



- 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. Hall of English

- 16. Stewart Hall17. Morrill Hall18. 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** 

1948-1949

WITH

RECORD FOR 1947-1948

VOLUME XLII

JUNE 1948

No. 4

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## CARSON CITY, NEVADA

STATE PRINTING OFFICE - - JACK McCarthy, Superintendent 1948

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#### OFFICE OF THE

## Board of Regents, University of Nevada Reno, Nevada, June 15, 1948

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 1947–1948, 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.

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## UNIVERSITY CALENDAR

1948-49	First	Semester	on and the second of the second
September 10	Friday	First meeting of facul	ty.
*September 10-14	Friday-Tuesday	First meeting of facul Orientation of new st	udents.
September 10	Friday	Dormitories open.	
		Required entrance exa	aminations.
		President's reception	
	• • •	entertainment for	
September 13	Monday, 7 p. m	Freshman mixer.	
September 15	Wednesday	Registration,	
September 16	Thursday	Instruction begins.	
October 30	_Saturday	Homecoming.	
November 11	Thursday, 8–12 a.	. mArmistice Day.	in ₹ Yik es i dek
November 13	Saturday	Grade reports due.	
November 24-29			
		Thanksgiving recess.	
		Christmas vacation be	egins.
December 18	_Saturday, noon	Dormitories close,	
January 1	Saturday	Dormitories open.	
		Instruction begins.	
		oonSemester examination	S.
January 28	Friday, noon	First semester closes.	

### Second Semester

February 1	_Tuesday, 9 a. m	Mental tests for new students.
February 1	Tuesday, 1 p. m	Examinations in English for all new students.
		new students.
February 2	Wednesday	Registration.
	Thursday	
	Saturday	
	Wednesday, 4 p. m.—	
	Wednesday, 8 a. m.	Easter recess.
May 7	Saturday	Mackay Day.
May 21	_Saturday	Engineer's Day.
May 30	_Monday	Engineer's Day. Holiday.
May 31-June 4	Tuesday-Saturday	Semester examinations.
June 3	_Friday	Meeting of Honorary Board of
<b>5 5</b>		Visitors.
June 4	Saturday, noon	Second semester closes.
		Phi Kappa Phi banquet and address.
Tuno 4	Saturday noon	Dormitorios alogo
June 5	Sunday	Baccalaureate address.
June 6	Monday	Commencement.
June 8	Wednesday, 9 a. m	Baccalaureate address. Commencement. Final grades on file with the
-		Registrar.

### Summer Session

		The state of the s
June 11	Saturday	Registration.
June 13	Monday	First term begins.
July 15	Friday	First term ends.
July 16	Saturday	Registration.
July 18	Monday	Second term begins. Second term ends.
August 22	Monday	Second term ends.

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<sup>\*</sup>All new students are expected to be present at the New Gymnasium at 7:45 a.m., Saturday, September 11, at which time required mental tests and examinations in English will be given.

# Officers of the University

## THE BOARD OF REGENTS

Hon. Chris H. Sheerin (1951)	Elko
Hon, John Cahlan (1951)	
HON. ALBERT HILLIARD (1951)	Reno
HON. MARY HENNINGSEN (1949)	Gardnerville
Hon. Silas E. Ross (1949)	Reno

#### OFFICERS OF THE BOARD

HON, SILAS E. ROSS,	Chairman	Reno
MISS CAROLYN M. BEG	скиги, Secretary Emeritus	San Francisco
	ecretary	

#### COMMITTEES OF THE BOARD

Executive Committee—Silas E. Ross, Mary Henningsen, Albert Hilliard.

Property Committee-SILAS E. Ross, ALBERT HILLIARD.

Instruction Committee-Chris H. Sheerin.

Library Committee-Albert Hilliard.

Student-Welfare Committee-Mary Henningsen, John Cahlan.

## HONORARY BOARD OF VISITORS

Hon. Edgar Eather, Chief Justice of	the Supreme CourtChairman
Hon. Hugh M. Wilson	Fallon, Churchill County
HON. I. R. CRANDALL.	Las Vegas, Clark County
HON. ROY T. WILLIAMS	Minden, Douglas County
Hon. C. J. Littlefield	Elko, Elko County
HON, DAVID PATTERSON	Dyer, Esmeralda County
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MRS. MILDRED CAMPBELL	Austin, Lander County
MRS. EVEREST HACKETT	Pioche, Lincoln County
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MRS. WILLIAM S. BOYLE	Reno, Washoe County
MRS. W. N. IRELAND	McGill, White Pine County

#### ADMINISTRATIVE OFFICERS

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

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

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

MRS. JEANETTE C. RHODES, B.A., Registrar.

James J. Hill, M.A., B.S., in L.S., Director of Libraries.

JOSEPH D. LYMAN, 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

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. FLORENCE PEACOCKE, Hostess of Artemisia Hall.

MRS. MABEL FULTON, Hostess of Manzanita Hall.

MRS. NELLIE WALDEN NELSON, Director of Dining Hall.

#### Colleges and Schools-

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.

#### 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—

5 2

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ROBERT LOCKE, M.D., Physician.

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

MISS MARY ROTTER, R.N., Assistant 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.

#### Clerical Staff-

MISS ALICE TERRY, Secretary to the President. MRS. MELBA McFarland, Stenographer, President's Office. MISS JACQUELYN MARSHALL, Clerk, President's Office. MRS. RAE ELDER PETERSEN, Clerk, President's Office. MRS. ADELAIDE STEINER, Clerk, Comptroller's Office. MISS ESTHER ROMANO, Clerk, Comptroller's Office. MISS MARY MOULTON, Clerk, Comptroller's Office. MRS. GENEVIEVE YORI, Clerk, Comptroller's Office. Mrs. Margaret Heinen, Clerk, Registrar's Office. MRS. ELIZABETH LEEDS SCOTT, Secretary to the Dean of Men. MRS, MARY E. GROVER, Clerk, Dean of Men. MRS. JACQUELINE ELDER, Secretary to the Dean of Women. MISS PEGGY BOYLE, Secretary to the Admissions Committee. MRS. GERALDINE GOULD, Secretary to the Home Studies Director. Mrs. Phoebe Swett, Secretary to the College of Agriculture. MRS. ARLENE BALL, Secretary to the Dean of Arts and Science. MRS. MARY LUE CARLSEN, Secretary to the Dean of Engineering.

#### Associated Students-

Joe T. McDonnell, B.A., Graduate Manager. Eugene Mastroianni, B.S., Graduate Manager. Miss Erma Capurro, Secretary to the Graduate Manager. Helen Brania, B.A., Executive Secretary, Y.W.C.A.

#### Alumni-

REX G. DANIELS, B.A., Secretary.

<sup>1</sup>Resigned June 30, 1948.

## 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

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)

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)

<sup>\*</sup>The date following each description is that of the beginning of service in the University. A second date indicates the beginning of service in present rank when this differs from the date of original appointment.

- 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 CYRL 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)

#### Faculty

- PHILIP GERALD AUCHAMPAUGH, 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)
- CARL H. BARTON, B.S., Captain, United States Army; Assistant Professor of Military Science and Tactics for Air. B.S., Oregon State College, 1941. (1947)
- E. MAURICE BEESLEY, Ph.D., Associate Professor and Chairman of the Department of Mathematics.

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

- WILLIAM DWIGHT BILLINGS, Ph.D., Associate Professor of Biology.

  A.B., Butler University, 1933; M.A., Duke University, 1935; Ph.D., 1936. (1938-1943)
- James E. Bingham, M/Sgt., United States Army, Instructor in Military Science and Tactics.
- FREDERICK L. BIXBY, C.E., Professor of Civil Engineering. B.S., University of California, 1905; C.E., University of Nevada, 1918. (1919-1926)
- 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 and Chairman of the Department of Civil Engineering.
  - B.S., University of Arizona, 1928; M.S., 1929; C.E., 1933. (1947)

- JOHN S. BRITTAN, M.A., Instructor in Economics, Business, and Sociology.
  - B.A., Montana State University, 1942; M.A., University of California at Los Angeles, 1946. (1947)
- 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, 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 and Chairman of the Department of Mining Engineering.
  - B.S., University of Nevada, 1907; E.M., 1911. (1908–1939)
- BRUCE C. CATOR, B.S., Lt. Colonel, United States Army, Assistant Professor of Military Science and Tactics for Air. B.S., United States Military Academy, 1941. (1947)
- LEONARD EDWIN CHADWICK, B.S., Assistant Professor of Economics, Business, and Sociology.
  - B.S., University of California, 1935. (1939-1942)
- BENJAMIN FRANKLIN CHAPPELLE, Ph.D., Professor and Chairman of the Department of Foreign Languages.
- A.B., Dickinson College, 1908; A.M., 1911; Diplomé de Alliance Française, University of Politiers, 1914; Ph.D., University of Pennsylvania, 1917; Officer d'Académie, 1934. (1917–1922)
- BERTRAND FRANKLIN COUCH, Instructor in Mine Accounting. (1924)
- ALLAN CREE, M.A., Assistant Professor of Geology.
  - A.B., Arizona State Teachers College, 1933; M.A., Ohio University, 1935. (1946)
- 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)
- 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)
- J. LYMAN EARL, B.S., Instructor in Electrical Engineering. B.S., University of Nevada, 1947. (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)
- WILLIAM R. FAIR, B.S., Instructor in Electrical Engineering. B.S., California Institute of Technology, 1943. (1947)
- Mary C. Ferguson, B.S., Instructor in Physics. B.S., University of Nevada, 1943. (1947)
- HARVEY IRVIN FISHER, Ph.D., Assistant Professor of Biology.

  B.S., Kansas State College, 1937; Ph.D., University of California, 1942. (1947)
- VINCENT P. GIANELLA, Ph.D., Professor and Chairman of the Department 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 and Chairman of the Department 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)
- 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)
- CLAUDE W. HAMMOND, B.S., Instructor in Metallurgy. B.S., University of Nevada, 1933. (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)

CHARLES ROGER HICKS, Ph.D., Professor and Chairman of the Department 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 and Chairman of the Department 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)

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, Ph.D., Professor and Chairman of the Department 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)

GORDON E. JACOBER, A.B., Assistant Professor of Geology.

A.B., Johns Hopkins University, 1941. (1947)

Keiste Janulis, M.S., Instructor in Journalism.

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

PAUL HOLME JENSEN, Ph.D., Instructor in Education.

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

HELEN JOSLIN, Instructor in Art. (1939)

- LAWTON B. KLINE, 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)
- PHILIP A. LEHENBAUER, Ph.D., Professor and Chairman of the Department of Horticulture.
  - A.B., Westminster College, 1907; A.M., Millikin University, 1909; Ph.D., University of Illinois, 1914. (1914–1925)
- Sigmund W. Leifson, Ph.D., Professor and Chairman of the Department 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 and Chairman of the Department of Biology.
  - A.B., University of Utah, 1930; M.A., 1932; Ph.D., Stanford University, 1937. (1938–1943)
- PERRY B. McElroy, Jr., Captain, United States Army, Assistant Professor of Military Science and Tactics for Air. (1946)
- 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 and Chairman of the Department of Physical Education for Men.
  - 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)
- IRA LA RIVERS, B.S., Assistant Professor of Biology. B.S., University of Nevada, 1937. (1948)
- 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)
- KATHARINE NORRID MERGEN, B.A., Instructor in Journalism. B.A., University of Nevada, 1936. (1944)

MAYA MILLER, M.A., Instructor in English.

B.A., Principia College, 1936; M.A., Cornell University, 1939.

MILTON MILLER, B.A., Instructor in English.

BA. University of Wisconsin, 1947. (1947)

RICHARD G. MILLER, B.A., Instructor in Biology.

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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)

OWENS, 1 Ph.D., Assistant Professor of Mathematics.

A.B., University of California, 1936; M.A., 1937; Ph.D., 1941. (1946)

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 and Chairman of the Department 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, B.A., Colonel, United States Army; Professor of Military Science and Tactics.

B.A., 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)

- Bette Poe, B.A., Instructor in Business Administration.
  - B.A., University of Nevada, 1945. (1945)
- 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 and Chairman of the Department of Music; Director of Music.

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

- KATHERINE REBECCA PRICE, M.A., Instructor in English.
  - A.B., Barnard College, 1940; M.A., Columbia University, 1942. (1947)
- KINGSLEY PRICE, Ph.D., Assistant Professor of Philosophy.

A.B., University of California, 1938; M.A., 1942; Ph.D., 1946. (1947)

- Marjorie Ann Price, A.B., Instructor in Physical Education for Women.
  - A.B., Arizona State College, 1947. (1947)
- 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)
- F'rank 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)
- 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 and Chairman of the Department of Electrical Engineering.
  - B.S. in E.E., 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)
- George Wallace Sears, Ph.D., Professor and Chairman of the Department 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)
- 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)
- James Coleman Smee, B.S., Lt. Colonel, United States Army; Assistant Professor of Military Science and Tactics.
  - B.S., University of Kentucky, 1938. (1946)
- CLAUDE CARSON SMITH, Ph.D., Associate Professor of History and Political Science.
  - A.B., Carson-Newman College, 1921; M.A., University of Oklahoma, 1924; Ph.D., Stanford University, 1947. (1929–1935)
- WILLIAM I. SMYTH, E.M., Professor of Metallurgy and Mining. B.S., University of Nevada, 1914; E.M., 1927. (1925-1947)
- Harrison M. Stoneback, M/Sgt., United States Army, Instructor in Military Science and Tactics.
- CARL R. SWARTZ, B.A., Instructor in Economics, Business, and Sociology.
  - B.A., Chico State College, 1942. (1947)

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

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

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

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)

Louis Titus, M.S., Professor of Farm Mechanics; Chairman of the Department of Agronomy.

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

F'RED W. TRANER, Ph.D., Dean of the School of Education; Professor of Education and Chairman of the Department of Secondary Education.

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James R. Van Dyke, M.E., Professor and Chairman of the Department of Mechanical Engineering.

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JACQUELYN RUTH VAN GAASBEEK, B.S., Instructor in Physical Education for Women.

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WILLIAM VAN TASSEL, B.S., Instructor in Mechanical Engineering.

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SEYMOUR MURRAY VINOCOUR, A.B., Instructor in English.
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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)

JOSEPH WILLIAM WEIHE, B.S., Instructor in Mathematics. B.S., University of Nevada, 1946. (1946-1947)

HARRY EUGENE WHEELER, Ph.D., Associate Professor of Geology. B.S., University of Oregon, 1930; M.A., Stanford University, 1932; Ph.D., 1935. (1935-1942)

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, M.S., Professor and Chairman of the Department of Animal Husbandry.
  - B.S., Kansas State Agricultural College, 1905; M.S., University of Illinois, 1913. (1914)
- METTIE ANN WINSTON, M.A., Instructor in English.

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ELDON WITTWER, Ph.D., Professor and Chairman of the Department 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)

James Reed Young, Ph.D., Professor and Chairman of the Department of Psychology.

B.L., Berea University, 1907; A.B., Stanford University, 1909; A.M., 1910; Ph.D., University of Chicago, 1916. (1915–1920)

## Assistants, Fellows, and Lecturers

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

Weld Arnold, 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)

KENNETH BRADSHAW, B.S., Assistant in Mathematics. B.S., Iowa State College, 1945. (1947)

MABEL MARIANI BROWN, B.A., Assistant in English and Foreign Languages.

B.A., University of Nevada, 1928. (1946)

SHIRLEY CAMPBELL, B.S., Fellow in Chemistry. B.S., University of Nevada, 1947. (1947)

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)

- MANUEL FELIX DRUMM, B.S., Fellow in Chemistry.

  B.S., Monmouth College, 1945. (1946)
- R. Guild Gray, B.A., Lecturer in Education.

  B.A., University of Nevada, 1936. (1947)
- Louis B. Hall, B.A., Assistant in English.

  B.S., Pennsylvania State College, 1939. (1947)
- ROBERT W. HOUSER, B.A., Assistant in Mathematics.
  B.A., Oberlin College, 1947. (1947)
- GARETH HUGHES, Lecturer in Dramatics. (1947)
- EDWARD M. HULME, A.M., Lecturer in History and Political Science.
  - A.B., Stanford University, 1897; A.M., Cornell University, 1902. (1947)
- LAURABEL HUME, M.A., Assistant in English.

  B.A., Scripps College, 1933; M.A., Stanford University, 1935.
  (1947)
- MILDRED KLAUS, B.A., Assistant in Secondary Education. B.A., University of Nevada, 1926. (1941)
- Rose Nannini Meredith, B.A., Assistant in Foreign Languages. B.A., University of Nevada, 1947. (1947)
- ABRAHAM RAVVE,<sup>2</sup> A.B., Fellow in Chemistry.
  A.B., University of Southern California, 1943. (1946)
- Penelope Rice, Ph.D., Assistant in Home Economics. B.S., Kansas State College, 1924; Ph.D., Columbia University, 1925. (1943)
- 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)
- LUCILLE KATHRYN SULLIVAN, B.A., Assistant in English. B.A., University of Nevada, 1945. (1946)
- Janice Eileen Swan, B.A., Assistant in English. B.A., Stanford University, 1946. (1946)
- 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)
- MARGARET JENSEN WILLIAMS, M.A., Assistant in Mathematics. B.S., University of Nevada, 1938; M.A., 1940. (1941)
- THOMAS C. WILSON, B.A., Lecturer in Business Administration. B.A., University of Nevada, 1930. (1948)
- ETHEL CROUCH WRIGHT, B.A., Assistant in Psychology. 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, Mobley, S. Palmer, Rhodes, Scott, Traner, Wheeler.

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

#### Advisory Council-

BEESLEY, BILLINGS, GIANELLA, GORRELL, INWOOD, POPE, SANDORF, SEARS, SMYTH.

#### Assemblies and Lectures-

GORRELL, ELDRIDGE, A. S. U. N. President.

#### Athletics-

WILSON, RHODES.

#### Campus Calendar for Student Activities— GRIFFIN, MARTIE. MOBLEY, POST, SAMETH.

#### 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, LAIRD, LEIFSON, SEARS, WITTWER.

#### Health-

LOWBANCE, GRIFFIN, LOCKE, MARTIE, MOBLEY, SMEE, A. S. U. N. President, A. W. S. President.

#### Library---

CHAPPELLE, ELDRIDGE, HICKS, HILL, W. PALMER, SR., SWIFT, WEBSTER, WILLIAMS.

#### Orientation-

IRWIN, BYRD, DEMING, GORRELL, GRIFFIN, MOBLEY, MERGEN, MOOSE. SANDORF, VAN DYKE, 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, IRWIN, MELZ, SEARS, VAWTER, WHEELER.

#### Rhodes Scholarship Nominating Committee— Leifson, Webster.

#### Schedules-

WILLIAMS, HICKS, LEHENBAUER, VAN DYKE.

#### Scholarships and Prizes-

Brown, Carpenter, Griffin, Mobley, Sears.

#### Student Affairs-

GRIFFIN, DEMING, MOBLEY, POPE, A. S. U. N. President, Sagebrush Editor, Y. W. C. A. Secretary.

#### Vocational Guidance—

IRWIN, BILLINGS, GRIFFIN, MOBLEY, RUEBSAM, VAN DYKE.

# Sketch of the University

## THE UNIVERSITY AND ITS FUNCTION

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 State 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. 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 1920 a federal radio station was established on the campus, and in 1921 an engineering experiment station began work.

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. 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. Fleishmann 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 unified 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. An Alumni Secretary, Rex Daniels, was appointed in 1946 to aid in the activities of growing groups of Nevada graduates. 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 Department 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 post-war program during 1947-1948.

## 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 hierarchy 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 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, geology, 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 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 teacher's high school diploma, giving title to a teacher's 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, of Electrical, and of 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,

such subjects in the College of Arts and Science as are necessary to establish in the student's mind a thorough knowledge of agricultural problems.

The 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 public service departments under the direction of the President and Board of Regents of the University:

# STATE ANALYTICAL LABORATORY

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

## FOOD AND DRUG CONTROL AND WEIGHTS AND MEASURES

The Act of the Legislature in 1909 which established the Food and Drugs Control and Weights and Measures Department, provides that all rules, regulations, definitions, and decisions proclaimed by the Secretary of Agriculture for the enforcement of the national law shall be adopted by this department in the enforcement of the State law. The Department of Weights and Measures is also charged with the enforcement of the Petroleum Products Inspection Act. The laboratory is located at the corner of Fifth and Sierra Streets, Reno.

#### STATE VETERINARY CONTROL SERVICE

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

#### STATE BUREAU OF MINES

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

# 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 most 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 is contained in a University bulletin which may be obtained upon application to the Director.

# 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 the social welfare of the men students is under the special supervision of the Dean of Men. Jurisdiction They talk - In

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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

JAny member of the faculty not teaching during any given college year shall not have the privilege of voting in faculty meetings during that year.

approval of the President and of the Board of Regents. A copy of the minutes must be filed with the President immediately following each meeting.

#### DEPARTMENTS

The department is the educational unit in the University. The 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 department 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, and a large lecture room. The second floor is devoted to home economics and biology, and includes the dining room and the food and clothing laboratories, as well as the biological laboratories. The basement includes laboratories for dairying, farm crops, 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. Thoroughly renovated and remodeled on the interior, this building has been occupied from the beginning of 1936 by the Staff of the Agricultural Extension Service of the University. (1902)

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)

<sup>\*</sup>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 Botany and Horticulture. (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 appoximately 3,500. The building provides offices and facilities for the Departments of Physical Education, Athletics, 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 fire-proof 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 the 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 basket ball 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 is 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. 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 on the interior in early 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 the 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. The noted purebred Holstein herd bull, Spring Farm Columbus, was a gift from E. L. Cord in 1945.

Instruction and laboratory work in Dairy Husbandry is 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

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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 especial 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 has recently been made a depository of the Army Map Service.

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 States 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 varied collection of records and books and a Capeheart phonograph, including a collection of representative records donated by the Carnegie Corporation of New York City in 1935. Records, scores, and phonograph are available to the student body and the community for

special reference use in the music rooms. The University also provides a number of musical instruments for student use.

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, 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 completely equipped with power sources and electrical machines making possible every type of direct and alternating current experiment.

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 completely 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, loud-speakers, 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, wiers, 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 petropraphic 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 student 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 micro- and micro-chemical 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 show cases on the left-hand side of the museum present a collection of minerals arranged scientifically according to Dana, followed by a systematic collection of rocks; the cases on the

right-hand side of the museum are devoted to displays of Nevada ores of the precious and base metals and of Nevada economic minerals, arranged according to counties, while the cases on the center aisle contain collections of minerals arranged according to their economic uses.

On the mezzanine floor 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 easts.

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 and attractive Joseph D. O'Brien mineral and curio collection, the gift of F. S. Markam.

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 mam-

mal 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.

#### HERRARIA

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 himeslf. 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

ono national and anti-			
	Low	Moderate	Liberal
*Tuition	None	None	None
Board, 8½ months	\$390.00	\$415.00	\$440.00
Room	80.00	135.00	270.00
<sup>3</sup> Laundry	25.00	35.00	50.00
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	30.00
) <sub>**</sub> .			
*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.

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 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 necessarv 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 is it 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 PROP-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.

liberate estimate, with the exception of books and fees, applies to students living elsewhere.

2Students from outside the State of Nevada must add a tuition of \$100

<sup>2</sup>Students from outside the State of Nevada must add a tuition of \$100 each semester.

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

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.

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 thy include the cost of special uniforms needed in some departments, such as the gymnasium uniforms. sium 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 two-thirds rebate is allowed on this nonresident tuition charge if the student formally withdraws between the end of the third week and the end of the eighth week. No rebate is allowed if the student withdraws after the end of the eighth week.

## 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. certain social advantages, along with good living conditions, and are under the supervision of the University administration. 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) \$36.00.

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

4. Take care of their own rooms and linen.

<sup>\*</sup>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.

Mens' 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 six 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 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 Acommodations—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 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, table ware, 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 eard 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 to 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 taking drill as part of a basic course must make a deposit of \$20. Note—No deposit is required of advanced students.

#### 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 \$13.00 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, 468	\$5.00
Agronomy 216, 315, 316, 317, 318, 401, 415, 464	3.00
Agronomy 201, 202	
Animal Husbandry 203	10.00
Animal Husbandry 356, 359	5.00
Animal Husbandry 461, 462	3.00
Art 101, 102, 103, 105, 106, 253, 254	3.00
Associated Students Fee.	13.00
Bacteriology 351	5.00
Botany 103, 355	4.00
Botany 203, 231, 364, 475, 476	4,00
Botany 222	
Botany 315, 317, 375	
Botany 370	
Business Administration 221, 222.	5.00
Change of registration per course (see page 87).	1.00
Chemistry 101, 102, 231, 232, 242, 312, 333, 341,	
342, 391, 443, 497, 498, 514, 546, 553, 554	
Chemistry 451, 452	4.00
Chemistry 599 (fee per credit hour)	
Civil Engineering 241	
Civil Engineering 242, 363, 367	
Civil Engineering 369, 372	
Dairy Husbandry 102, 354, 355	
Dairy Husbandry 454	
Deposit, General	
Deposit, Military (Elementary course students,	
excepting military bandsmen)	20.00
Advanced students telegrapes of o	****

Advanced students take courses at own expense to be arranged).

	Fees
<sup>2</sup> Diploma (Degree or certificate)	\$6.00
Drawing Outfits	
Education 133	1.50
Education 141	2.00
Education 388	1.50
<sup>1</sup> Electrical Engineering 31-32, 91, 92, 93, 94	5.00
Electrical Engineering 353, 354, 457, 463, 464,	
469, 481, 482	5,00
Farm Mechanics 211, 220, 332, 335, 341, 353, 346	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	15.00
Home Economics 131, 132, 357, 483, 485	8.00
Home Economics 250	5.00
Home Economics 499	12.00
Home Economics 115, 116, 118, 366, 367, 495, 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 103, 205	5.00 per credit
Mechanic Arts 226.	5.00
Mechanic Arts 220.	7.50
Mechanic Arts 207	(To be arranged)
Mechanical Engineering 364, 365	5.00
Mechanical Engineering 480	2.50 per credit
Metallurgy 341	
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 153, 154, 119, 357, 358, 363, 377, 378	3.00
Physics 205, 206, 493, 494	1.50 per credit
Physics 368	5.00
Physics 375, 376	6.00
Poultry 101	5.00
Poultry 108	2.60
Reexamination Fee	1.50
Special Examinations for Entrance or Advanced	
Standing, each	3.00
Sports (women, depending upon activity) 1.00 to	12.00
Teacher Appointment Service	
Transcript Evaluation	
*Transcript of student record	1.00
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<sup>1</sup>Fee depends on project undertaken.

2If 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 Univer-

sity.

\*When two or more transcripts of record are as cd 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 he furnished with a transcript of record unless and until all accounts with the University have been fully paid.

	Fees
Tuition to non-Nevadans	00.001
Visitors	2.00 per hour
Vocational Interest Test, Cost of Material	.25
Zoology 103, 259	
Zoology 333, 335, 337	
Zoology 101, 322, 352, 364	3.00
Zoology 346	
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 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 Illnesses 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 Illnesses 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  $\Lambda$ . 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.

 $\Lambda$  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, swimming, 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. American football, baseball, track, basket ball, and tennis are the sports of special prominence at present. The main policy of the University is to foster the spirit of honor and manliness, to prevent the development of commercialism or professionalism in athletics, and to see to it that athletic sports do not encroach upon the claims of scholarship.

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 SCIENCE AND TACTICS

1. The Reserve Officers' Training Corps is organized under authority contained in the National Security 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 local units offer Infantry and Air Force training. Basic work

in the two courses is identical. Completion of basic courses or their equivalent is a prerequisite for enrollment in 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:

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 student 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, and may be commissioned as soon as he has reached the age of 21 and has completed four years work at the college level.

4. Courses leading to a reserve commission as Second Lieutenant of Air Force:

Freshman Year (basic) Military 101, 192.

Sophomore Year (basic) Military 201, 202.

Junior Year (advanced) Military 311, 312, 313.

Senior Year (advanced) Military 411, 412.

When the student 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 Air Reserve of the Department of the Air Force and may be commissioned as soon as he has reached the age of 21 and has completed four years of work at the college level. Only upperclassmen in the Engineering College are eligible for enrollment in the advanced course. All specialize in Aircraft Maintenance Engineering. No pilot training is offered in this course.

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

6. Every male student will be required to complete the two-year course of basic military training unless exempted therefrom by the PMS&T.

7. The following are prohibited by law from enrollment and are automatically exempted by the PMS&T 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 completion of 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 granted exemptions by the PMS&T:
- a. Those who have satisfactorily completed, at an educational institution, equivalent training under supervision of an officer of the Army regularly detailed as PMS&T. Exemptions may cover part or all of basic training. A student who enters with one year of advanced standing in Military, will be exempted during his freshman year and enrolled in the second year of military work during his sophomore year.
- 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 sufficient to justify exemption from the basic requirement is sometimes 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 equiavlent training in the Naval Reserve or the Marine Corps Reserve. Freshmen enrolled in either of these reserves may have the University military requirement deferred for one year. Their reserve training during this year will be evaluated by the PMS&T at the beginning of the sophomore year. Failure to acquire the normal total of two substitute credits will be deemed sufficient justification for requiring the full two years of ROTC training thereafter.
- 9. The U. S. Government furnishes uniforms and instructional equipment. Advanced course students also receive \$75 per month while at camp and commutation of rations amounting to about \$24 per month for 18 months, providing this does not duplicate other allowance.

- 10. The arms, equipment, and uniforms issued to students for military training are the property of the United States for which the University is financially responsible. To protect the University against any charge for loss or damage to government property arising from misuse or neglect on the part of the student, a deposit of \$20 will be required from each student registered in basic military courses, with the exception of military bandsmen.
- 11. Cadets who obtain reserve commissions are eligible for immediate active duty as Reserve Officers for tours of one to three years. Air Force officers are eligible for a year of pilot training. Any Infantry or Air Force Officer on such active duty may embark on a three year 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 and may offer this credit to satisfy the requirements of a minor in the College of Arts and Science. Each case will be considered separately by the Professor of Military Science and Tactics, 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.

## 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 provisions 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 (R. O. T. C.) "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 records in R. O. T. C. 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 a gold, a silver, and a bronze medal.

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 Letters—Members of the rifle teams are eligible for these awards.

Other Medals and Prizes—For particulars as to other awards for which cadets are eligible, see current Regulations for Department of Military Science and Tactics.

# 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 Committee on Admissions as soon as possible after the close of the school in June in order that they may be examined to determine whether they meet the University entrance requirements. Receipt of credentials will be acknowledged and an application blank for admission forwarded to the student. Failure to file credentials may cause registration to be delayed and the student to be greatly inconvenienced.

## Admission by Transfer

A fee of \$2 will be charged for evaluation of transcripts of record from other institutions; this fee must accompany all requests for such evaluation. In the event that the applicant later enrolls in this University, the \$2 will be applied on his registration fees. The advanced standing granted on transcripts of record is valid only if the applicant enrolls within one year following the date on which the record was submitted for evaluation.

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

Students who have been graduated from a full four-year high school and have completed additional work in a normal school, college or university may receive advanced standing as stated below.

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.

Graduates of a two-year normal school or junior college will in general be given two years' credit on advanced standing in the College of Arts and Science only. Such students, however, will be expected to fulfill all requirements for graduation, including the special requirements outlined for the freshman and sophomore years with the understanding that education courses may be used by normal school graduates to satisfy the social science requirement.

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; for a definition of entrance deficiencies, see Specific Subject Requirements, below.

An applicant from a junior college or other institution of collegiate standing must submit evidence that he has fulfilled our entrance requirements for regular freshman standing, or that he has either: (a) at least 60 semester credits with a grade average of C or better, and acceptable for advanced standing in the college or school to which admission is sought; or (b) not less than 15 semester credits with a grade average of B or better, and

acceptable for advanced standing in the college or school to which admission is sought.

## REQUIREMENTS FOR ADMISSION TO REGULAR STANDING

- 1. 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 fifteen units of acceptable high school or preparatory work. A "unit" represents a year's study in any subject in a secondary school. Two periods of laboratory work, or shop work, count as the equivalent of one recitation.
- a. 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.
- b. Restricted Freshmen. A restricted freshman 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.
- c. 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 in the Index.
- 2. Acceptable Units. Subjects acceptable for admission include the subjects numbered 1-33. See Subjects Accredited for Admission in the Index.
- a. Ten Academic Units. Of the fifteen units required for admission at least ten must include subjects numbered from 1-20, inclusive. See Subjects Accredited for Admission in the Index.
- 3. QUALITY UNITS. Of the acceptable units presented by applicants who are not graduates of Nevada high schools for admission to first-year standing, six units must carry grades of 80 percent or better, and 4 of the 6 must be in subjects 1-20, inclusive. See Subjects Accredited for Admission in the Index.
- 4. Specific Subject Requirements. Of the fifteen units required for admission to regular standing each college makes its own specific subject requirements, as follows:

The College of Arts and Science
English, 3 units
Mathematics, 2 units—algebra and/or geometry

The College of Engineering<sup>1</sup>

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

English, 3 units Social Science, 1 or 2 units Mathematics, 2 units—Algebra and/or geometry. Natural Science, 1 or 2 units

- 5. Removing Entrance Deficiencies—
- a. Time requirement. 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.
- b. Method. Entrance deficiencies may be removed by either of the following methods:
  - (1) College credit may be canceled at the rate of four college credits for each high school unit necessary to fulfill the requirements of the college in which the student is registered.
  - (2) Examinations may be taken within the first year of residence at the University in sufficient of the subjects (1-33) listed as accredited for admission to fulfill the requirements of the college in which the student is registered.
- c. Special students. In addition to the methods 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 in the Index.

 $<sup>^1</sup>$ It is recommended that the entering student present all the subjects here listed, especially that of  $1\frac{1}{2}$  units of algebra, otherwise it is probable that he will be graduated in five years instead of four. Consult meaning of the term "restricted" freshman, and see also mathematics 151 and mathematics  $\Lambda$ .

It is advised that the electives include 2 units of foreign language, preferably modern language. In certain meritorious cases some entrance credit, not exceeding 1 unit, may be granted for practical experience.

	SUBJECTS ACCREDITED FOR ADMISSION	<b>U</b> 1	nits²
1.	English (a)		
	English (b)		
	English (c)		
	English (d)		
	English (e) Public Speaking		1
	English (f) Journalism		1
2.	French (a)		1
	French (b)		1
	French (e)		1
	French (d)	•••••	1
3.	German (a)		1
٠.	German (b)		1
	German (c)		1
	German (d)		1
4.	Spanish (a)		1
	Spanish (b)		1
	Spanish (e)		1
	Spanish (d)		1
5.	Other Languages.		
6.	World History (a)		. 1
	Medieval and Modern History (b)		1
	American History (c)		1
	Civies (d)	1 (	r 1
7.	Economics	2 \	1
8.	Sociology		1
9.	Commercial Law	1	or 1
10.	Commercial Geography	1	or 1
11-	Commercial Geography12. Others	-2	U1 -
13.	Algebra (a)		. 1
	Plane Geometry (b)		1
	Advanced Algebra (c)		$\frac{1}{2}$
	Solid Geometry (d)		- į
	Ingonometry (e)		- +
	Other nonvocational courses.		- 2 1
14.	General Science		1
15.	Physics		1
16.	Chemistry		1
17.	Physical Geography	1	or 1
18.	Botany	2 1	or 1
19.	. D1010gy	- 1	or l
20.	Physiology or Hygiene.	2	1
21.	Drawing	1	to 2
	A unit represents a section	2	

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

#### SUBJECTS ACCREDITED FOR ADMISSION

	Subject	Units
22.	Music	<u>1</u> to 2
23.	Agriculture	
24.	Home Economics	
25.	Manual Training	$\frac{1}{2}$ to 3
26.	Shopwork	ī to 3
27.	Bookkeeping	<del>1</del> to 3
28.	Stenography	
	Typewriting	
30.	Trades and Industries	
31.	Vocational Work	1
32.	Commercial Arithmetic or Applied Mathematics	$\frac{1}{2}$ or 1
	R.O.T.C.	

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

### Admission of Persons Who Are Not Candidates for Degrees

- 1. Special Students. a. Requirements. Persons of serious purpose and good character who are twenty-one years of age or more and 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 Committee on Admission, 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.
- b. Registration. Special students will be expected usually to register in not fewer than ten hours in courses of elementary character which may be counted for admission. They will be permitted to register in advanced courses only upon the approval of their Dean and the head of the department concerned. Special students are subject to all the rules relating to registration and scholarship.
- c. Obtaining Regular Status. Special students may obtain regular status by removing entrance deficiencies. See Removing Entrance Deficiencies, Index.

A special student who has successfully carried the regular prescribed work of his college during four semesters and who has made an average of 2 grade points in all the hours for which he has been registered, except cases of W, and has no unremoved conditions or failures, will be allowed to matriculate as a regular

sophomore student.

If he has made an average of 2.5 grade points for every hour for which he has been registered, except cases of W, and has no unremoved conditions or failures, he will be allowed to matriculate as a regular junior student.

2. Visitors. With the consent of the Dean and the instructors concerned, regular visitors may be enrolled as such during the regular registration period. 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 the end 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 recieve a diploma of graduation or a teacher's certificate without previously having passed a satisfactory examination upon the Constitutions 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. Permissive Reduction. Any student may at any time enroll in as low as three credits less than his course requires, but to take less than this amount the student must have the dean's permission.
- 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 deficiences 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 Junior C.
      - (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 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.

<sup>&</sup>lt;sup>1</sup>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.

5. Scholarship Average. In determining scholarship average the sum of the grade points received for each hour for which the student is registered, excepting cases of W, 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 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 scholastice 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, 126 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.

<sup>\*</sup>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.

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

Graduates of the College of Agriculture receive the degree of Bachelor of Science in Agriculture. Graduates 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 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 1947-1948 are the following:

## Commencement, 1947

- June 7—Phi Kappa Phi Address, "Some Aspects of Human Freedom," by Dr. Henry Greenwood Bugbee, of the University of Nevada.
- June 8—Baccalaureate Address, "Unchanging Truth in a Changing World," by Thomas D. Ewing, Director and Pastor, Westminster House, University of California.
- June 9—Commencement Address, "Reality in 1947," by Dr. John Wendell Dodds, Dean of the School of Humanities. Stanford University.

# Public Lectures and Assemblies

- May 14—"Alaska, Present and Future," by Sydney R. Montague, authority on Alaska.
- August 4—"Adventures in Creative Writing," by Professor Walter Campbell, writer, and teacher of creative writing at the University of Oklahoma.
- November 12—"The Development and Problems of Palestine," illustrated lecture by Dr. Theodore Jackman, authority on Palestine.

- November 13—"Arabs and Jews in Palestine," illustrated lecture by Dr. Theodore Jackman.
- January 13—"Parieutin, the World's Newest Volcano," illustrated lecture by Dr. Howell Williams, under the auspices of the Sigma Xi club.
- January 17—"Life in Modern Turkey," lecture with recordings and motion pictures, given by Mr. Tahsin Karacabey, Turkish student at the University of Nevada.
- February 9—"The Fine Art of Living," and "Literature and American Culture," lectures by Dr. Edward Howard Griggs, noted teacher, writer, and lecturer.
- February 25—First "University Music Hour," concert by the Lorolu Trio.
- March 12—"What Europe Expects from America," lecture by Dr. Norman Buchanan, lecturer and author formerly of the University of California.
- March 15—"What to Expect from Russia," a Robert Lardin Fulton lecture by John Scott, of the European staff of *Time* magazine.

## 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 1947-1948

- 33 Jo. 202.	
Mark Yori, '36	President
Louis Peraldo, '41	Vice President
Wayne Hinckley, '27	Post President
Rex Daniels, '46	Director of Alumni Office

# Alumni Executive Committee

Central

Lino del Grande, '34.
Nevada Pedroli, '27.
Mel Hancock, '30.
John Benson, '36.
Bill Blakley, '32.
Gladys McDonnell, '34.
George Lohse, '35.
Blythe Bulmer, '33.
Kelly Lyon, '29.
Jack Walther, '31.
Myneer Walker, '41.
Sessions Wheeler, '34.
Loriamae Bankofier, '36.
Frank McCulloch, '41.

Walter States, '38.
Leon Etchemendy, '42.
Charles Mapes, '42.
Joe T. McDonnell, '33.
Rodney Boudwin, '44.
Jack Myles, '33.
Carl Digino, '47.
Bill Parish, '45.
Merle Snider, '43.
Max Jensen, '38.
Jim Melarkey, '47.
Georgia Cole, '36.
Anthony Zeni, '22.

### Regional

Kirk Day, '46	TT/:
Pete Walters, '34	Winnemucca
Wes Goodner 242	EIKO
Wes Goodner, '42	Fallon
Harley Harmon, '46	Las Vegas
Marjorie Phillips, '41	Las Vegas
Ray Hackett, '41	San Francisco, California
Dave Williamson	Hawaii
Elbert Walker, '34	New York, New York
Eugene Tidball, '47	Ruth
Emery Graunke, '37	Gardnerville
Margery Cavanaugh, '34	Tonopah
Fred Baldini, '31	Battle Mountain
Sam Arentz, '34	Pioche
Ken Johnson, '34	Carson City
Eva Adams, '28.	
Ed Montgomery, '34	
Catharine Huntley, '20	Riverside, California
Dave Jackson, '32	
Hank Clayton, '41	Yerington
Bill Melarkey, '20	

#### American Association of University Professors

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

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. (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

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

Delta Sigma Rho—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—This is 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. Local chapter established in 1933.

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

Pershing Rifles—A national honorary military society for cadets enrolled in basic courses. A petition for a local chapter has been submitted to the national headquarters and it is expected that the new chapter will be installed before September, 1948.

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. (Local chapter 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 upperclass men. 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 Department 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—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 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 nationwide 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 hold 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 two weeks each month in the Fine Arts room in the library. Meetings are held monthly.

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' domitories 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 (1913), 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.

#### 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

- 1. Upright moral character.
- 2. General scholarship.

<sup>\*</sup>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

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.

6. Financial need is considered only when two students other-

wise possess equal qualifications.

One half of this award is paid in the fall and the other half in the spring semester.

#### ASSOCIATED WOMEN STUDENTS' SCHOLARSHIPS 3. Established 1918

The Associated Women Students of the University of Nevada present an annual scholarship of \$25 to the woman student who attains the highest average grade for the year and who receives no other scholarship.

#### 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 recommenda-

tion, and college aptitude tests.

Each scholarship is paid in two installments: one each semes-The Committee reserves the right to withhold the second payment should the student's first semester record prove unsatisfactory.

#### THE HORACE P. BOARDMAN SCHOLARSHIP IN 5. 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. should have earned either junior or senior standing as a duly Both the prinenrolled student in the University of Nevada. cipal 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 19/2

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. Sophie 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 scholar-ship 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 win-

ner 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 minor in music.

7. Financial need is a consideration. For a student earning

all or a 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.

#### THE GRAND ARMY OF THE REPUBLIC SCHOLARSHIP 16. 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.

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.

#### 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.

#### THE HERD & SHORT SCHOLARSHIP 21. 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 Economies, 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 other-

wise possess equal qualifications.

One half of this award is paid in the fall and the other half in the spring semester.

#### THE MRS. CARL OTTO HERZ SCHOLARSHIP Established 1926

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. 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 upperclass man or women 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.

### 24. 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 major 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 same conditions.

# 25. 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.

#### 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 a student intending to minor 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.

# 28. 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 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.

### 29. 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 head 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

a in the spring semester.

#### 30. 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 be majoring 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 finan-

cial 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.

#### 31. 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.

#### 32. 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.

#### 33. 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 \$2,000) 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 southnate 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—Јони Оснецтвее, Reno.

1926—Fred Siebert, Reno.

1928—Fred Anderson, Carson City.

1929—Francis Duborg, Reno.

1932—ALDEN SIBLEY, Reno.

1937—RUSSELL W. McDonald, Reno.

#### WAR SERVICE SCHOLARSHIPS

In addition to ordinary appointments, the Rhodes Trustees have created a limited number of War Service Scholarships for which men will be eligible who at any time since October 1, 1940, were between the ages of 19 and 25 years, and who have completed at least one year of war service. For the purposes of the

Rhodes Scholarships, war service is recognized as not merely membership in the Armed Forces, but as also various kinds of civilian war work, such as scientific research, education, Government service, and positions in industry or agriculture which contributed to the war effort. Any work will be considered as war service for which Draft Boards have granted deferment. Candidates for War Service Scholarships will be required to have completed one year (instead of the customary two years) of College or University work before applying. It is expected that War Service Scholarships will be offered each year for at least two, and possibly for three, years. For appointment to a War Service Scholarship, marriage will not be a bar. For War Service Scholarships, the regulations, except as regards age, marriage, and the amount of college training required, will be the same as for regular appointments.

### 34. 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.

### 35. 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.

# 36. 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 complete minor or major in the department.

One-half of this award is paid in the fall and the other half in the spring semester.

### 37. 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.

#### 38. 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 majors 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.

### 39. The Reuban C. Thompson Scholarship in Philosophy Established 1948

In recognition of the exceptional services rendered by Doctor Reuban 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 complete a minor or major in the Department of 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.

#### 40. 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.

# 41. 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, of Engineering, of the School of Education and the Director of the Mackay School of Mines.

Lecturers	University Year
DR. ROBERT A MILLIAN	1924-1925
DR. EDWARD T DEVINE	1925-1920
UPTON CLOSE ( Logof Washington Hall)	1920-1941
DR WILL DUDLARM	1941-1940
COUNT I THE MOTOR STATE	1040. 1040
UR EDANTE MODERN Mallernor	1949-1990
DR. JAMES H. COUSINS	1930-1931
DR. ROBERT A. MILLIKAN	1938-1939
MISS MARY A. DINGMAN	1940-1941
DR. WILL DURANT	1945-1946
Mr. WILL DURANT.	1946-1947
MRS, RUTH BRYAN OWEN ROHDE	1947-1948
Mr. John Scott	

# 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 weekend trips in connection with school courses. It also provides for

<sup>\*</sup>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 1941-1946.

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.

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

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 any one contemplating a bequest for charitable purposes to ascertain the requirements of the law in the State in which he resides, and to take 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 Treatment 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 furnish-

ing 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—establishment of a trust fund of \$20,000, the interest on which is to be used as 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 YWCA 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.

# The College of Arts and Science

#### Аім

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 Arts¹ 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. These units are to be distributed as follows:

- 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<sup>2</sup> shall be required of all students.
- III. A minimum of sixteen units<sup>3</sup> in each of the three groups named below shall be required of freshmen and sophomores:
  - Group 1. 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.

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.

<sup>&</sup>lt;sup>1</sup>Students who have majored in mathematics or science may on application to the Dean be granted the degree of Bachelor of Science.

<sup>2</sup>Subject to provisions stated under English Language and Literature, see Index.

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.

Group 2. History, political science, economics, sociology, philosophy, psychology, and for normal school graduates, education.

Each unit of high school history or social science, except commercial geography or commercial law, may be used to decrease the requirement in this group by four units, provided such decrease shall not exceed eight units.

Group 3. Mathematics, physics, chemistry, botany, zoology, geology and astronomy.

Each unit of high school science except general science and each year of high school mathematics, except first year algebra and plane geometry may be used to decrease the requirements of this group by four units.

IV. At least one major and one minor as described under Junior and Senior Requirements.

The specific group requirements under III, above, have been made not only to insure for each student an acquaintance with the different fields of knowledge but to form what is believed to be a sounder basis for a somewhat greater specialization during the junior and senior years. For this reason, these requirements should be completed during the freshman and sophomore years.

Freshm	aan Year
First Samueten II-ita	Second Semester Units
Military and Physical Education ½ to 1½ English 101 3	Military and Physical         Education       ½ to 1½         English 102       3
Foreign language	Foreign language Social science Natural science or mathematics Elective
151	15}
Sophomo	ore Year Second Semester Units
First Semester Units Military and Physical Education ½ to 1½	Military and Physical Education
Foreign language	Foreign language  Social science
	151

15½

Courses open to freshmen and sophomores which may be used to fulfill the above requirements in the social science and natural science groups are listed below. In general, odd numbers are used for first-semester and even numbers for second-semester courses:

GROUP 2—Social Science— G Economics 107, 110 History 101-102, 105-106 Philosophy 101, 107, 108 Political Science 101-102, 105-106 Psychology 121 Geography 101

GROUP 3—Natural Science or

Mathematics—

Botany 103
Chemistry 101-102, 122, 124, 242

Mathematics 101, 102, 110
Physics 101-102, 107, 151-152.

153-154
Zoology 101, 103, 346
Geology 101, 102
Geography 103, 109

Subjects requiring a prerequisite or not open to freshmen:

Business Adm. 241, 243, 244, 247 Economies 201-202 Philosophy 221-222 Psychology 201, 205, 221, 231, 241 Sociology 201 Botany 203, 222, 231 Chemistry 231, 232 Geology 211, 212, 214 Mathematics 140, 151-152, 210, 220, 231-232 Physics 203-204, 205-206 Zoology 209, 211, 322

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 head 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.<sup>1</sup>

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.

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.

#### JUNIOR AND SENIOR REQUIREMENTS

The function of the College of Arts and Science is three-fold: to provide for a broad cultural education, to prepare secondary school teachers and to prepare specialists. To accomplish these purposes, candidates for the baccalaureate degree must select courses totaling not less than forty hours' work in courses numbered above 300. These courses must be selected from a group of departments so as to include at least a major and a minor.

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

For a major not more than 27 credits may be required within a department of which at least 12 credits must be in courses numbered 300 or above

For a minor not more than 18 credits may be required within a department of which in arts at least 6 credits and in science at least 4 credits must be in courses numbered above 300.

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

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

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

The remaining units necessary to make a total of 126 may be freely elected from any department, or, subject to the limit of twenty units named above, from the other colleges of the University.

#### REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN CHEMISTRY 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. electives, therefore, are subject to the approval of the chairman of the department, and should be chosen in consultation with

him.					
	Fr	eshma1	n Year		
	Un			Un	its Chem.
First Semester	Chem.1	Chem. Tech.	Second Semester	Chem.1	Tech.
Chemistry 101	4	4	Chemistry 102, 122		5
English 101	3	$\bar{3}$	English 102 <sup>3</sup>		3
Mathematics 151	5	5	Mathematics 152		5
Military 101	1	1	Military 102		1
Social Science	3	-	Social Science	9	•
Genl. Engineering 105.		2	Mechanical Arts 103		2
imgineering 100.			mechanical Arts 103.		
	16	15		16	16
	Sc	phomo	re Year		
First Semester	U	nits	Second Semester	Un	ita
Chemistry 231	3	3	Chemistry 232		3
Mathematics 231	3	3	Mathematics 232		3
Physics 203	4	4	Physics 204		4
Physics 205	1	1	Physics 206		1
Economics 201 or		-	Economics 202 or	4	_
Business Adm. 241	3			9	
Business Adm. 241		 3	Psychology 201	э	3
Military 201	1	1	Psychology 201		1
Electives	1	_	Military 202	1	1
			Electives	1	1
	16	15		16	16
		Junior	Year		
First Semester	U	nits	Second Semester	77.	nits
Chemistry 341	4	4	Chemistry 342		4
German 101	5	5	German 102	<del>-</del>	5
Chemistry 333	3		Chemistry 312	9	3
Chemistry 487	1	••	Chemistry 488	0	_
Mathematics 341		3	Business Adm. 366	2	3
E. E. 323		9	Chamistan 200		2
Electives	31	3	Chemistry 362		2
			Electives	$3\frac{1}{2}$	
	16	17	or of Science in Chemistr	16	17

Subject to provisions stated under English Language and Literature, see Index.

	Senior	r Year		
First Semester	Units	Second Semester	Units	
Chemistry 451	4 4	Chemistry 452	4	4
German 109	3 3	German 110		3
Chemistry 487	1 1	Chemistry 488		1
Political Science 301	1 1	Political Science 302		1
Chemistry 497	2	Chemistry 498	2	
Chemistry 461	3	M. E. 364		3
м. Е. 353	3	C. E. 372		3
Chemistry 415	3	Chemistry 482		_
Elective	$2\frac{1}{2}$ $1\frac{1}{2}$	Elective		11

In addition to the above course of study, students will be required to fulfill the regular University requirements in physical education.

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THE COURSE IN JOURNALISM

LEADING TO THE DEGREE BACHELOR OF ARTS IN JOURNALISM.

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

Upon completion of The Course in Journalism, a student receives 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 aesthetics, as well as in journalism.

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

1. Twenty-seven credit hours in journalism, including journalism 21-22, news gathering and writing (6 credits); journalism 51-52, news editing (4 credits); journalism 53, the evolution of the newspaper as a social institution (3 credits); journalism 72, the law of the press (1 credit); and journalism 81-82, newspaper internship (4 credits).

1. Twenty-seven credit hours in journalism, including journalism 101-102, interpreting the day's news (6 credits); journalism 221-222, news gathering and writing (6 credits); journalism 351-352, news editing (4 credits); journalism 353, the evolution of the newspaper as a social institution (3 credits); journalism 372, the law of the press (1 credit); journalism 379, the newspaper and society (2 credits); and journalism 481-482, newspaper partnership (2 credits).

2. Twelve credit hours in English literature.

3. Twenty-five credit hours in the social sciences (history, political science, economics, business, sociology, psychology, geography. and philosophy), selected so that they represent at least five of these subjects.

4. Five credit hours in the aesthetics.

5. The freshman and sophomore requirements of the College of Arts and Science.

6. Subjects required of all candidates for graduation from the

University of Nevada.

In their sophomore, junior, and senior years students specializing in journalism are advised to include Journalism 231, 232, 361, 362, 491, 492, in their schedules whenever possible in order to build up a background of the news of each year.

To complete the major 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 freshman and sophomore arts and science requirement in the social sciences may be counted toward this group requirement in The Course in Journalism.

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

In each group, the following courses will be found to best furnish the student with a comprehensive background. Those starred are especially valuable:

Journalism—231\*-232\*, 354\*, 356\*-357\*, 361\*-362\*, 365-366, 367, 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\*, 362, 371\*, 375, 381\*, 441\*.

Sociology-102\*, 201\*, 350, 370\*, 371\*, 379\*, 380\*, 381, 383.

The Aesthetics:

Art-101-102, 105, 355\*.

English--221-222, 321-322, 421-422,

Music-203, 204, 303, 304.

Philosophy-455.

In general, the course for the four years will follow this outline, in which certain advanced journalism courses not indicated are represented as electives.

	Units 2-3 3 5-5 4-7	n Year  Second Semester  Journalism 102  English 102  Group 1 elective (if needed).  Groups 2 and 3 electives  Military and physical  education  Electives	. 3 . 3–5 . 4–7 . ½–1½
education	½-1½ 	education	<u>1</u> -1

So	phomo	re Year	
First Semester Journalism 221 Journalism 231 Group 1 elective (if desired) Groups 2 and 3 electives (as required) Elective or English literature Electives	1-2 3 7-8 2-3 	Journalism 222	3 -2 3 -8 -3
	16 .	_	
First Semester Journalism English literature Social sciences Political Science 301 Electives	2-3 5 1	Second Semester Unit Journalism 5- English literature 2- Social sciences	-10 3 5 1
First Semester Journalism 481 Journalism	5-10 2-3 4	Second Semester Unit	2 10 3 4 -

Specific journalism courses required for the completion of The Course in Journalism or the major in journalism 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 tion to the required journalism courses, Journalism 354 Advanced Reporting, Journalism 367—Editorial Writing, Journalism 367—Editorial Writing, 375 nalism 368—The Special Feature Article, Journalism Nauve Pictorial Journalism, and Journalism 365—Community Newspaper Management.

Students interested chiefly in community newspaper work will wish to elect, in addition to the required courses, Journalism 354. 354—Advanced Reporting, Journalism 356-357—Advertising and Advertisement Copy Writing, Journalism 365-366—Community Newspaper Management, Journalism 367—Editorial Writing, Journalism 368—The Special Feature Article, and Journalism 375. Programme 1975. Programme 1975 375—Pictorial Journalism. 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—Advanced Reporting, Journalism 356-357—Advertising and Advertisement Copy Writing, Journalism 367-Editorial Writing, Journalism 368-The Special Feature Article, and Journalism 386-Journalism on the Air. 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-Advertising and Advertisement Copy Writing, Journalism 365-366—Community Newspaper Management, Journal-367-Editorial Writing, Journalism 368-The Special Feature Article, and Journalism 386-Journalism on the Air. Important courses outside the Department of Journalism include Business 368-Marketing, Business 371-Merchandising, Business 372-The Economics of Advertising, Art 453-Commercial Art, Psychology 361-Social Psychology, and Psychology 381-The Psychology of Advertising.

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.

Many students are not sure of the field of journalism into which they wish to go. They are advised to elect, in addition to required work in journalism, the basic courses in each field of journalism.

In addition to the journalism laboratory facilities on the campus, students in journalism at the University of Nevada enjoy the use of the offices and plants of the Reno newspapers, the national press association bureaus, two radio stations, and com-

mercial printing and engraving plants in the city.

Members of the staffs of the Reno Evening Gazette, the Nevada State Journal, the Reno bureaus of the United Press and the Associated Press, The Carson City Nevada Appeal, the Thomas C. Wilson Advertising Agency, the States Advertising Agency, the Nevada Engraving Company, Radio Station KOH, Radio Station KWRN, the Reno Printing Company, A. Carlisle and Company of Nevada, and the Silver State Press generously cooperate with the Courses in Journalism, not only in making their facilities available but in the instruction itself.

Subjects in journalism, credit hours, semesters offered, requirements for the major and minor, and the faculty in journalism are listed under the Department of Journalism.

### PRELEGAL COURSE

Students who intend to study law will find it advantageous to plan their college work in such a way as to permit the inclusion of essential prelegal subjects and to satisfy University requirements for the B.A. degree.

The requirements of the leading law schools usually embrace: (1) social sciences, history, political science, economics, business and sociology; (2) foundation courses in English, including debate and public speaking; (3) logic; (4) psychology; and (5) Latin, French, or German.

For advice relative to the organization of his work, the student is referred to Professors Inwood and Hicks, who are designated

advisers of the 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. Students contemplating studying medicine should communicate early in their undergraduate course with the Dean of the particular medical college they may wish to enter in order to learn the exact entrance requirements at the time they expect to enter. Practically all medical colleges prescribe the same minimum of subject matter which includes general zoology, vertebrate anatomy, embryology, general inorganic chemistry, qualitative analysis, organic chemistry istry, general physics, and a reading knowledge of French or 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. degree, the following arrangement of the course of study has proved a desirable one:

desirable one:	Freshma	n Year	<b></b>
First Semester English 101 Chemistry 101 Botany 103 Military and Physical Education Mathematics 110 Electives	Units 3 4 3 3 2-1½ 3		5 

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.

in the second semester.			
	Sophomor	re Year	
First Semester	Units	Second Semester	Units
German 101	5	German 102	9
Chemistry 231	3	Chemistry 232	3
Zoology 209	5	Military and Physical	
Military and Physical		Education	1½
Education	11	Electives	·····
Electives		•	
	$15\frac{1}{2}$		$15\frac{1}{2}$
	Junior	· Year	
First Semester	Units	Second Semester	Units
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. Schools of dentistry require only two years of college training. However, a two-year course at this University could not include all of the required courses, and could not make possible the obtaining of a degree from this university.

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 uniformly required and strongly advised courses for admission to such training schools, as well as certain electives and courses required for graduation. Electives must satisfy the Arts and Science freshman and sophomore graduation requirements.

	Freshme	an Year	
First Semester English 101 Chemistry 101 Botany 103 Physical Education 101 Elective	Units 3 4 3 1	Second Semester English 102	3 4 2 1
	$15\frac{1}{2}$		2.72
First Semester Chemistry 231 Zoology 211 Psychology 201 Physical Education 201 Elective	4 3	Second Semester Chemistry 242 Zoology 322* Botany 370 Sociology 102 Physical Education 202 Elective	3 3
	15½	•	107
First Semester Bacteriology 351 Physics 151 Political Science 301 Elective (300 or above)	Junior	Second Semester Zoology 368* Physics 152 Zoology 346 Political Science 302 Elective (300 or above)	5 °

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\*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 must 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	n Year	
First Semester Botany 103 English 101 Chemistry 101 History 101 Physical Education 101 Elective	3 4 3	Second Semester Zoology 103 English 102 Chemistry 102-242 Physical Education 102 Elective	3 5 1
	Sophomo	re Vean	102
First Semester Zoology 211 Foreign Language Sociology 201 Psychology 201 Physical Education 201	Units 4 5 3	Second Semester Foreign Language	3 ½
	-	-	102
First Semester Bacteriology 351 English or Foreign Languag Elective (Courses 300 or above) Political Science 301	ge 3		ge 3
	10		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 major in zoology or a minor in botany.

	Freshman Year	1st Sem.	2d Sen
Chemistry 101, 102	General Inorganic Chemistry		2
	Composition and Rhetoric		3
	General Botany		
	General Zoology		4
Mathematics 101 or 110	Algebra and Trigonometry	. 2	3
	lucation		1
Electives	ucation	2	2
Diccires			_
		$15\frac{1}{2}$	15
	<u> </u>	1st	2d
<b></b>	Sophomore Year	Sem.	Sen
Foreign Language	First Year	5	5
Zoology 209	Comparative Anatomy	5	
Zoology 333	Fish and Reptiles		3
Botany 222	Taxonomy		4
Chemistry 242	Introductory Organic		3
Military and Physical Ed	ucation	1½	1 1
Electives		4	••
		151	16½
		1st	2d
_	Junior Year	Sem.	Sem
Zoology 259	General Entomology	3	3
Zoology 337	Mammals	•	3
Botany 317	Agrostology		9
Botany 491	gracial problems in Seed		
	identification	3	••
Botany 492	Special problems in Wildlife		
	food plants		3
Geology 101	Physical geology	3	••
Political Science 201 202	Constitutions of the U. D. and		_
	Moredo	1	1
Electives	Nevaua	6	6.
		16	16

	Senior Year	1st Sem.	2d Sen
Zoology	335. Birds	ა	
Zoology	491 Special problems in bird fari management	m 3	
Zoology	492 Special problems in fish culti 350 Genetics		2
Rotany	475-476 Ecology	4	4
Elective	8		
		16	16

Suggested electives are: Animal Husbandry 358; Botany 355; Economics 201, 202; English 111, 112, 131, 132; Psychology 201.

# TEACHERS' DIPLOMAS

For the requirements for a teacher's diploma, see School of Education, Index.

# 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 require 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 following suggested undergraduate curriculum meets these requirements:

Freshma	n Year
First Semester         Units           Chemistry 101         4           English 101         3           Foreign Languages         5           Military and Physical Educ½-1½           Electives	Second Semester Units Chemistry 102, 242. 5 English 102. 3 Foreign Languages. 5 Military and Physical Educ½-1½ Electives.
15½	15 <del>]</del>
Sophomo	ore Year
First Semester         Units           Foreign Languages         3           Economics 201         3           Psychology 201         3           Sociology 201         3           Military and Physical Educ         ½-1½           Electives	

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Junior	Year

First Semester Psychology 361 Political Science 101 Sociology 379 Sociology 381 (or 383) Electives	3 2 2*	Second Semester Psychology 231 Political Science 102 Sociology 350 Sociology 384 (or 386) Mathematics or Science Electives	2 2 2 2 2* 3
	Scnior	Year	
First Semester Psychology 441 Political Science 431 Political Science 301 Sociology 3S3 (or 3S1) Sociology 371 Electives	2 1 2*	Psychology 401	2 2 2* 3

The following electives are recommended: Econ. 364, History 101-102, English 111-112, Philosophy 107-108, 222, Math. 220, Home Ec. 250, Psychology 371-411.

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This program provides a Major in Sociology and a Minor in Psychology; this is preferred by many graduate schools of social

work and is acceptable to all.

It is assumed here that no part of the mathematics, science or foreign language requirements has been met before entering the University. Those students who have met some part or all of these requirements will have a correspondingly larger number of electives.

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

Fresh	man Year
First Semester   Unit:   Economics 107   2     English 101   3     Foreign Language   5     Mathematics or Science   4-5     Military and Physical Educ   11	English 102
15}	<u> </u>

<sup>\*</sup>Sociology 381 and 384 offered in odd numbered years. Sociology 383 and

	Sophomore	e Year	**
First Semester Economics 201 Business Administration Business Administration Foreign Language Mathematics or Science Military and Physical Economics	Units 3 241 3 243 3 3 2-3	Second Semester Economics 202	244 3 3 5-6
	Junior	Year	
First Semester Business Administration Economics 361 Mathematics or Science Political Science 301 Electives	Units 355 3 3 3	Second Semester Business Administration Business Administration Political Science 302 Electives	368 1
	Senior	r Year	
First Semester Economics 373 Business Administration Business Administration Electives	n 365 3 n 247 3	Second Semester Business Administration Electives	Units n 374 3 13

Electives shall include a minimum of twelve hours selected from any other courses in economics or business administration. This selection should accord with the individual needs of the student. A minor must be completed in accordance with the requirements of the College of Arts and Science. For students who expect to enter a business career, a minor in mathematics or psychology is recommended; for those expecting to teach commercial subjects a minor in education is recommended; these latter students should elect Business Administration 351 and Business Administration 353 to be eligible for certification.

The program above is based upon the assumption that no part of the Mathematics-Science or Foreign Language requirements has already been met. Those students who have already met a part or all of these requirements will have a correspondingly larger number of electives. All requirements of the College of Arts and Science must be met.

# SCHOOL OF EDUCATION

#### Аім

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 teachertraining 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 educa-

tion.

For students who are not candidates for the vocational certificate or for the major in commercial education, these 18 hours consist of the following courses: Psychology 221, and Education 190, preferably in the sophomore year; Education 310, and two approved hours of methods in high school subjects (courses listed under secondary education and numbered 330-349) preferably in the junior year; Education 471, four hours of 420, and 482, all in the senior year. One semester of practice teaching in the elementary school may be substituted for two hours of Education 420.

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.

Major in Commercial Education. Students desiring to qualify as teachers of commercial subjects in high school should elect the major in commercial education as listed under the courses of instruction of the Department of Economics, Business, and Sociology, and should complete the following courses: Psychology 221, Education 190, 310, 339, 340, four hours of 420, and 471.

# 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 all 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.

### 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:

	Freshma	n Year	
First Semester Education 111 English 101 Physical Education (Wome Physical Education (Men) Military (Men) Education Electives Other Electives	2 3 en) 1 ½ 1	Education 134 English 102 Physical Education (W Physical Education (M Military (Men) Education Electives Other Electives	3 7omen) 1 (en) 1 1 5-6
	16		16

Practice Teaching 5 Education 190 2 Physical Education 5 Practice Teaching 6 Education 186 6 Physical Education 186 6	Nopitotti	
Political Science 301	tion 190	Second Semester         Units           Practice Teaching         5           Education 186         2           Physical Education         ½           Military (Men)         1           Political Science 302         1           Education Electives         1-2           Other Electives         -
16	16	16

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# III. BASED ON ONE YEAR OF STUDY

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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 course for the Normal School Diploma, as above, but must take also education 190 and political science 301-302.

#### THE KINDERGARTEN-PRIMARY CERTIFICATE

This certificate will be issued to any applicant who holds a B.A. or a B.S. degree from the University and who has completed the prescribed professional work in education and in related subjects as follows:

Education: A total of 30 hours including Education 117, 134, 141, 190, and ten hours of 120, five hours of which will be in kindergarten teaching and five in a primary grade; the remaining ten hours may be selected from other courses listed under Kindergarten-Primary Education.

Music: 101-102 or equivalent to prove ability to sing songs of kindergarten-primary level. The applicant must also pass tests to demonstrate ability to play on the piano music of kindergarten-

primary difficulty.

Physical education for women: 161, 162, 261, and 262.

Graduates of the University who complete the above courses will also be entitled to the Normal School Diploma, described above

#### 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:

Blythe Bulmer, B.A., English.
Gladys Cafferata, B.A., English.
Kathleen Griffin, B.A., Commercial.
Hattie Mae Kilpatric, B.A., Commercial.
Mildred Klaus, B.A., Commercial.
Nevada Pedroli, B.A., Spanish.
L. C. Schank, B.S., Agriculture.
Beulah Singleton, B.A., History.
Anna Maud Stern, B.A., Commercial.
Velva Truelove, B.A., Commercial.

For Elementary Certificate:

Harriet Abelman, B.A., Kindergarten, Joseph Bashista, B.S., seventh grade. Winnie Black, B.S., second grade. Helen Bledowski, B.S., eighth grade. Cherril Brown, B.A., eighth grade. E'Lois Campbell, B.A., eighth grade. Browning Churn, eighth grade. Kathryn Clark, fourth grade. Howard Cunningham, B.A., seventh grade. Cecelia Daley, third grade. Frances Dunn, B.A., seventh grade. Helen M. Dunn, B.A., seventh grade. Juanito Elcano, B.A., fifth grade. Marie Frazier, B.A., second grade. Inez Gillies, fifth grade. Helen Hanley, fourth grade. Mamie Hildebrand, sixth grade. Virginia Kimerling, B.E., first grade. Maris Maule, B.A., seventh grade. Evelyn McClurkin, fifth grade. Isabelle Moe, fifth grade. Robert Paille, B.A., sixth grade. Margaret Patrick, B.S., fifth grade. Edith Peddicord, fifth grade. Yvonne Rosasco, B.A., seventh grade. Alyce Savage, B.A., fifth grade. Doris Shaver, B.A., sixth grade. Madeline Shoemaker, sixth grade. Emma Smith, fourth grade. Lucille E. Smith, first grade Olivia Treanor, fifth grade. Betty Vaughn, B.A., first grade. Baol J. Ward, M.A., eighth grade. Vera Warren, B.S., eighth grade. Dorothy Watson, third 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.

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# 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.

#### Аім

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

## EQUIPMENT

For 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

#Art 101 F Mining 101 In Community 101	Descriptive Geometryreehand Drawing	2  2 1	3 2 5 
Military 101 B	asic Courseevelopmental Exercises	T	
		$17\frac{1}{2}$	
Freshman	Year—Second Semester		3
English 102Co	omposition and Rhetoric	••	2
Chemistry 100	otolo		1
Unemistry 194	nolitative	-	5
Mathematics 152 M	athematical Analysis	••	••
M. E. 106.	· · · · · · · · · · · · · · · · · · ·		
0	Descriptive Geometry		3
Geology 110Er			
Allitones 400	ngineering Geology nsic Courseevelopmental Exercises		- :
Total Total Total		18½	-
£	Summer Work Four	Wee	ks

\*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.

Sophon	nore Year—First Semester	AB.	LEC.
Intliamatics 241	Differential Calculus		3
dyraica 202	Engineering Physics		4
Lastowy 911	Determinative Mineralogy	_	
homistry 231	Quantitative Chemistry	2	1
memistry 201	Historical Geology	••	3
leology 102	Basic Course		1
dilitary 201	Advanced Exercises	1/2	
Physical Education 201	Auvanced Exercises		
		10	$6\frac{1}{2}$
Sonhou	nore Year—Second Semester		
	Integral Calculus	. <b></b>	3
Mathematics 242	General Physics for Engineers		4
Physics 204	Engineering Metallurgy		<b>2</b>
Metanurgy 204	Blowpipe Analysis	. 2	
Ge010gy 212	Descriptive Mineralogy		2
Ge010gy 214	Basic Course		1
Military 202	Advanced Exercises		
Chamistre 929	Quantitative Analytical Chemistry	$\frac{1}{2}$	1
Chemistry 252	Quantitative Analytical Chemistry	· -	
			173
1110	nior Year-First Semester	LAB.	LEC
			3
	Excavation		1
Matallingy 341	Assoring	ບ	
Metandist off			3
Mathematics 341	Analytic Mechanics		
Mathematics 341 Civil Engineering 241	Analytic MechanicsPlane Surveying	1	2
Mathematics 341 Civil Engineering 241 Geology 351	Analytic Mechanics	1	$\begin{matrix} 2 \\ 1 \end{matrix}$
Mathematics 341 Civil Engineering 241 Geology 351	Analytic MechanicsPlane Surveying	1	3 2 1 3
Mathematics 341 Civil Engineering 241 Geology 351	Analytic Mechanics	1	$\begin{matrix} 2 \\ 1 \end{matrix}$
Mathematics 341 Civil Engineering 241 Geology 351 Elective	Analytic Mechanics	1	$\begin{array}{c}2\\1\\3\end{array}$
Mathematics 341	Analytic Mechanics  Plane Surveying  Petrology  ior Year—Second Semester	1	1 3 18
Mathematics 341	Analytic Mechanics  Plane Surveying  Petrology  ior Year—Second Semester  Mine Plant	1	18 18
Mathematics 341	Analytic Mechanics  Plane Surveying  Petrology  ior Year—Second Semester  Mine Plant  Ore Dressing	1	18 3
Mathematics 341	Analytic Mechanics  Plane Surveying  Petrology  Pior Year—Second Semester  Mine Plant  Ore Dressing  Ore Dressing	1	18
Mathematics 341	Analytic Mechanics  Plane Surveying  Petrology  Pior Year—Second Semester  Mine Plant  Ore Dressing  Ore Dressing  Economics Geology Nonmetallic	1	18
Mathematics 341	Analytic Mechanics  Plane Surveying  Petrology  Nor Year—Second Semester  Mine Plant  Ore Dressing  Ore Dressing  Economics Geology Nonmetallic.  Plane Surveying	1	18
Mathematics 341	Analytic Mechanics  Plane Surveying  Petrology  Nor Year—Second Semester  Mine Plant  Ore Dressing  Ore Dressing  Economics Geology Nonmetallic  Plane Surveying	1	18
Mathematics 341	Analytic Mechanics  Plane Surveying  Petrology  Nor Year—Second Semester  Mine Plant  Ore Dressing  Ore Dressing  Economics Geology Nonmetallic.  Plane Surveying	1	18
Mathematics 341	Analytic Mechanics  Plane Surveying  Petrology  Nor Year—Second Semester  Mine Plant  Ore Dressing  Dre Dressing  Economics Geology Nonmetallic  Plane Surveying  Petrography (Metallography)	1	18
Mathematics 341	Analytic Mechanics  Plane Surveying  Petrology  Nor Year—Second Semester  Mine Plant  Ore Dressing  Cre Dressing  Economics Geology Nonmetallic  Plane Surveying  Petrography (Metallography)  Penior Year—First Semester	1 1 2	18 3 18 18 18 B. L
Mathematics 341	Analytic Mechanics  Plane Surveying  Petrology  Nor Year—Second Semester  Mine Plant  Ore Dressing  Cre Dressing  Economics Geology Nonmetallic  Plane Surveying  Petrography (Metallography)  Penior Year—First Semester	1 1 2	18 3 18 18 18 B. L
Mathematics 341	Analytic Mechanics  Plane Surveying  Petrology  Petrology  Nor Year—Second Semester  Mine Plant  Ore Dressing  Economics Geology Nonmetallic  Plane Surveying  Petrography (Metallography)  Petrography (Metallography)  Penior Year—First Semester  Economic Geology of Metals	1 1 2 2	18 3 18 18 18 B. L
Mathematics 341	Analytic Mechanics  Plane Surveying  Petrology  Dior Year—Second Semester  Mine Plant  Ore Dressing  Economics Geology Nonmetallic  Plane Surveying  Petrography (Metallography)  Penior Year—First Semester  Economic Geology of Metals  Mining Methods  Hydro-Metallurgy		18 3 18 18 18 B. L
Mathematics 341	Analytic Mechanics  Plane Surveying  Petrology  Dior Year—Second Semester  Mine Plant  Ore Dressing  Economics Geology Nonmetallic  Plane Surveying  Petrography (Metallography)  Penior Year—First Semester  Economic Geology of Metals  Mining Methods  Hydro-Metallurgy		18 3 18 18 
Mathematics 341	Analytic Mechanics  Plane Surveying  Petrology  Nor Year—Second Semester  Mine Plant  Ore Dressing  Economics Geology Nonmetallic  Plane Surveying  Petrography (Metallography)  Petrography (Metallography)  Penior Year—First Semester  Economic Geology of Metals  Mining Methods  Hydro-Metallurgy  Pyro-Metallurgy, nonferrous	1 2	2 1 3 3 18 18 18 18 E. L
Mathematics 341	Analytic Mechanics  Plane Surveying  Petrology  Nore Dressing  Ore Dressing  Economics Geology Nonmetallic  Plane Surveying  Petrography (Metallography)  Petrography (Metallography)  Penior Year—First Semester  Economic Geology of Metals  Mining Methods  Hydro-Metallurgy  Pyro-Metallurgy, nonferrous  metals	1 1 1 2 2 2 2 LA	18 3 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
Mathematics 341	Analytic Mechanics  Plane Surveying  Petrology  Nor Year—Second Semester  Mine Plant  Ore Dressing  Economics Geology Nonmetallic  Plane Surveying  Petrography (Metallography)  Petrography (Metallography)  Penior Year—First Semester  Economic Geology of Metals  Mining Methods  Hydro-Metallurgy  Pyro-Metallurgy, nonferrous	1 1 1 2 2 2 2 LA	18 3 18 18 B. Li

	Senior Year-Second Semester	LAB.	LEC
Mining 472	Mine Administration		3
Mining 474	Mineral Industry Economics	· ·	3
Electrical Enginee	ring 375Electricity in Mining		3
Political Science	302Constitution of Nevada		1
Mining 480, Metal	llurgy 480, or Geology 479	. 2	
Civil Engineering	372Strength of Materials		3
Civil Engineering	374Metals Testing Laboratory	. 1	-
Elective			4
	•		
		2	20
	MACKAY SCHOOL OF MINES		
	METALLURGY COURSE		
	2700777477	LAB.	LEC.
English 101	Composition and Rhetoric		3
Chemistry 101	Metals		2
Mathematics 151	Mathematical Analysis		5
М. Е. 105	Engineering Drawing and		
	Descriptive Geometry	2	
Mining 101	Introduction to Mining		1
*Art 101	Freehand Drawing	1	••
Military 101	Basic Course	1	
Physical Education	n 101Developmental Exercises	$\frac{1}{2}$	••
244444	i Tolimini Developmentur ————		
	T. Composton	17	2
-	Freshman Year-Second Semester		3
English 102	Composition and Rhetoric	••	2
Chemistry 109	Matale	••	1
Chemistry 124	Onalitative	1	5
Mathematics 152	Mathematical Analysis	**;	U
М. Е. 106	Ungineering Drawing and		
	Descriptive Geometry	z	3
Geology 110	Engineering Ceology	••	_
Allifary 109	Dogie Course	-	
Physical Education	1 102Developmental Exercises	<b>İ</b>	••
		18	į
	Summer Work		
Mining (	Practical Metallurgical WorkFou	r We	eks
	Fractical Medical	AB.	LEC.
_	Cartana Vocas Harst Dellicolo	LD.	3
Mathematics 241	ratetiol Colcillis	•	4
Physics 203	Engineering Physics	2	
Geology 211	Determinative Mineralogy	2	1
			ī
Military 201	Quantitative Chemical		<u>.</u> .
		•	2
Elective	201Advanced Exercises		
		$17\frac{1}{2}$	

Mathematics 242	100	ay 0) 1100 aaa Gama 8.11		
Physics 204	Sophomor	e Year—Second Semester	AB.	LEC.
Physics 204	Mathematics 242	integral Calculus		3
Physics 206	Physics 204	General Physics for Engineers		4
Metallurgy 204   Engineering Metallurgy   2   2   2   2   3   3   2   2   3   4   3   3   4   3   3   3   3   3	Physics 206	Physical Measurements	1	••
Geology 212   Blowpipe Analysis   2   2   2   3   3   4   4   4   5   5   5   5   5   5   5	Metallurgy 204	Engineering Metallurgy		2
Geology 214	Geology 212	Blownine Analysis	2	••
Chemistry 232	Geology 214	Descriptive Mineralogy	••	2
Military 202	Chemistry 232	Quantitative Chemistry	2	1
Physical Education 202   Advanced Exercises   1	Military 202	Basic Course	••	1
Metallurgy 358	Physical Education 202	Advanced Exercises	$\frac{1}{2}$	
Metallurgy 358.   Ferrous Metallurgy   2   2   2   3   3   1   4   4   4   4   4   4   4   4   4		•		01
Metallurgy 358         Ferrous Metallurgy         2           Metallurgy 341         Fire Assaying         3         1           Methematics 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 366         Ore Dressing         2         1           Metallurgy 368         Ore Dressing         2         2         Geology 360         Economics Geology Nonmetallic         3         3         Civil Engineering 242         Plane Surveying         2         3         Political Science 302         Constitution of Nevada         1         1         1         1         3         Political Science 302         Constitution of Nevada         1         1         3         Political Science 302         Constitution of Nevada         1         1         3         1         1         3         1         3         1         1         3         1         3         1         1         3         1         1         3         1         1         3         1         2         <	Lunio	v Voor First Somostor	7	.83
Metallurgy 341.         Fire Assaying         3         1           Methematics 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         2           Metallurgy 368.         Ore Dressing         2         3           Geology 360.         Economics Geology Nonmetallic         3           Civil Engineering 242.         Plane Surveying         2         3           Political Science 302.         Constitution of Nevada         1         1           Elective         2         1         1         3           Metallurgy 451.         Physical Chemistry         1         3         1           Metallurgy 461.         Pyro-Metallurgy         3         3           Civil Engineering 361.         Hydraulics         3         3           Project in Metallurgy         2         1         3           Sen				9
Methematics 341				
Civil Engineering 241				_
Political Science 301				_
Senior Year—Second Semester   18				
Metallurgy 356				
Metallurgy 356	Elective			
Metallurgy 356         Metallography         2         1           Metallurgy 366         Ore Dressing         2           Metallurgy 368         Ore Dressing         2           Geology 360         Economics Geology Nonmetallic         3           Civil Engineering 242         Plane Surveying         2         3           Political Science 302         Constitution of Nevada         1         1           Elective         2         2     **Benior Year—First Semester  Chemistry 451         Physical Chemistry         1         3           Metallurgy 471         Hydro-Metallurgy         1         2           Metallurgy 461         Pyro-Metallurgy         3         3           Civil Engineering 361         Hydraulics         3         3           Project in Metallurgy         2         -           Elective         3         3           Senior Year—Second Semester         1         3           Chemistry 452         Physical Chemistry         1         3           Mining 474         Mineral Industry Economics         3         3           Civil Engineering 372         Strength of Materials         3         3           Civil Engineering 374         Metallurgy				16
Metallurgy 366         Ore Dressing         2           Metallurgy 368         Ore Dressing         2           Geology 360         Economics Geology Nonmetallic         3           Civil Engineering 242         Plane Surveying         2         3           Political Science 302         Constitution of Nevada         1         1           Elective         2         2         1           Senior Year—First Semester           Chemistry 451         Physical Chemistry         1         3           Metallurgy 471         Hydro-Metallurgy         1         2           Metallurgy 461         Pyro-Metallurgy         3         3           Civil Engineering 361         Hydraulics         3         3           Project in Metallurgy         2         1         3           Elective         3         3         3         3         3           Chemistry 452         Physical Chemistry         1         3         3           Mining 474         Mineral Industry Economics         3         3           Electrical Engineering 375         Electricity in Mining         3         3           Civil Engineering 374         Metalls Testing Laboratory         1         1 <td>Junior</td> <td>Year-Second Semester</td> <td></td> <td></td>	Junior	Year-Second Semester		
Metallurgy 366         Ore Dressing         2           Metallurgy 368         Ore Dressing         2           Geology 360         Economics Geology Nonmetallic         3           Civil Engineering 242         Plane Surveying         2         3           Political Science 302         Constitution of Nevada         1         1           Elective         2         2         1           Senior Year—First Semester           Chemistry 451         Physical Chemistry         1         3           Metallurgy 471         Hydro-Metallurgy         1         2           Metallurgy 461         Pyro-Metallurgy         3         3           Civil Engineering 361         Hydraulics         3         3           Project in Metallurgy         2         1         3           Elective         3         3         3         3         3           Chemistry 452         Physical Chemistry         1         3         3           Mining 474         Mineral Industry Economics         3         3           Electrical Engineering 375         Electricity in Mining         3         3           Civil Engineering 374         Metalls Testing Laboratory         1         1 <td>Metallurgy 356</td> <td>Metallography</td> <td>. 2</td> <td>1</td>	Metallurgy 356	Metallography	. 2	1
Metallurgy 368	Metallurgy 366	Ore Dressing		2
Elective	Metallurgy 368	Ore Dressing	2	
Elective	Geology 360	Economics Geology Nonmetallic		3
Elective	Civil Engineering 242	Plane Surveying	2	3
Elective	Political Science 302	Constitution of Navada	-	1
Elective	Elective			
Senior Year—Second Semester   1   3				
Senior Year—Second Semester   1   3				18
Elective	Senie	or Year—First Semester		
Elective	Chemistry 451	Physical Chemistry	. 1	
Elective	Metallurgy 471	Hvdro-Metallurgy	1	-
Elective	Metallurgy 461	Pvro-Matallurav		
Elective	Civil Engineering 361	Hydranlies		3
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  Note—The electives are not free electives but must be a relected as to	Project in Metallurgy	*******	9	
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  Note—The electives are not free electives but must be a released as to	Elective		<b></b>	3
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			-	10
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  Note—The electives are not free electives but must be a released as to	Senio	r Year-Second Someston		18
Electrical Engineering 375. Electricity in Mining	Chemistry 452	Physical Chemistry	-	9
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  Note—The electives are not free electives but must be a selected as to				
Civil Engineering 374. Metals Testing Laboratory. 1  Metallurgy 472. Electro-Metallurgy 2  Metallurgy 476. Problems and Seminar. 2  Project in Metallurgy 2  Note—The electives are not free electives but must be a selected as to	Electrical ingineering 31	) Electricity in Mississes		
Metallurgy 472 Electro-Metallurgy 2 Metallurgy 476 Problems and Seminar 2 Project in Metallurgy 2  Note—The electives are not free electives but must be a calcated as to	Civil Engineering 372	Strength of Motorica	<del></del>	
Metallurgy 476 Problems and Seminar 2 Project in Metallurgy 2  Note—The electives are not free electives but must be a calcated as to				ð
Metallurgy 476 Problems and Seminar 2 Project in Metallurgy 2  Note—The electives are not free electives but must be a calcated as to	Metallurgy 472	Floatro Matall	1	
Project in Metallurgy 2  Note—The electives are not free electives but must be a calcated as to	Metallurgy 476	Problems and S.		
Note—The electives are not free electives but must be a calcuted as to	Project in Metallurev	robiems and Seminar		2
Note—The electives are not free electives but must be as selected as to			2	
Note—The electives are not free electives but must be as selected as to				20
Two nontechnical electives may be taken in the senior year.	NOTE—The electives are	not free electives but		
be taken in the senior year.	Two nontechnical elections	ic course of training in metallurgical	lecte engi	neering.
		may be taken in the senior year.		
	ye for with			

# MACKAY SCHOOL OF MINES GEOLOGICAL ENGINEERING

(First two years—same as General Mining Course)

Junior	Year—First Semester	LAB	. LEC
Civil Engineering 241	lane Surveying	1	2
*Foreign Languages F	irst Year	_	5
Geology 351	Petrology	1	1
Geology 370 F	'ield Geology	1	-
Geology 382 S	tructural Geology	_	3
	lining Methods		3
	iming methods		
			17
Junior	Year—Second Semester		
	lane Surveying	2	3
Geology 259	etrography	$\bar{2}$	ĩ
			2
Geology 360	eologic Reportsconomic Geology of Nonmetals	••	$\bar{\tilde{3}}$
*Foreign Tourses	conomic Geology of Nonmetals		5
roreign LanguagesF	irst Year		
			18
•	Summer Course		
			6
Geology 410S	ummer Field Geology	••	Ü
Senior	Year—First Semester		
Political Science 301 C	onstitution of U. S		1
*Foreign Languages S	econd Year		3
*English 111 P	ublic Speaking		<b>2</b>
Geology 353	tratigraphic Paleontology	1	2
Geology 461 F	conomic Geology of Metals		3
Geology 470	eology Project	2	
Geology 480	eophysical Methods	1	2
	eophysical Monaca		
			17
Senior Y	Year—Second Semester		
Political Science 202 C	onstitution of Nevada		. 1
*Foreign Languages Se	econd Year		3
*(20010000 440 0	ambalagy		3
G6010gg 470 C.	oology Project	_	
			3
Geology 495	eminar	1	1
Electivo	eminat		2
	-		
		1	6

<sup>\*</sup>May be substituted for by permission.

#### SCHOOL OF MECHANICAL ENGINEERING

Freshmo	ın Year—First Semester	LAB.	LEC.
English 101	Composition and Rhetoric		3
Chemistry 101	General Inorganic Chemistry	<b>2</b>	2
Mathematics 151	Mathematical Analysis	••	5
M. E. 105	Engineering Drawing and		
	Descriptive Geometry	2	••
*Political Science 1011	American Government		3
or	or ·		_
*History 105	U. S. History		3
Military 101	Basic Course	. 1	••
Physical Education 101	Developmental Exercises	1/2	••
		1	181
Freshma	n Year—Second Semester		_
English 102	Composition and Rhetoric		3
	Metals		2
Chemistry 124	Qualitative	. 1	1 .
	Mathematical Analysis		5
	Engineering Drawing and		
	Descriptive Geometry	. 2	
*Political Science 1021	American Government		3
or	or		
*History 106	U. S. History		3
Military 102	Basic Course	. 1	
Physical Education 102	Developmental Exercises	. 1	
•	The transfer of the second sec		
			$18\frac{1}{2}$
Sophon	nore 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
English 111	Public Speaking		2
*Political Science 105	Comparative Government		2
or	or		
*History 101	European Civilization		3
Military 201	Basic Course		••
Physical Education 201	Advanced Exercises	. 1	
	The same control of the sa	2	
		18	or 19½

¹Completion of Political Science 101 and 102 will satify the Political Science 301 and 302 requirement for graduation.

\*Courses marked with an asterisk may be substituted for only when approved in writing by the advisor.

NOTE—Either Political Science 105 and 106 or History 105 and 106 must be completed.

	more Year—Second Semester		
Physics 204	General Physics for Engineers	LAE	
Physics 206	Physical Measurements		4
Mathematics 959	Physical Measurements	2	
Matallurery 900	Engineering Calculus		4
metanting 200	Engineering Materials and		
Maghania Lat ana	Processes	···	2
Mechanic Arts 226	Engineering Materials and	_	
#11-1441- 1 Ct 4	Processes Laboratory	1	
Tontical Science 106	Comparative Government		2
or	or		
*History 102	European Civilization	<b></b>	3
Military 202	Basic Course	1	
Physical Education 202	Advanced Exercises	½	
		161	or 17½
	ior Year—First Semester		_
Mathematics 341	Analytic Mechanics	··· ··	3
Electrical Engineering 35	1. Direct Current Machinery	·-	3
Electrical Engineering 35	3. Direct Current Machinery		
	Laboratory	2	
M. E. 351	Kinematics	2	1
M, E. 355	Thermodynamics		3
Mathematics 351	Differential Equations	<b>-</b>	2
Literature	To Be Chosen		2
	10 De Chosen		
	•	1	.8
Junio	r Year—Second Semester		_
Mathematics 242	Analytic Mechanics		2
Civil Engineering 376	Mechanics of Materials	1	3
Electrical II.			_
- Meetical Engineering 352	Alternating Current Machinery		3
Electrical Engineering 352	2. Alternating Current Machinery		3
Electrical Engineering 354	Alternating Current Machinery		3
Electrical Engineering 354	Laboratory	2	
Electrical Engineering 354 M. E. 356	Lalternating Current Machinery  Laboratory  Applied Thermodynamics	2	
Electrical Engineering 354	Laboratory	2	
M. E. 356 M. E. 364	Laboratory	2	
M. E. 356 M. E. 364	Laboratory	2	 3
M. E. 356. M. E. 364	Laboratory	2	 3  2
M. E. 356	Laboratory	. 2	 3 
M. E. 356. M. E. 364. Literature	A.Alternating Current Machinery Laboratory	2	 3  2
M. E. 356	A.Alternating Current Machinery Laboratory	2	3 2 3
M. E. 356. M. E. 364. Literature. Senic	A.Alternating Current Machinery Laboratory	2	3 2 2
M. E. 356. M. E. 364. Literature Senic M. E. 465. M. E. 457	A.Alternating Current Machinery Laboratory  Applied Thermodynamics  Mechanical Engineering Laboratory  To Be Chosen  Or Year—First Semester  Mechanical Engineering Laboratory  Machine Design	2 2 2 1	3 2 2 3
Electrical Engineering 354  M. E. 356  M. E. 364  Literature  Senic  M. E. 465  M. E. 457  M. E. 457	A.Alternating Current Machinery Laboratory  Applied Thermodynamics  Mechanical Engineering Laboratory  To Be Chosen  Or Year—First Semester  Mechanical Engineering Laboratory  Machine Design  Machine Design	2 2 2 18	3 2 2
Literature  M. E. 356 M. E. 364  Literature  Senic M. E. 465 M. E. 457 M. E. 471 Civil Engineering 267	A.Alternating Current Machinery Laboratory  Applied Thermodynamics  Mechanical Engineering Laboratory  To Be Chosen  Or Year—First Semester  Mechanical Engineering Laboratory  Machine Design  Heat-Power Engineering  Heat-Power Engineering  Heat-Power Engineering  Heat-Power Engineering  Heat-Power Engineering		3 2 2 3
Literature  M. E. 356 M. E. 364  Literature  Senic M. E. 465 M. E. 457 M. E. 471 Civil Engineering 367  Political Science 301	A.Alternating Current Machinery Laboratory  Applied Thermodynamics  Mechanical Engineering Laboratory  To Be Chosen  Or Year—First Semester  Mechanical Engineering Laboratory  Machine Design  Heat-Power Engineering Elementary Fluid Mechanics  Constitution of U. S.		3 - 2 3 3 3
Literature  M. E. 356 M. E. 364  Literature  Senic M. E. 465 M. E. 457 M. E. 471 Civil Engineering 267	A.Alternating Current Machinery Laboratory  Applied Thermodynamics  Mechanical Engineering Laboratory  To Be Chosen  Or Year—First Semester  Mechanical Engineering Laboratory  Machine Design  Heat-Power Engineering Elementary Fluid Mechanics  Constitution of U. S.	18 2 2 1 2 1	3 2 2 3 3 1
Literature  M. E. 356 M. E. 364  Literature  Senic M. E. 465 M. E. 457 M. E. 471 Civil Engineering 367 Political Science 301 Business Adm. 241	A.Alternating Current Machinery Laboratory Applied Thermodynamics Mechanical Engineering Laboratory To Be Chosen  Or Year—First Semester Mechanical Engineering Laboratory Machine Design Heat-Power Engineering Elementary Fluid Mechanics Constitution of U. S. Fundamentals of Business	18 2 11 2 1	3 2 2 2 3 3 1
Literature  M. E. 356 M. E. 364  Literature  Senic M. E. 465 M. E. 457 M. E. 471 Civil Engineering 367 Political Science 301 Business Adm. 241	A.Alternating Current Machinery Laboratory  Applied Thermodynamics  Mechanical Engineering Laboratory  To Be Chosen  Or Year—First Semester  Mechanical Engineering Laboratory  Machine Design  Heat-Power Engineering Elementary Fluid Mechanics  Constitution of U. S.	18 2 11 2 1	3 2 2 3 3 1
Electrical Engineering 354  M. E. 356. M. E. 364  Literature  Senic  M. E. 465.  M. E. 457. M. E. 471. Civil Engineering 367. Political Science 301. Business Adm. 241.	A.Alternating Current Machinery Laboratory  Applied Thermodynamics  Mechanical Engineering Laboratory  To Be Chosen  Or Year—First Semester  Mechanical Engineering Laboratory  Machine Design  Heat-Power Engineering Elementary Fluid Mechanics  Constitution of U. S.  Fundamentals of Business  Organization  Economics for Engineers	18 2 11 2 1	3 2 3 3 1 3 3

<sup>\*</sup>Courses marked with an asterisk may be substituted for only when approved in writing by the advisor.

Circle Engineering 241   Surveying   1   2	1,0			
M. E. 458	80	enior Year—Second Semester LA		
M. E. 472	150	Machine Design Problem	2	
M. E. 477		Hoot-Power Engineering		
Act   Act	· 73 400	INTERNAL CHIMINISTICA DESTRUCTION		_
1	Dalitical Science 302	Constitution of Nevaua	•-	1
SCHOOL OF ELECTRICAL ENGINEERING   Freshman Year—First Semester   LAB.   LEC.		La bound to be abagan Willi Hilliulal		e
School of Electrical Engineering   Lab.   Lectromistry   101   General Inorganic Chemistry   2   2   2   2   2   2   2   2   3   3	of advisor to tota	1 144	70	r o
SCHOOL OF ELECTRICAL ENGINEERING   Freshman Year—First Semester   LAB.   LEC.   3		_		
Freshman Year—First Semester	~	Transplat Transpering		
English 101   Composition and Rhetoric.   3   Chemistry 101.   General Inorganic Chemistry   2   5   Mathematics 151   Mathematical Analysis   Descriptive Geometry   2   Military 101   Basic Course   1   Physical Education 101   Developmental Exercises   1   Freshman Year—Second Semester   17½   Freshman Year—Second Semester   17½   Freshman Year—Second Semester   2   English 102   Composition and Rhetoric   3   Chemistry 102   Metals   2   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   1   Physics 203   General Physics for Engineers   2   Felective   Humanities   18½   Sophomore Year—First Semester   1   Physics 203   General Physics for Engineers   2   Mathematics 251   Calculus for Engineers   2   English 111   Public Speaking   1   2   Flysics 204   General Physics for Engineers   1   Physics 206   Physical Measurements   2   Mathematics 252   Calculus for Engineers   1   Physics 206   Physical Measurements   2   Mathematics 252   Calculus for Engineers   1   Physics 206   Physical Measurements   2   Mathematics 252   Calculus for Engineers   1   Physics 206   Physical Measurements   2   Mathematics 252   Calculus for Engineers   1   Physics 206   Physical Measurements   2   Metallurgy 206   Engineering Materials and   Processes Laboratory   1   Military 201   Basic Course, second year   1   Physical Education 202   Advanced Exercises   1   Physical Education 203   Advanced Exercises   1   Physical Education 204   Advanced Exercises   1   Physical Education 205   Advanced Exercises   1	SCHO	OL OF ELECTRICAL ENGINEERING		LEC.
Chemistry 101.   General Inorganic Chemistry   25	F	reshman Year—First Semester		
Mathematics 151         Mathematical Analysis           M. E. 105         Engineering Drawing and Descriptive Geometry         2           Military 101         Basic Course         1           Physical Education 101         Developmental Exercises         2           *Elective         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         2           Military 102         Basic Course         1         1           Physical Education 102         Developmental Exercises         2         1           Physical Education 102         Developmental Exercises         2         3           *Elective         Humanities         3         18½           Sophomore Year—First Semester           Physics 203         General Physics for Engineers         4           Physics 205         Physical Measurements         2           Civil Engineering 241         Surveying         <	English 101	Composition and Rhetoric	2	2
M. E. 105         Engineering Drawing and Descriptive Geometry         2           Military 101         Basic Course         1           Physical Education 101         Developmental Exercises         1           *Elective         17½           Freshman Year—Second Semester           English 102         Composition and Rhetoric         2           Chemistry 102         Metals         2           Chemistry 124         Qualitative         1         1           Mathematics 152         Mathematical Aualysis         5           M. E. 106         Engineering Drawing and         Descriptive Geometry         2           Military 102         Basic Course         1           Physical Education 102         Developmental Exercises         1           *Elective         Humanities         3           Sophomore Year—First Semester           Physics 203         General Physics for Engineers         1           Physics 205         Physical Measurements         2           Mathematics 251         Calculus for Engineers         1           Civil Engineering 241         Surveying         1           English 111         Public Speaking         2           Military 201         Basic Co	Chemistry 101	General Inorganic Chemistry	-	5
Descriptive Geometry	Mathematics 151	Mathematical Analysis		
Military 101	M. E. 105	Engineering Drawing and	2	
Physical Education 101		Descriptive Geometry	1	
#Elective	Military 101	Basic Course	1	
Freshman Year—Second Semester   3   3   3   3   3   3   3   3   3	Physical Education 1	101Developmentar Exercises		2
Freshman Year—Second Semester	Miective			71
Chemistry 102		Washington Roser J Comparison	1	1 2
Chemistry 102				3
Chemistry 124	English 102	Composition and Rhetorie		
Mathematics 152         Mathematical Aualysis         5           M. E. 106         Engineering Drawing and Descriptive Geometry         2           Military 102         Basic Course         1           Physical Education 102         Developmental Exercises         ½           *Elective         Humanities         3           *Elective         Humanities         4           Sophomore Year—First Semester           Physics 203         General Physics for Engineers         2           Physics 205         Physical Measurements         2           Mathematics 251         Calculus for Engineers         4           Civil Engineering 241         Surveying         1         2           English 111         Public Speaking         2         1           Military 201         Basic Course, second year         1         1           Physical Education 201         Advanced Exercises         ½         1           *Elective         Humanities         2         18½           Sophomore Year—Second Semester           Physics 206         Physical Measurements         2           Mathematics 252         Calculus for Engineers         2           Metallurgy 206         Engineering Mat	Chemistry 102	Metals	1	1
M. E. 106	Chemistry 124	Vallative		5
Descriptive Geometry				
Military 102	M. E. 100	Descriptive Coometry	. 2	
*Elective	Military 109	Pagia Course	. 1	
#Elective Humanities   18½	Dhysical Education	102 Developmental Exercises	ļ	
Sophomore Year—First Semester   Physics 203   General Physics for Engineers   4	*Elective	Humanities		3
Sophomore Year—First Semester  Physics 203				181
Physics 203		Sonhomore Vear-First Semester		102
Physics 205		<del>-</del>		4
Mathematics 251				
Civil Engineering 241         Surveying         1         2           English 111         Public Speaking         2           Military 201         Basic Course, second year         1           Physical Education 201         Advanced Exercises         1           *Elective         Humanities         1           Sophomore Year—Second Semester           Physics 204         General Physics for Engineers         2           Physics 206         Physical Measurements         2           Mathematics 252         Calculus for Engineers         2           Metallurgy 206         Engineering Materials and         2           Processes         Processes         4           Mechanic Arts 226         Engineering Materials and         4           Processes Laboratory         1         4           Military 201         Basic Course, second year         4           Physical Education 202         Advanced Exercises         1/2           *Elective         Humanities         1				4
English 111 Public Speaking Military 201 Basic Course, second year 1 Physical Education 201 Advanced Exercises 1 *Elective Humanities 18½  Sophomore Year—Second Semester Physics 204 General Physics for Engineers 2 Mathematics 252 Calculus for Engineers 2 Metallurgy 206 Engineering Materials and 2 Processes Mechanic Arts 226 Engineering Materials and 2 Processes Laboratory 1 Military 201 Basic Course, second year 2 Physical Education 202 Advanced Exercises 1 *Elective Humanities 17½				2
Military 201 Basic Course, second year.  Physical Education 201 Advanced Exercises  *Elective Humanities  Sophomore Year—Second Semester  Physics 204 General Physics for Engineers Physics 206 Physical Measurements 2 Mathematics 252 Calculus for Engineers Metallurgy 206 Engineering Materials and Processes  Mechanic Arts 226 Engineering Materials and Processes Laboratory 1 Military 201 Basic Course, second year Physical Education 202 Advanced Exercises  *Elective Humanities				2
Physical Education 201	Military 201	Basic Course, second year		1
*Elective Humanities	Physical Education	201 Advanced Exercises	1	
Sophomore Year—Second Semester	*Elective	Humanities		2
Sophomore Year—Second Semester				181
Physics 204 General Physics for Engineers Physics 206 Physical Measurements 2  Mathematics 252 Calculus for Engineers Metallurgy 206 Engineering Materials and Processes Mechanic Arts 226 Engineering Materials and Processes Laboratory 1  Military 201 Basic Course, second year Physical Education 202 Advanced Exercises 1  *Elective Humanities 17½		Sophomore Year—Second Semester		102
Physics 206. Physical Measurements 2 Mathematics 252. Calculus for Engineers. Metallurgy 206. Engineering Materials and Processes  Mechanic Arts 226. Engineering Materials and Processes Laboratory 1 Military 201 Basic Course, second year. Physical Education 202 Advanced Exercises 1 *Elective Humanities				4
Mathematics 252         Calculus for Engineers           Metallurgy 206         Engineering Materials and           Processes         Processes           Mechanic Arts 226         Engineering Materials and           Processes Laboratory         1           Military 201         Basic Course, second year           Physical Education 202         Advanced Exercises           *Elective         Humanities	Physics 206	Physical Measurements	2	
Metallurgy 206. Engineering Materials and Processes  Mechanic Arts 226. Engineering Materials and Processes Laboratory 1  Military 201 Basic Course, second year Physical Education 202 Advanced Exercises 1  *Elective Humanities	Mathematics 252	Calculus for Engineers		4
Processes	Metallurgy 206	Engineering Materials and		
Mechanic Arts 226	2 Sp.	Processes		. 2
Processes Laboratory 1 Military 201 Basic Course, second year Physical Education 202 Advanced Exercises ½ *Elective Humanities 17½	Mechanic Arts 226	3Engineering Materials and		
Military 201 Basic Course, second year Physical Education 202 Advanced Exercises *Elective Humanities 17½	All the	Processes Laboratory	1	
*Elective Humanities 17½	Military 201	Basic Course, second year	<b>.</b>	
*Elective Humanities 177½	Physical Education	on 202Advanced Evereises		ι,
17½	*Elective	Humanities		
			-	
	*Electives selec	eted under supervision of the		

#### COLLEGE OF ENGINEERING

COLLEGE OF ENGINEERING		
Junior Year-First Semester	LA	B. LE
Electrical Engineering 351. Direct Current Machinery		
Electrical Engineering 353. Direct Current Machinery Lab	2	
Electrical Engineering 355. Introduction to Electric Circuits		2
Mathematics 341 Mechanics		5
Business Adm. 241 Business Organization		5
Mathematics 351Differential Equations		2
*Electives		3
20001165		
		18
Junior Year-Second Semester		
Electrical Engineering 352Alternating Current Machinery		3
Electrical Engineering 354. Alternating Current Machinery		
Laboratory	2	
Electrical Engineering 356Alternating Current Circuits		2
Electrical Engineering 368. Introduction to Electronics	1	2
Civil Engineering 372Strength of Materials	_	$\overline{3}$
Mathematics 342 Mechanics		$\frac{\circ}{2}$
*Electives		3
		18
Senior Year-First Semester		
	1	1
Electrical Engineering 469 Industrial Electronics	-	_
Electrical Engineering 461Advanced Aleternating Current		3
Machinery	1	$\frac{3}{2}$
Mechanical Eng. 457. Machine Design		1
Political Science 301 Constitution of United States		3
*Electives		٠
Electronics Option		
Electrical Engineering 481Advanced Electronics	2	4
Accepted Engineering 481Advanced Electronics		
		18
Power Option		
Electrical Courts to the Advanced Alternating Current		
Laboratory	3	
Mechanical Eng. 353Fundamentals of Thermodynamics		3
24g. 000		18
		10
Senior Year-Second Semester		6
Electrical Engineering (co. Dioctrical Design	1	2
4dectricol Danis 100 Cominor		1
Political Science 200 Constitution of Nevitta		1
UVII Engineering 901 Undraulics		3
*Electives		2
Electronics Option		
Floring and	9	4
Mr. onorma VOC	4	$\frac{4}{2}$
Physics 472 Modern Physics		<u></u>
ALLVIELLE		18

<sup>\*</sup>Electives selected under supervision of advisor.

Power Option LAB	. I	EC.
Electrical Engineering 464. Advanced Alternating Current Laboratory		
15 J. T. Stranding 166 Congression and Distribution of		
		3
Mechanical Eng. 364Mechanical Laboratory		2
nicontained and	18	
	10	
School of Civil Engineering Freshman Year—First Semester		
Granitian and Rhetoric		3
English 101 Composition and Rhetoric	:	2
Chemistry 101		5
Mathematics 151 Mathematical Analysis Mathematical Analysis		
Mechanical Eng. 105Engineering Drawing and Descriptive Geometry	2	
Descriptive Geometry		2
Economics 107 Economic Geography	1	••
Military 101. Basic Course	1	••
Physical Education 101Developmental Exercises		
	17	7 1
Freshman Year-Second Semester		3
English 102Composition and Rhetoric	••	$\frac{3}{2}$
Chemistry 102 Netals		1
Chemistry 124Qualitative	1	5
Mathematics 152Mathematical Analysis	••	v
Machanical Eng 106 Engineering Drawing and		
Descriptive Geometry	2	3
Geology 110 Engineering Geology	•-	J
Military 102 Basic Course	ī	••
Physical Education 102Developmental Exercises	2	
	1	[8 <del>1</del>
Sophomore Year—First Semester		4
Mathematics 251Calculus		4
Physics 203 and 205General Physics for Engineers	. 2	2
English 111 Public Speaking	- :-	2
Civil Engineering 241Plane Surveying	. I	1
Civil Engineering 245 Engineering Problems		
Military 201 Basic Course	. 1	••
Physical Education 201Advanced Exercises	·· <u> </u>	
		181
Sophomore Year-Second Semester		4
Mathematics 252 Calculus	· :-	4
Physics 204 and 206General Physics for Engineers	2	
Civil Engineering 242Plane Surveying	2	_
Civil Engineering 246Construction Materials		_
Military 202Basic Course	1	
Physical Education 202Advanced Exercises	<u>1</u>	
		181

Junior YearFirst Semester	LAB.	LEC.
Mathematics 341Analytic Mechanics	LAD.	3
Civil Engineering 363Route Surveying	2	$\overset{\mathbf{o}}{2}$
Civil Engineering 367. Elementary Fluid Mechanics.	2	$\bar{\tilde{s}}$
Civil Engineering 369Nonmetallic Testing Laboratory	1	
Political Science 301 Constitution of U. S.	-	1
Economics 203. Engineering Economics	••	3
Engineering Devilonies		
		17
Junior Ycar—Second Semester		
Mathematics 342 Analytic Mechanics		2
Civil Engineering 364 Hydrology		3
Civil Engineering 366Roads and Pavements		3
Civil Engineering 376 Mechanics of Materials	1	3
Civil Engineering 374Metals Testing Laboratory	1	
Civil Engineering 378Framed Structures	2	<b>2</b>
Political Science 302 Constitution of Nevada		1
- Constitution of Provident		
	-	18
Scnior Year-First Semester .		
Civil Engineering 481 Framed Structures	<b>2</b>	2
Civil Engineering 485 Mechanics of Reinforced		
Concrete	1	3
Civil Engineering 487 Highway Engineering	••	3
Civil Engineering 489Sanitary Engineering		3
Civil Engineering 491Contracts and Specifications		2
Elective		2
-		
	1	18
Senior Year-Second Semester		
Civil Engineering 484Structural Design	3	1
Civil Engineering 486Reinforced Concrete Design	2	1
Civil Engineering 488 Engineering Economy		2
Civil Engineering 490Sanitary Engineering		3
Civil Engineering 492 Foundations		2
Civil Engineering 494 Irrigation Engineering		3
Elective		1
		_

# 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 black-smithing, 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 126 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.

	RRICULA IN AGRICULTURE	t 20
Military 101-102	Uniform Freshman Year Sem  Basic Course, First Year 1  Developmental Exercises ½  Composition and Rhetoric 3  General Inorganic Chemistry 4	i. Sen
Zoology 101 Botany 103 Animal Husbandry 101 Dairy Husbandry 102	mistry 124	3  3 2 
addition 105	15½	16

# GENERAL AGRICULTURE MAJOR

	Sophomore Year	1st Sem.	2d Sem.
201 000	Second Year Elementary Military.	1	1
Military 201-202	Advanced Empresses	1,	$\frac{1}{2}$
Physical Educ. 201-202	Advanced Exercises	- 9	$\tilde{3}$
Agr. Economics 101-102	Principles of Economics	•?	
Animal Husbandry 203	Livestock Judging	•)	
Agronomy 201	Field Crops	0	
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		3
Flactive	Recommend Economic Geography.	2	
TARCETY C			
		$16\frac{1}{7}$	$15\frac{1}{2}$
	Junior Year		_
	=		3
	Feeds and Feeding		
	Soil Fertility		 3
	Vegetable Production		
			7
Electives		5	4
		17	17
	Senior Year		
Political Science 301-302	Constitution of U. S. and Nevada	. 1	1
	onstitution of C. S. and Ivernal		9
			7
(Recommended, Journalis			
(Mecommended, Journalis	sm 510)	17	17
		14	1,
AGRICU	LTURAL ECONOMICS MAJOR		
$oldsymbol{U}$	niform Freshman Year		
-			
	(See Page 37)	1st	2d
	Sophomore Year	Som	
Military 201-202	Basic Course	1	1
Physical Educ. 201-202	Advanced Evercises	1	$\frac{1}{2}$
Agr. Economics 201-202	Principles of Economics with	_	
	Application to Agriculture	3	3
Agronomy 201-202	Field Crops and Forage Crops		3
Agronomy 216	Soils		3
Animal Husbandry 203	Livestock Judging	٠٠ ٠٠٠٠٠٠	
English 111-112	Public Speaking	 റ	$\overset{\cdot \cdot }{2}$
Electives	uone speaking	2	4
		4	-1
			${16\frac{1}{2}}$
		161	103

the College of Agriculture	Wast.	1//
	1st	2d
Junior Year	Sem.	
Agr. Economics 357 Marketing Agricultural Products	3	
Agr. Economics 355 Farm Finance	2	
Agr. Economics 352 Agricultural Economic Policy		3
Agr. Economics 356Land Economics		2
Sociology 350 Rural Sociology		2
Economics 361 Statistical Methods	3	
Agr. Economies 245	3	
Animal Husbandry 330 Feeds and Feeding		3
Electives	6	7
	17	17
Scnior Year		
Political Science 301-302Constitution of U. S. and Nevada	1	1
Agr. Economics 465 Agricultural Prices	3	
Agr. Economics 476 Farm Management		3
Agr. Economics 464Cooperative Organizations		<b>2</b>
Economics 353 Money and Banking	3	
Agronomy 353 Irrigation and Drainage	2	
Farm Mechanics 354 Irrigation Structures and		
Agricultural Surveying		<b>2</b>
Electives	8	8
	17	16
Recommended electives for Agricultural Economics Major-		
Farm Mechanics 211 and 220.		
Animal Husbandry 358 or 466.		
Agronomy 316, 359, and 360.		
	8 .	
Economies 107, 110, 358, 362, 364, 373.		12.
Business 241, 247, 371.		Shirt .
Geology 101 or 110.		
Psychology 201, 205.		
Journalism 370.		
or o		
AGRICULTURAL EDUCATION		
	1st Sem.	2d Sem.
		1
Military 101-102 Basic	1	1/2
Chrsical Ltd 101 100 Development Exercises	2	$\tilde{3}$
English 101-102 Composition and Rhetoric Chemistry 101 102 Copenal Inorganic	0	2
Chemistry 101 109 Conord Inorganic	-	

Akti	HOCHICIMIE -	1st	2d
	Freshman	Sem.	Sem.
Military 101-109	Basic	1	1
Physical Ltd ros roo	Dovolonment Exercises	2	1/2
English 101 100	Composition and Rhetoric	0	$\frac{3}{2}$
Chemietary 101 100	Conoral Ingress nic		
Z0010gr 101	Survey of Zoology	0	3
B0tang 100	Conoral Rotany		
Animal Hardon day 101	Droods of Livestock		3
Dairy Hanks and too	Elements of Dairy Rusbandiy		$\tilde{2}$
HOrtion land don	Themonts of Hornellulus		
Orientation 109	Survey of Agriculture		2
Mathematics 101			
		$15\frac{1}{2}$	$16\frac{1}{2}$

	Sophomore	181		2d Sem.	
2011 004 009	•	Sem	•	1	
Military 201-202	Basic Course	1		}	
Physical Education 201-203	2.Advanced Exercises	2			
Animal Husbandry 203	Livestock Judging	, 0		3	
Agronomy 216	Soils				
Agronomy 201	Field Crops	o		3	
Agronomy 202	Forage Crops				
	School Law				
	Farm Poultry Management			2	
Farm Mechanics 220	General Mechanics			4	
Agr. Economics 101-102	Principles of Economics with			3	
C1 1 1 0 10	Application to Agriculture	3		3	
	Introductory Organic			2	
Electives		2	_		
		17	1	$17\frac{1}{2}$	
	Junior				
Animal Husbandry 330	Feeds and Feeding	<b>.</b> .		3	
Dairy Husbandry 352	Milk Production			3	
Agr. Economics 245	Farm Accounting	3			
Farm Mechanics 341-332.	Farm Machinery, Farm Structures	2		2	
Agronomy 353	Irrigation	2			
Psychology 221	Educational			3	
Education 310	Problems in Secondary Education.	. 2			
Farm Mechanics 212	Welding			2	
Animal Husbandry 301	Anatomy and Physiology of Farm				
	Animals		:		
Political Science 301-302	Constitution of United States	0			
		1		1	
Electives		4	Į	3	
					-
	,	17	•	17	
	Senior	1	2 We	3	
Agranamy 250		Six			
Agronomy 217	Range Management	3 -			
Agronomy 401	Soil Fertility	3.			
Farm Mechanics 485	Crop Standards	2.			
Farm Mechanics 453	Methods of Farm Shop	2.			
Education 446	Gas Engines and Tractors	2 .		•	
110	Problems in Agricul-			2	
Education 447	tural Education				
Education 490	Methods of Teaching	:	_		
Education 482	Practice Teaching		. '	6	
	Noninstructional Responsibility				
		:	1	1	
	of High School Teachers	5	2		
	- 1	7 1	 5		
	SUGGESTED ELECTIVES		-		
	Sophomore		'st	2 d	ı
English 111	To the second of			Sen	
Sociology 250	Public Speaking		2		
990,	Rural Sociology			2	,

Junior	1st	
Agronomy 346Weed Control	Sem	. Sem. 3
Journalism 370 Agricultural and Home Economic	o	
Animal Husbandry 458Range Livestock Management	US 4	••
Horticulture 356Vegetable Growing	4	3
Farm Mechanics 211Forging		_
Mathematics 102 Plane Trigonometry	Z	••
Flane Trigonometry	Z	
Senior		
Dairy Husbandry 462 Special Problems		2
Agricultural Prices	3	
Marketing Agricultural Products	3	
Agr. Economics 355 Farm Finance	2	
Allinai Husbandry 455 Advanced Feeding	3	
normculture 201 Ornamental Horticulture	2	
Civil Eligineering 241 Plane Surveying	3	
Education 145 Vienal Aide	- 3	
Journalism 370. Agricultural and Home Economics	s 2	
and the state of t		
PLANT PRODUCTION MAJOR		
AGRONOMY—CROPS OPTION		
Uniform Freshman Year		
(See Page 175)		
(200 200)	$15\frac{1}{2}$	$16\frac{1}{2}$
	1st	2d
Sophomore Year	Sem.	Sem.
Military 201-202 Basic Course	. 1	1
Fhysical Edu. 201-202 Advanced Exercises	$\frac{1}{2}$	$\frac{1}{2}$
Agr. Economics 201 Principles of Economics with		
Application to Agriculture	. 3	-:
Unemistry 242 Introductory Organic		3
Agronomy 201 Field Crops	. ฮ	
Agronomy 202 Forage Crops		3
Farm Mechanics 211 Forging		
Agronomy 216 Soils		3
Edglish 111 Public Speaking	2	
Botany 220 Taxonomy		4
Electives	5	2
•	16 <u>1</u>	16½
Junior Year		
Farm Mechanics 200 Congred Mechanics	••	2
Agronomy 317. Soil Fertility	3	
Agronomy 250 260 Putneinles of Range and		
Pasture Management	3	3
Agronomy 346 Weeds and Weed Control		3
Agronomy 355	3	•-
Agronom- 205 Crop Ecology		
Agronomy 367. Literature of Field Crops, or 460. Literature of Forage Crops	2	
or 460 Literature of Forage Crops	1	
Dlant Physiology		2
400100n 9=0	-	7
Electives Genetics		
17	, :	17

180	University of the tank Same 8			
	Torri	Sem.	$\begin{array}{c} 2d \\ Sem. \end{array}$	
	Senior Year			
Varonomy 353	Irrigation and Drainage	4	2	
Form Machanics 35	54 Irrigation Structures		3	
			J	
Agronomy moderne 3			1	
Political belefice of	and Nevada	1		
Data 961	Diant Dathology		••	
			3	
			3 3	
Agr. Economics 4	76 Farm Management	7	4	
Electives	***************************************			-
		17	16	
	Crops Option—Suggested Electives		Tredits	
	. ~		. 3	•
Geology 110	Engineering Geology General Physics		3 🕂	-3
Physics 153-154	General Physics		3	
Geography 109	Climatology		3	
Horticulture 353.	Fruit Growing		. 9	
Agr. Economics 2	245. Farm Accounting		0	
Agr Economics	245Farm Accounting		2	
Animal Husband	lry 203Livestock Judging		3	
Animal Husband	lry 330Feeds and Feeding		3	
Amman Tusbane				
	t man area Dagagnah		3	
es t ex dis de	070 3(11 Y)342.cm			
Dairy Husbandi	ry 352 Milk Production Seminar		1–	2
Journalism 370	Agricultural Journalism			
	RANGE AND PASTURE MANAGEMENT			
	Uniform Freshman Year			
	(See Page 175)			1
	(1000 1 tigo 210)		$15\frac{1}{2}$	$16\frac{1}{2}$
			1st	2d
	Sophomore Year		Sem.	Sem.
Military 201-20	02Basic Course		. 1	1/2
Physical Edu,	201-202 Advanced Exercises		. 1	2
Agr. Economic	cs 201Principles of Economics with			
9	Applications to Agriculture		3	••
Chemistry 24	2Introductory Organic			3
Vathematics	102Plane Trigonometry		3	
Agranamy On	2Forage Crops			3
Datam 900	Taxonomy			4
Form Markar	nice 911 Donaina		2	
	nies 211Forging			3
Agronomy 21	l6Soils			
Animai Hush	pandry 203 Livestock Judging		ა	
English 111	Public Speaking		2	2
Electives			2	4
			101	$\frac{-16\frac{1}{2}}{16\frac{1}{2}}$
			$16\frac{1}{2}$	102

Junior Year	1st 20	
Agronomy 316Soil Conservation	Sem. Ser	
Agronomy 359-360Principles of Ra	ngo and Pasturo	•
Managament	3	•
Agronomy 346Weeds and Weed	I Control	
Agronomy 464	n 1	
Animal Husbandry 330Feeds and Feed	ing	
Agronomy 259	ing 0	
Agronomy 353	Drainage2	
Botany 355 Plant Physiology	y <del>1</del>	
Civil Engineering 241Surveying	3	
Electives	5 4	
	17 17	-
Senior Year	<b>2.</b>	
Farm Mechanics 354Irrigation Struct	ures 2	
Botany 475	4	
Botany 354 Agrostology Agrostology		
Agr. Economics 245	,	
Zoology 250 Farm Accounting		
Zoology 359 Entomology		
Agronomy 469. Range Literature	Management 3	
Agronomy 468. Advanced Range	Management 2	
Animal Husbandry 458Range Livestock	Management	
Political Science 301-302Constitution of U	nited States	
and Nevada	1 1	
Electives	4 5	
	17 16	
Range and Pasture Option—Suga	gested Electives Credits	
Agronomy 317Soil Fertility	3	
Farm Mechanics 332 Farm Machinery	and Equipment 2	
Agr. Economics 356 Land Economics	2 mu 14 m	
Geology 110 Engineering Geology	3	
Physics 151-152 and 153-154 General Physics	3 +3	
Zoology 350Genetics	2 or 3	
Agr. Economics 476. Farm Managemen	<b></b> 3	
Apimal Hard Apimal	oiology of	
Animal Husbandry 301 Anatomy and Phy	3	
Animal VI	Aimale and	
Animal Husbandry 302Diseases of Farm	Animais and	
Poultry	2	
Dairy Husbandry 352 Milk Production	4	
Diant Dethology		
Till Mochanics one Company Machanics		
Botany 476 General Mechanics	4	
Botany 476. Plant Ecology	4	
Botany 476. Plant Ecology Agronomy 201 Field Crops JOurnalism 979	4 	
Botany 476 General Mechanics	4	

#### AGRONOMY—Soils Option

Uniform Freshman Year (See Page 175)

With themister 100 or	124 required in the second semes	ter.	
with Chemistry 122 or	124 required in the second second	$15\frac{1}{2}$	$16\frac{1}{2}$
86	ophomore Year S	1st $em.$	2d Sem.
			1
Military 201-202	sic Course	 1	$\frac{1}{2}$
Physical Edu. 201-202Ac	lvanced Exercises	- 2	-
Agr. Economics 201-202Pr	Economics	3	3
7 16 1 1 Add B	Economics	2	
Farm Mechanics 211Fo	orging	. 2	
Agronomy 201F1	eld Crops	. 0	3
Agronomy 202	orage Crops	• ••	3
Agronomy 216So	oils		
English 111Pt	ablic Speaking	. 4	
	uantitative Analysis	0	
Chemistry 232 or 242Q			3
	Introductory Organic		3
Electives		2	
		$\frac{-}{16\frac{1}{2}}$	161
	Junior Year	102	
7) - 4 0		4	
Botany 355P	lant Physiology	11	••
Agronomy 317	oil Fertility	მ	••
Agronomy 315S	oil Genesis	ა	2
Farm Mechanics 220	eneral Mechanics		3
Agronomy 316S	oil Conservation		4
Physics 151-152, 153-154G	eneral Physics	4	3
Geology 110F	Engineering Geology		5 5
Electives		3	ð
		17	17
	Senior Year	4.	
Rotony 264		4	
Roteny 951	Plant Pathology	4	••
Political Science 201 200	General Bacteriology	4	••
Toffical befefice 501-502(	Constitution of United States	4	1
Agronomy 252	and Nevada	1	_
Form Mochanics 276	rrigation and Drainage	2	2
Agronomy 4710	Irrigation Structures		1
Agronomy 210	Soil Seminar		3
Agr Feenomics 470	Soil Analysis		
Agr. Economics 476	Farm Management		3
rath mechanics 552	tarm Machinery and Danismont		2
ratectives	and Equipment	6	4
		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
	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	<i>i</i>
Farm Mechanics 212	Welding	2
Farm Mechanics 353	Gas Engines and Tractors	. 2
Civil Engineering 241	Surveying	
Journalism 370	Agricultural Journalism.	. э
	HORTICULTURE OPTION	
	Uniform Freshman Year	
	(See Page 175)	
	Sophomore Year Sem.	2d Sem.
Milita	Sopnomore 1ear Military 1	1
Physical 72	Second Year Elementary Military 1	$\frac{1}{2}$
Agn E	Advanced Exercises	3
Hortically	Ornamental Horticulture	•-
Horticulture 201	Plant Propagation Apatomy 3	2
Boton- 804	Plant PropagationPlant Morphology and Anatomy 3	
		3
English 111	Public Speaking	••
		3
Farm Market Cont	Forging 2	••
		2
Elections	Farm Utilities 3	2
-4cctt/62		10:
	16½	$16\frac{1}{2}$

Junior Year Sem. 8  Horticulture 353Fruit Growing3	2 <b>d</b> Sem.
Houtigaltana 250 Vanatulla Chamina	
Horticulture 356Vegetable Growing	3
Botany 364Plant Diseases	
Farm Mechanics 332Farm Machinery	2
Zoology 359	
Zoology 350Genetics	2
Agronomy 317Soil Fertility3	
Geology 110Engineering Geology	3
Agr. Economics 355 Rural Finance 2	
Agr. Economics 352Agricultural Economic Policy	3
Electives	-1
17	17
Senior Year	
Political Science 301Constitution of United States and	
Nevada 1	1
Botany 355Plant Physiology4	
Agronomy 453Irrigation	
Farm Mechanics 356Irrigation Structures	2
Horticulture 354Pest and Disease Control	5
Farm Mechanics 353	_
Horticulture 491-492 Special Problems in Horticulture 3	3
Electives	9
17	17
Recommended Courses	
Journalism 370	3
Agronomy 316	3
Agronomy 201-202 Field and Forage Crops 3	3
Agronomy 346. Weeds and Weed Control.	3
Farm Mechanics 435. Advanced Agricultural Mechanics 2	0
Farm Mechanics 341. Farm Structures 2	••
rigit 13COROLLICS 24th Rights Accounting	
Algertation of the particular	
Agr. Economics 476Farm Management	
arm Management	3

## Animal Production Major

Uniform Freshman Year (See Page 175)

		$15\frac{1}{2}$	16
	Sophomore Year	1st Sem.	2d Sem.
Military 201-202	Basic Course		1
Physical Edu, 201-202	Advanced Exercises.	1	
Agr. Economics 101-102	Principles of Economics with		
	Application to Agriculture	. 3	3
Animal Husbandry 203	Livestock Judging	3	
Agronomy 101-102	Field Crops—Forage Crops	3	3
Chemistry 242	Introductory Organie		3
Farm Mechanics 211	Forging	2	
Farm Mechanics 220	General Mechanics		2
Horticulture 204	Plant Propagation		2
Poultry Husbandry 101	Farm Poultry Management	3	
Agronomy 216	Soils		3
English 111	Public Speaking	2	
	- time is feeting.		
•		$17\frac{1}{2}$	$17\frac{1}{2}$
	Junior Year		
English 112	Public Speaking		2
Horticulture 356	Vegetable Production		3
Agronomy 350	Principles of Range and Pasture		
the state of the s	Management	3	
Animal Husbander 250	Range Livestock Management		
Animal Husbander 220	Feeds and Feeding	<del>-</del>	3
Animal Husbanday 256	Advanced Livestock Judging	3	
Animal Husbanday 202 201	Animal Husbandry Literature	2	2
Farm Mechanics 211	Farm Structure	2	-
Dairy Husbanday 252	Milk Production		3
Electives	MIK Production	5	4
Recommended:			
Farm Mechanics 353-341			
Animal Husbandry 301-302	,		
Traspandry 501-50.	-		
		17	17
	Senior Year		
Political Science 301-302C			
- order Science 301-302C	and Nevada	. 1	1
Animal II	and Nevadadvanced Feeding	. 3	
Animal Husbandry 455A	ivestock Management		3
Farm Mark	arm Machinery and Equipment		- 3
Farm Mechanics 332F	arm Machinery and Equipment		2
Agr Foods:	Velding		3
Agr. Foods 476F	arm Management Products	3	
Agr. D	larketing Agricultural Products	3	3
Floation Flo	arm Accounting	6	
-4ccH468	arm Accounting		
	•	16	15

## QUALIFICATION 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 fourteen 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 ones 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

220222	23 con chines 12monnia nineon	
	Freshman Year	1st Sem.
English 101-102	Composition and Rhetoric	3
Chemistry 101-102	General Inorganic Chemistry	4
Home Economics 103	Orientation	2
Home Economics 131	Food for Families	
or		
Home Economics 115	Clothing	3
Home Economics 132	Foods for Families	
$\mathbf{or}$		
Home Economics 116	Textiles	
Music 203 or 204	Music Appreciation	
Physical Education 161-	162.Freshman Practice	1
Art 101-102	***************************************	2
Economics 218	Family Economics	
Electives		
		-
		15
	Sophomore Year	
Physics 119	Physics of the Home	4
Home Economies 115	Clothing	
$\mathbf{or}$		
Home Economics 131	Food for Families	3
Home Economics 116	Textiles	
or		
Home Economics 132	Foods	
Home Economics 233	Nutrition and Health	3
Home Economics 367	Clothing the Family	
Education 190	School Law	2
Journalism 370	Agricultural Journalism	
English 111	Public Speaking	2
Psychology 221		
Art	Appreciation or Crafts	2
Physical Education 261-2	62. Sophomore Practice	2
llectives	······	······ ··
		161
		102
	Junior Year	. 0
Education 310	Problems in Secondary Education	1 2
10me Economics 475	Child Development	0
10mp Economica 200	Advanced Clothing	
Iome Economica 952	Care of Family Health	
0ma Economica 476	Family Living	
iomo Hoomand orr	Moole for Families	
Inma Foonamica 407	Home Decoration	
10mo Foon on the 100	Monoging Homes	
'Alitiani Salaman 901	Constitution of United States	
ingiala noa	mbo Femily	
lectives	The Family	ə
***************************************		
	•	17

188			2 <i>d</i>	
	Senior Year	1st Sem.	Sem.	
	Semoi 1ea	3		
Home Economics 499	Demonstration	·	3	;
Education 489	Methods in Teaching Homemaking Household Equipment	7" 2		
Home Economics 488	Methods in Teaching Tomes		3	}
Education 488	Problems in Homemaking Edu			
		1		
Education 475-476	Supervised Teaching in High		1	6
Education 4.0 1.0	School			
Dollitical Science 209	Constitution of Nevada	1		
Pointeat Science ooz				2
		:-		_
Til Alimo	of High School Teachers	ð		
Elective			-	 L <del>1</del>
		15	J	14
Dandad:				
Recommended : Horticulture 201				
Foo	DDS AND NUTRITION MAJOR			2d
100		1st Sem.	S	zu Iem.
	Freshman Year			3
English 101-102	Composition and Rhetoric			2
				3
Liama Economice III3	11160131100			3
Chamistry 212	infroductory organic			3
Socialogy 109				3 1
Obveionl Education 16	11_169			_
Florting	1-102	2		1
1310011103				10
		15	,	16
	Sophomore Year			
Physics 119			Ł	
Home Economics 116	Textiles			3
Perchology 201	General		3	••
Develology 201				3
Dhilosophy 221				3
Economics 218				3
Agricultural Francis	ics 201		3	••
Dhreical Education 9	61-262		1	1/2
Floatives			5	4
Diectives				
		4	154	$16\frac{1}{2}$
	Junior Year	-		
Other transfer			=	
Chemistry 2/1	Physiological		.,	3
Home Economics 33-	4Nutrition			
Home Economics 49	9Demonstration		. 3	••
Home Economies 49	3Experimental Foods		. <i>.</i> .	2
English 315				4
Home Economics 25	5Meal Planning			5
Zoology 346	Physiology			9 2
Electives			. 5	2
			15	16
The state of the s				

Senior Year	1st Sem.	$\begin{array}{c} 2d \\ Sem. \end{array}$
Home Economics 491	3	
Home Economics 475-476		3
Home Economics 436Nutrition		3
Political Science 301-302Constitution United States and		
Nevada	1	1
Biology 351 Bacteriology	4	
Home Economics 498		3
Home Economics 496		3
Home Economics 402 Seminar		·· 3:
Electives		
	16	16

## 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.

## 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 candi-

dates 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  $f_{ees}$ :

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 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.

<sup>\*</sup>Graduate students must be certain that the course carries graduate credit.

4. Diploma Fee—A fee of six dollars 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 six 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 \$13.00 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 specifica-

tions 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 six 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 preced-

ing 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 fulltime 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 department 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 degree is five dollars.

## 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

Agricultural Economics

Agronomy Crops

Soils

Farm Mechanics

Animal Husbandry

Dairy Husbandry Poultry Husbandry

Art

Astronomy (See Physics 107)

Athletics (See Physical Education)

Biology

Botany Zoology

Business (See Economics, Busi-

ness, and Sociology)

Chemistry

Civil Engineering

Crops (See Agronomy)

Dairy Husbandry (See Animal

Husbandry)

Economics, Business, and

Sociology

Education

Kindergarten—Primary

General Elementary

Secondary

Educational Psychology Vocational Agriculture

Electrical Engineering

English Language and Literature Literature and Composition

Speech

Farm Mechanics (See Agronomy)

Foreign Languages

French

German

Italian

Portuguese

Spanish

Geography

Geology

German (See Foreign Languages)

History and Political Science

Home Economics

Horticulture

Italian (See Foreign Languages)

Journalism

Latin (See Foreign Languages)

Library Science

Mathematics and Mechanics

Mechanical Engineering

Mechanic Ārts

Metallurgy Military Science and Tactics

Mineralogy (See Geology)

Mining

Music Philosophy Physical Education

Men

Women

**Physics** Political Science (See History and Soils (See Agronomy)

Political Science) Portuguese (See Foreign Languages) Zoology (See Biology)

Husbandry) Psychology

Spanish (See Foreign Languages) Sociology (See Economics, Business,

Poultry Husbandry (See Animal

and Sociology)

Speech (See English)

#### 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 desig-

nates 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.

Note-Numbers in parentheses are designations used before September, 1948.

#### AGRICULTURAL ECONOMICS

Professor Wittwer (Chairman of Department), Professor TITUS.

201 (1). Principles of Economics with Applications to Acriculture. 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 year. First semester. Three credits. Witt-

wer.

202 (2). Principles of Economics with Applications to AGRICULTURE. A continuation of 201.

Second semester. Three credits. Wittwer.

245 (45). 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 (52). 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 (55). 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 (56). Land Economics. Deals with the underlying principles pertaining to urban, agricultural, mineral, forest, range, and other types of land in their social setting. Attention is focused on land resources, their classification, valuation, and use and related problems of finance, including taxation and rents.

Prerequisite: Agricultural Economics 201 and 202. Second semester.

Two credits. Wittwer.

357 (57). 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.

464 (64). 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 (65). 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 (71). Current Economic Problems of Agriculture. Business eyeles 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 (76). 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.

Prerequisite: Senior standing. Second semester. Three credits.

Wittwer.

484 (84). 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 (199-200). Thesis Course in Agricultural Eco-NOMICS.

Either semester. Credit to be arranged. Wittwer.

#### AGRONOMY

Professor Titus (Chairman of Department); Associate Professors Robertson, Dunn.

Crops

201 (5). 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 lab-

oratory period. Three credits. Fee \$2. Robertson.

202 (2). 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 of forage plants.

Prerequisite: Botany 103. Second semester. Two lectures; one

laboratory period. Three credits. Fee \$2. Robertson.

346 (46). 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 (55). Crop Ecology. Adaptation and environment of erop 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 (60, 67). Principles of Range and Pasture Management. A basic course in the management of pastures and langes 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 alter-

nate years. 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.

Three lectures. Three credits. Given in alternate years. Dunn.

464. RANGE AND PASTURE FIELD TRIP. A one-week excursion through Nevada to study range and pasture problems and practices. Only transportation furnished. June 6-12, following junior year.

Prerequisites: Agronomy 359 and 360. One credit. Fee \$3. Robert-

son.

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 alter-

nate years. Two credits. Robertson.

513a (200). Thesis Course in Agronomy. Either semester. Credit to be arranged. Robertson.

#### Soils

216 (7). 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 (61). Soil Genesis, Classification and Survey. 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.

Prerequisites: Junior standing. First semester. Two lectures; one laboratory period. Three credits. Given in alternate years. Fee \$3.

Dunn.

316 (66). Soil Conservation. Soil as a natural resource and the soil erosion problem. 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 the Soil Conservation Service and other organizations which aid in soil conservation. Soil capability, land use, and farm plans. Field trips.

Prerequisites: Junior standing. Second semester. Two lectures; one

laboratory period. Three credits. Fee \$3. Dunn.

317 (62). Soil Fertility. Requirements for the production of field crops. Concepts of soil fertility and productivity. study of the various plant nutrients as applied to soils. Manures, green manures, crop residues and commercial fertilizers. tenance of soil fertility. Laboratory methods in soil fertility.

Prerequisites: Junior standing. First semester. Two lectures; one

laboratory period. Three credits. Fee \$3. Dunn.

318 (61). Soil Analysis. Laboratory methods in soil analy-Total analysis of a soil; base exchange capacity and exchangeable bases; soil reaction and soluble salts. available nutrients.

Prerequisites: Junior standing. Chemistry 231. Second semester. Two lectures; one laboratory period. Three credits. Given in alternate

years. Fee \$3. Dunn.

353 (54). IRRIGATION AND DRAINAGE. Principles underlying irrigation and drainage in regard to soil and plant relationships. Nature and movement of water in soils. Water requirements and the relation of soil moisture to the growth of crops. Principles involved in the reclamation of alkali soils.

Prerequisites: Junior standing. First semester. Two lectures. Two

credits. 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 crop-

ping 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. ADVANCED SOIL CONSERVATION. A detailed study of the application of various practices and methods of farming, for soil and water conservation and for permanent agriculture.

Prerequisites: Agronomy 316 and 317 or 360. First semester. 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.

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.

521a. Research in Soils.

Either semester. Credit to be arranged. Dunn.

523a. Thesis Course in Soils. Either semester. Credit to be arranged. Dunn.

#### Farm Mechanics

Instruction and laboratory practice in 211 (11). Forging. the heating, bending, shaping, and welding of mild steel. ing and tempering of tool steel; general forging.

First semester. Two credits. Fee \$5. Titus.

- 220 (20). 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 (32). 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 (35). 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 (41). 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 (53). 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 (54). IRRIGATION STRUCTURES. A course designed to acquaint the student with the mechanics of getting irrigation water onto the land. Measurement of water, sources of water supply, preparation of land, methods of irrigation, irrigation structures, water law, drainage.

Prerequisite: Agronomy 353. Second semester. One lecture, one laboratory. Two credits. Fee \$5. Titus.

485 (85). 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 Wilson (Chairman of Department), Scott; Mr. VAWTER.

101 (1). 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. Wilson.

203 (3). 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. Wilson.

253 (53). LIVESTOCK REGISTRATION. The details of registering purebred 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. Wilson

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.

Vawter.

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 regu-

Prerequisite: Animal Husbandry 301. Second semester. Two credits. Vawter.

330 (30). 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. Wilson.

352 (52). 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. ree credits. Wilson.

Three credits.

356 (56). 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. Wilson.

358 (58). Range Management. Lectures covering the following subjects in animal husbandry. Development and proper distribution of stock-salting grounds; rotation and proper location of drift fences; estimation of carrying capacity; methods of mapping in range lands; range-destroying rodents; grazing administration within the National Forests; various systems of handling range lands within the United States and in foreign countries; general range problems.

Prerequisites: Animal Husbandry 101, 203, 330; Botany 222. Second

semester. Three credits. Wilson.

363-364 (63-64). 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. Wilson.

455 (55). Advanced Livestock Feeding. Continuation of animal husbandry 330.

Prerequisite: Animal Husbandry 330. First semester. Lectures, three hours. Three credits. Wilson,

459 (59). Professional Judging.

First semester. Laboratory, one period. One credit. Given in alternate years. Fee \$5. Wilson.

461-462 (61-62). Animal Husbandry. Thesis course. Special problems in animal production and management. Problems relative to the open range under the provisions of the Taylor Grazing

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. Wilson.

466 (66). 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. Wilson.

#### Dairy Husbandry

102 (1). 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. 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 (53). MILK PRODUCTION. Dairy husbandry in its relation to the producer of dairy products rather than the manufacturer. The lectures deal with the problems of the dairy farmer, such as adaptations of the dairy breeds, selection, management, feeding of dairy cattle, dairy barns, and calf-raising. The laboratory includes the judging of dairy cattle, visits to the local dairy farms and the observation of systems of dairy management followed by them.

Prerequisite: Dairying 102. First semester. Lectures, two hours;

laboratory, one period. Three credits. Fee \$5. Scott.

354 (54). 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, sherbert, 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 (55). Dairy Sanitation. This course is the application of bacteriology to the problems of the producer and consumer of milk. It deals with the fundamental principles upon which are based sanitary production and handling of milk, cream-ripening and curing of cheese, the market milk industry; the relations of milk to the public health and the important relations of butterand cheese-making.

Prerequisite: Dairying 102 and Zoology 103. First semester. Lecture

one hour. Laboratory, one period. Two credits. Fee \$5. Scott.

Use of dairy herd 457 (57). Advanced Milk Production. books; special feeding for higher records; interpretation of official tests

Prerequisite: Dairying 102. First semester. Lectures, two hours.

Two credits. Scott.

461-462 (61-62). Seminar. Special problems in production or sanitation and city milk supply. Laboratory material is available of able 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 (1). 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 (8). Turkey Production and Management. This course deals with the practical management of turkeys, primarily for meat production. No laboratory period is arranged for, but about two trips are planned each year, one at marketing time and one at hatching and breeding time.

Second semester. Two credits. Fee \$2. Scott.

#### ART

Assistant Professor Sheppard, Mrs. Joslin

Requirements for a minor in Art: Art 101 and 102 (4 credits), or 101 or 102 and Art 105 (4 credits), Art 103 or Art 115 (2 credits), and 12 additional credits in the department at least 6 of which must be in courses numbered 300 or above.

A total laboratory fee of \$10 per course will be charged to all visitors.

101-102 (1-2). 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 cach semester. Fee \$3. Joslin.

103 (3). 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 (5). 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 (1 E). Freehand Drawing. Designed for Engineers. First semester only. One credit. Fee \$3. Sheppard.
- 115 (15). 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 (21). Freehand Drawing. Evening Class. Sketching from models and still life.

Either semester. One credit. Fee \$3. Sheppard.

251-252 (51-52). 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 (53-54). 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 scmester. Fee \$3. This course may be repeated

for credit as Art 353-354. Joslin.

257-258 (57-58). 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 (61). 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 (55-56). 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 poblems.

Prerequisites: Art 101-102-251-252. Three credits each semester. Fee

\$3. Sheppard.

359-360 (59-60). 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 (62). 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 (63-64). 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**

Professor Lehenbauer; Associate Professors Billings, Low-RANCE (Chairman of Department); Assistant Professors Rich-Ardson, Fisher, Larivers.

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The department of biology includes the following divisions: botany and zoology.

Requirements for a minor in biology, 9 credits in botany and 9 credits in zoology. Of these 18 credits, at least 6 must be in courses numbered 300 or above.

Requirements for a major in biology: A total of 27 credits of which not more than 15 may be in either botany or zoology. Of the 27 credits at least 12 must be in courses numbered 300 or above.

Students who intend to teach in secondary school are advised to take the combination minor or major in biology rather than the major or minor in either subject alone.

#### Botany

Requirements for a minor in botany: Botany 103 (3 credits), Botany 203 (4 credits), Botany 222 (4 credits), Botany 231 (3 credits), and 4 additional credits in the division of botany in courses numbered 300 or above.

Requirements for a major in botany: Botany 101 (3 credits), Botany 203 (4 credits), Botany 222 (4 credits), Botany 231 (3 credits), and 12 additional credits in the division of Botany in courses numbered 300 or above.

A year of chemistry is recommended for majors or minors in the division of botany.

Students planning to take a preforestry course should consult with the Chairman of the Department of Biology.

103 (1). 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 Lehenbauer.

203 (26). 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 cred-

its. Fee \$4. Lehenbauer.

222 (22). TAXONOMY. A systematic and comparative study of the principal families of flowering plants represented in the local flora and the identification of plants by means of manuals.

Prerequisite: Botany 103. Second semester. Two lectures; two lab-

oratory periods. Four credits. Fee \$1. Billings.

231 (21). 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. Lehenbauer.

315 (53). Dendrology. The intensive study of the taxonomy, silvies, 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.

317 (54). 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 (Bacteriology 51). 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 (55). PLANT PHYSIOLOGY. Intensive study of the basic 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 (64). 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. Lehenbauer.

370 (70). 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. Lehenbauer.

375 (68). 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. Lehenbauer.

475-476 (75-76). 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 is 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 (91-92). 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 Bontay 491-92. Lehenbauer and Billings.

495-496 (93-94). 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 instructors. One meeting per week. One or two credits each semester. Lehenbauer and

Billings.

549-550 (199-200). Thesis Course for Graduates.

#### Zoology

Requirements for a minor in zoology: Zoology 101 or 103, Zoology 209 or 211, Zoology 350, and 8 credits in zoology courses above 300.

Requirements for a major in zoology: Zoology 103, Zoology 209,

Zoology 350, and 15 credits in other zoology courses above 300.

Additional courses advised: Physics 151-152 (or admission credit), general chemistry, qualitative and quantitative analysis and organic chemistry; German 101-102 and 103-104.

101 (1). 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.

Students who have taken Zoology 101 may not take Zoology 103 except by special permission of the instructor and then for one credit only.

103 (2). 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 lecture and two laboratory periods. Four

credits. Fee \$4. Richardson.

209 (9). Comparative Anatomy of Vertebrates. Lectures on the progressive development of structures and functions from the lower to the higher vertebrates, leading up to human anatomy. Laboratory dissection of the dog-fish, salamander, and a mammal.

Prerequisite: Zoology 103. First semester. Lectures, three hours; laboratory, two periods. Five credits. Fee \$6. Richardson.

211 (11). 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 equivalent. First semester. Three lecture and two laboratory periods. Four credits. Fee \$6. Lowrance.

259 (59). ELEMENTARY ENTOMOLOGY. An introduction to the principles of entomology: Life histories, morphology, physiology and classification of insects and a brief introduction to Each student will collect and identify insect insect control. specimens and will prepare field data.

Prerequisite: Zoology 101 or 103 or equivalent. First semester. Two

lectures; one laboratory. Three credits. Fee \$4.

322 (22). 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. Lowrance.

333 (60). 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. Alternates with

Zoology 337. Richardson.

335 (60). Birds. A course especially designed for field workers, teachers, and naturalists. Plan of study similar to Zoology

Prerequisite: Zoology 101 or 103. Second semester. hours; laboratory, one period. Three credits. Fee \$2. Richardson.

337 (62). 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.

346 (58). 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 (50). 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.

A laboratory course 352 (52). Genetics Laboratory. designed to accompany Zoology 350. One credit. Fee \$3. Low-

Prerequisite or Parallel: Zoology 350.

rance.

355 (55). 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 cred-

its. Richardson.

364 (64). Embryology. Lectures on comparative embryology of vertebrates. The laboratory work consists of the study of preparations of the frog, chick, pig, and human embryos at various stages of development.

Prerequisite: Zoology 103 and 209, or 346. Second semester. Lectures, three hours; laboratory, two periods. Four credits. Fee \$3.

Lowrance.

368 (68). Histology and Organology. Study of elementary tissues, and the study of the development and structure of vertebrate organs.

Three lectures. Two credits. Lowrance.

463 (63). 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. Alternates

with Zoology 259. Fee \$2. Richardson.

491-492 (91-92). Advanced Zoology. Special zoological problems. Major students may select some problem for investigation under the direction of the instructor. Library reading, laboratory work, and reports.

Credits to be arranged. Student is limited to a total of eight credits in these in Zoology 491-92. Fee determined by type of work. Lowrance

and Richardson.

549-550 (199). Thesis Course for Graduates.

#### Business

(See Economics, Business, and Sociology.)

#### **CHEMISTRY**

Professors Sears (Chairman of Department), Moose, Deming; Associate Professor Williams; Mr. Morris, Mr. Drumm, Mr. Ravve, Miss Campbell.

Requirements for a minor in chemistry: Chemistry 101 (4 credits), 102 (2 credits), 122 (3 credits), 231-232 (6 credits), and 5 additional credits in the department in courses numbered 300 or above.

Requirements for a major in chemistry: Chemistry 101 (4 credits), 102 (2 credits), 122 (3 credits), 231-232 (6 credits), 341-342 (8 credits), 487-488 (1 credit), and 4 additional credits in the department in courses numbered 300 or above.

Requirements for the degree Bachelor of Science in Chemistry: See outline for Course of Study, page 197

101 (1). 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 (2). 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 (6). QUALITATIVE ANALYSIS. A lecture and laboratory course dealing with the principles and techniques of the semi-micro 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 (6A). 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 (9-10). 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.

Prerequisite: Chemistry 122 or 124. One lecture and two laboratory

periods. Three credits each semester. Fee \$8. Williams.

242 (4). 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. Three

credits. Fee \$4. Morris.

271 (25). 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 (72). 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. Sears.

333 (71). 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. Sears.

341-342 (51-52). 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 peri-

ods. Four credits each semester. Fee \$8. Morris.

352 (80). 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 bal-

Prerequisite: Chemistry 341. Second semester. Two lectures. Two credits. Moose.

391 (64). 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 peri-

ods. Two credits. Moose and Staff.

415 (75). The Periodic Law. A lecture and seminar course dealing with a 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. Sears.

443 (53). 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 (83-84). 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 (94). 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.

482 (92): History of Chemistry. A lecture course on the

development of the science of chemistry.

Prerequisite: Three years of college chemistry. Second semester. Two lectures. Two credits. Graduate credit given with consent of instructor. Deming.

487-488 (95-96). 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 May be repeated for maximum of two credits. Graduate

credit given with consent of instructor. Staff.

497-498 (99-100). Thesis Course for Undergraduates. 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 (74). 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. Sears.

544 (54). 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 (56). Advanced Organic Chemistry. 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 (85). 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 (86). 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 (101-102). ADVANCED PHYSICAL CHEMISTRY. ture course dealing with the thermodynamical functions and their partial derivatives.

Prerequisite: Chemistry 452. Two lectures. Two credits. Deming.

599 (200). Thesis Course for Graduate Students. Special problems for research chosen in consultation with some member of the department and carried on under his direction.

Prerequisite: Four years of chemistry and graduation from an approved college. Either semeter. Maximum of six credits. Fee \$4 per

credit hour, according to work. Moose and Staff.

# CIVIL ENGINEERING

Professors Blodgett (Chairman of Department), Bixby; Assistant Professor POOLMAN: Mr. ARNOLD.

241 (41). 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 (42). 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. Three classroom periods and two field or drawing room periods. Five credits. Laboratory fee \$5.

245 (45). 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 draw-

ing room period. Two credits.

246 (46). 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. Two classroom

periods. Two credits.

361 (61-62). 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. Hydostatic problems are also considered. Civil engineering students enroll for Civil Engineering 367.

Prerequisite: Mathematics 252. Three classroom periods. Three

credits.

363 (63). Route Surveying. 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 two

field or drawing room periods. Four credits. Laboratory fee \$5.

364 (64). Hydrology. The fundamental principles of hydrology and its related problems of climatology, stream-flow, run-off, underground water and snow surveys.

Prerequisite: Junior standing in engineering. Three classroom peri-

ods. Three credits.

366 (66). 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. Three classroom periods. Three

credits.

367 (67). 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 hydraulies is not overlooked.

Prerequisite: Mathematics 252. Three classroom periods and two laboratory or computation periods. Five credits. Laboratory fee \$5.

369 (69). 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 (72). 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 (74). 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 (76). 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.

378 (78). 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. Two classroom periods and two draw-

ing room periods. Four credits.

481 (81). Framed Structures. A continuation of Civil Engineering 378 and an extension to include deflections of simple frames, the analysis of statically indeterminate trusses, and elementary structural design.

Prerequisite: Civil Engineering 378. Two classroom periods and two

drawing room periods. Four credits.

Comprehensive and total 484 (84). STRUCTURAL DESIGN. problems in the structural design of typical engineering struetures.

Prerequisite: Civil Engineering 481. One classroom period and three drawing room periods. Four credits.

485 (85). MECHANICS OF REINFORCED CONCRETE. and analysis of structural members and units constructed from An introduction to the stress analysis of reinforced concrete. rigid and continuous frames.

Prerequisite: Civil Engineering 376. Three classroom periods. Three

credits.

486 (86). 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 (87). 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.

Prerequisite: Civil Engineering 363, 366. Three classroom periods.

Three credits.

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 (89). 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 (90). Sanitary Engineering. The collection, treatment and distribution of storm and domestic sewage and industrial The Public Health aspects are contemplated.

Prerequisite: Civil Engineering 489. Three classroom periods. Three

credits.

491 (91). 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 (92). Foundations. A study of the principles and practices of the design and construction of foundations for engineering structures.

Prerequisite: Civil Engineering 378, 485. Two classroom periods.

Two credits.

494 (94). 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.

Prerequisite: Civil Engineering 364, 367, 481, 485. Three classroom

periods. Three credits.

510 (110). Hydraulics of Open Channels. Elective. advanced study of the flow of water through open channels.

Prerequisite: Civil Engineering 367. Two classroom periods. Two

credits.

Elective. The theory. 511 (111). Hydraulic Machinery. construction, operation, and characteristics of hydraulic turbines, pumps, and other hydraulic machinery.

Prerequisite: Civil Engineering 367. Two classroom periods. Two

credits.

514 (114). 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 (120). Advanced Structural Design. Elective. This course affords the interested student an opporunnity 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 (121). 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 (124-125). Special Engineering Problems. Elective. This course 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 (200). 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 (Chairman of Department), Webster; Assistant Professors Plumley, Chadwick (on leave); Mr. Palmer, Mr. Brittan, Miss Poe, Mr. Skinner, Mr. Bagley, Mr. Schwartz, Mr. Wilson.

Requirements for the degree Bachelor of Science in Business Administration: See course of study outlined on page 197.

Requirements for a minor in Economics: Economics 201-202 (6 credits); 12 additional credits in economics or business courses, not less than 6 of which shall be in courses numbered 300 or above.

Requirements for a major in Economics: Economics 201-202 (6 credits), Economics 357 (3 credits), 492 (3 credits); Business Administration 243-244 (6 credits), and 9 additional credits in economics or business courses, which shall be in courses numbered 300 or above.

Requirements for a minor in Sociology: Economics 201-202 (6 credits), Sociology 201 (3 credits), and 9 additional credits in Sociology, not less than 6 of which shall be in courses numbered 300 or above.

Requirements for a major in Sociology: Economics 201-202 (6 credits), Sociology 201 (3 credits), Sociology 371 and 490 (6 credits), and 12 additional credits which shall be in sociology courses numbered 300 or above.

The following courses are recommended but not required for minors and majors in Economics: Philosophy 107-108, Psychology 201, 361, 382, 391, Mathematics 210-220, French and German.

Requirements for a major in Commercial Education (for students qualifying for the high school teacher's certificate in commercial subjects), Economics 201-202 (6 credits), Business Administration 243-244 (6 credits), Business Administration 247 (3 credits), Business Administration 351, Business Administration 353 (2 credits), and at least seven additional credits selected from the following: Economics 353, 358, and Business Administration 355-356, 368.

#### Economics

107 (7). 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 (10). ECONOMIC HISTORY OF THE UNITED STATES. Introductory historical treatment of the economic development of America.

Second semester. Two credits. Open to freshmen. Staff.

201 (1). 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 (2). Principles of Economics. A continuation of economics 201

Either semester. Three credits. Staff.

- 203 (3). 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 (18). Consumer Economics. A study of the consumer from the standpoint of family buying and financial management, marketing and income distribution.

Second semester. Three credits. Inwood.

351 (51). Public Finance. Public expenditures and sources of public revenue.

Prerequisite: Economics 201-202. First semester. Three credits.

Brittan.

353 (53). Money and Banking.

Prerequisite: Economics 201-202. First semester. Three credits. Plumley.

354 (54). Public Utilities. The development, organization, characteristics and legal status of public service enterprises.

Prerequisite: Economics 201-202. Second semester. Three credits. Brittan.

356 (56). Insurance.

Prerequisite: Economics 201-202, Business 241. Second semester. Two credits. (Offered in even-numbered years.) Plumley.

357 (92). ADVANCED ECONOMIC THEORY.

Prerequisite: Economics 201-202. First semester. Three credits. Brittan.

Theory of international 358 (58). International Trade. trade. Tariffs and tariff history.

Prerequisite: Economics 201-202. Second semester. Two credits.

Inwood.

361 (61). 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 (62). Transportation. The growth and development of transportation in the United States with emphasis on bases of rate structures and regulation.

Prerequisite: Economies 201-202, Business 241. Second semester.

Two credits. (Offered in odd-numbered years.) Plumley.

363 (63). ECONOMIC HISTORY OF EUROPE. The economic background of national and international development during ancient, medieval and modern times.

First semester. Two credits. Inwood.

364 (64). 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.

373 (73). Business Cycles.

Prerequisite: Economics 201-202. First semester. Three credits. Plumley.

492 (91). HISTORY OF ECONOMIC THEORY.

Prerequisite: Economics 201-202. Second semester. Three credits. Brittan.

### Business

111-112 (11-12). 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 cach semester.

215-216 (15-16). 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 each semester.

221-222 (21-22). 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.

241 (41). Fundamentals of Business Organization. An introductory survey of problems and methods of business administration.

Prerequisite: Sophomore standing. Either semester. Three credits. Inwood.

243-244 (43-44). 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. Chadwick.

247 (47). 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 (51). Administration of Business. Various types of business organization and the handling of administrative problems arising therein.

For commercial education majors only. Either semester. Three cred-

its. Inwood.

353 (53). 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 (55-56). Advanced Accounting. Advanced theory of accounts and its application. Selected problems and readings.

Prerequisite: Business 243-244. Three credits each semester. Chadwick.

363 (63). Real Estate. Principles of real property ownership and real estate practice. Property management, subdividing and developing, zoning and its effects.

(Offered in odd-numbered First semester. Two credits. Inwood.

years.)

365 (65). Administration of Finance. Principles and problems of financing business enterprises.

Prerequisite: Business 241. First semester. Three credits. Plumley.

Internal organization 366 (66). INDUSTRIAL MANAGEMENT. and control of different forms of business enterprise.

Prerequisite: Business 241. Second semester. Three credits. Inwood.

367 (67). Personnel Management. Selection, placement, and efficiency of personnel. Employer-employee relationships.

Prerequisite: Business 241. First semester. Two credits. Brittan.

368 (68). Marketing. A study of distribution methods and costs together with advertising and sales promotion methods.

Prerequisite: Economics 201-202. Second semester. Three credits.

Inwood.

370 (70). Investments. Selection, appraisal, and shifting of Prerequisite: Business 241. Second semester. Two credits. Plumley. capital investments.

371 (71). Merchandising. Operation of retail stores treating specifically store organization, lay-out, and principles of salesmanship and customer service.

First semester. Two credits.

372 (72). 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 (Psychology 381 campaigns; social control of advertising. recommended.)

Second semester. Two credits.

374 (74). 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 (85). Cost Accounting. A comprehensive study of all elements of manufacturing cost accounting.

Prerequisite: Business 243-244. Three credits each semester. Palmer.

388 (86). FEDERAL TAX ACCOUNTING. Study of the history of the Federal income tax; Federal revenue Acts and their interpretation. Actual preparation of individual, partnership and corporation income tax returns, important Treasury Department decisions on income tax problems.

Prerequisite: Business 243-244. Second semester. Two credits.

Palmer.

492 (92). AUDITING. The principles and practice of auditing. Practice problems.

Prerequisite: Business 243-244. Second semester. Three credits.

Palmer.

## Sociology

102 (2). Social Problems. The major problems of modern social life and their remedies.

Second semester. Three credits. Brittan,

201 (1). Principles of Sociology. The fundamentals of social processes and evolution.

Prerequisite: Sophomore standing. First semester. Three credits. Webster.

350 (50). Rural Sociology. Rural life and problems with special reference to Nevada conditions. Second semester. Two credits. Webster.

357 (57). Cultural Anthropology. Primitive cultures as a basis for modern social organization. First semester. Two credits. Webster.

370 (70). Social Control. The social processes providing control of behavior

Second semester. Three credits. Webster.

- 371 (71). Social Organization. The structure, forms, functions and development of major social groups and institutions. First semester. Three credits. Webster.
- 379 (79). RACE PROBLEMS. The social significance of race and racial minorities.

First semester. Two credits. Webster.

- 380 (80). THE FAMILY. Forms and functions of the family as a social institution. Emphasis on present trends. Second semester. Two credits. Webster.
- 381 (81). POVERTY AND DEPENDENCY. Causes of economic inefficiency. Methods used in relief.

Prerequisite: Economics 201-202. First semester. Two credits.

(Offered in odd-numbered years.) Webster.

383 (83). POPULATION. The social and economic significance of numbers and quality of population. Migration.

First semester. Two credits. (Offered in even-numbered years.)

Webster.

384 (84). Social Security. Theory and development of modern provisions for economic security. Emphasis upon old age and unemployment in the United States.

Second semester. Two credits. Prerequisite: Economics 201-202. Seco (Offered in odd-numbered years.) Webster.

386 (86). METHODS IN SOCIAL WORK. Principles and methods in applied sociology.

Prerequisite: Sociology 102 and 201. Second semester. Two credits.

Bagley.

490 (90). Advanced Social Theory. Emphasis upon modern schools of social thought.

Prerequisite: Sociology 201. Second semester. Three credits. Web-

ster.

# **EDUCATION**

Professors Traner (Chairman of Department), Brown; Associate Professor Ruebsam; Assistant Professor Puffinbarger (on leave); Mr. Dowler, Miss Huber, Mr. Jensen, Miss Klaus.

It is recommended that students present a major and a minor in departments other than Education to meet the Arts and Science requirements; students may submit Education as a second major or minor. Only in special cases should Education be used as the only major or minor.

Requirements for a minor in Education: 18 credits in Education, of which at least 6 credits must be in courses numbered 300 or above.

Requirements for a major in Education: 27 credits in Education, approved by the Dean, of which at least 12 must be in courses numbered 300 or above.

# Kindergarten-Primary Education

117 (17). KINDERGARTEN-PRIMARY EDUCATION. Kindergartenprimary education as a unified experience, emphasizing the history, theory and curriculum.

First semester. Three credits. Ruebsam.

120 (28-29). 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 (25A). Observation of Teaching. Observation and discussion of specific classroom work in the kindergarten-primary grades.

First semester. One credit. Ruebsam.

134 (34). 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 (41). 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 (54). Auxiliary Subjects in the Kindergarten-Primary Curriculum. The contribution of arts and erafts, 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 (55). 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 (28-29). 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 Educa-

tion 134. Either semester. Five credits. Ruebsam.

332 (19). 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 (53). 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 (1). 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 (43). 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 (30). 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. Brown.

131 (31). 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. Brown.

133 (3-4). 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 (35). 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 (36). 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.

137 (37). 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.

145 (45-45A). 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. Three credits. Jensen.

149 (21). 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 (49-49A). 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 (46). 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 (24). 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 (43-44). 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 (73-74). 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 credits. Brown.

357 (57). 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 (68). 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

310 (60). 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 (95). 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.

317 (93). School and Community Relations. The interrelations and cooperation of the school, the family, and the community in the educational development of the child.

Second semester. Two credits.

330 (66E). 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 (66c). 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

1948.) Wood.

335 (66b). Teaching High School English. Acceptable material and methods in oral and written composition and in literature

First semester. Two credits.

338 (66d). 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.

339 (66f). 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 (66g). 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 (64a). 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 (90). 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 (45). 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. Three credits. Jensen.

347 (64b). 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 164. (Identical with Physical Edu-

cation 364 for Women.) Two lectures. Two credits.

348 (Journalism 87). 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 majors in English preparing to teach in Nevada high schools.

Two credits. (Alternate years.) Mergen.

349 (65). 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 with a minor in music or its equivalent. Active participation in band, orchestra, or chorus required.

Second semester. (Same as Music 349.) Two credits. Tate.

354-355 (94 a-b). 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 (58). 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 (61-61B). 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 (75-76). Supervised Teaching in the High School. Teaching in grades nine to twelve in major or minor subject of the student. 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, Dowler.

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 (85). 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 (86). 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. Dowler.
- 447 (87): 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 longtime 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. Dowler.

448 (88). 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. Two credits. Huber.

449 (89). 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. Huber.

471 (71). 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. taken in the senior year.

First semester. Three credits. Brown.

482 (82). 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 (6). 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 (53). 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 (70). 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. Two credits. Puffinbarger.

- 367 (67). PSYCHOLOGY OF THE ELEMENTARY SCHOOL SUB-JECTS. 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. Two credits. Puffinbarger.
- 368 (72). 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, Two credits. Puffinbarger.

369 (69). 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. Two credits. Puffinbarger.

## Graduate Courses

501 (199-200). 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 (102). 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 Intended primarily for candidates for the Master's degree. Two credits. Members of the Staff. report of the study.

## ELECTRICAL ENGINEERING

Professors S. G. Palmer, Sanforf (Chairman of Department), Mr. Earl, and Mr. Fair.

231-232-233-234 (31-32). 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 cach semester.

A laboratory fee of \$5 per credit may be required, depending on nature

of project undertaken.

323 (23-24). 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 (51). 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 (52). 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 (53). 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 (54). ALTERNATING CURRENT MACHINERY LABORATORY. This course is normally accompanied or preceded by Electrical Engineering 352.

Second semester. Two credits. Fee \$5.

355 (55). 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. First semester. Two credits.

356 (56). 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 (67). ELECTRICAL ILLUMINATION. A study of the principles and practice of electrical illumination.

Prerequisite: College physics. First semester. Two credits.

368 (57). Introduction to Electronics. Theory and application of vacuum and gas-filled tubes and circuits.

Prerequisite: Physics 204. Second semester. Lectures and labora-

tory. Three credits. Fee \$5.

375 (75). 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 (61). Advanced Alternating Current Machinery. A continuation of Electrical Engineering 352.

Prerequisite: Electrical Engineering 352. First semester. Three

credits

462 (62). Electrical Design. Study of the fundamental principles underlying the design of electrical equipment. Lectures and computations.

Prerequisite: Electrical Engineering 461. Second semester. Three

credits.

463 (63). 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 (64). Advanced Alternating Current Laboratory. A continuation of Electrical Engineering 463.

Second semester. Three credits. Fee \$5.

466 (66). 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 symetrical components and stability is included.

Prerequisite: Electrical Engineering 461. Second semester. Three

credits.

469 (58). 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 355, Electrical Engineering 368. Second semester. Lectures and laboratory. Two credits. Fee \$5.

481 (81-83). 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 (82-84). 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.

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 Laird, Griffin; Associate Professors Eldridge, Hume; Assistant Professor Gorrell (Chairman of Department); Mrs. Brown, Mr. Butterworth (on leave), Mr. Edwards, Mr. Hall, Mrs. Hume, Mrs. Maya Miller, Mr. Milton Miller, Miss Price, Mr. Semenza, Mrs. Spencer, Mrs. Sullivan, Miss Swan, Mr. Vinocour, Mrs. Wilkie, Mrs. Winston.

# Literature, Language, and Composition

Requirements for majors and minors in English: Students will normally be expected to elect courses in accordance with at least one of five approved options; many students are able to fill the requirements for more than one option. In general, upper-division courses suitable for fulfilling major requirements have numbers from 401 to 499. For a major, the requirements in these options are as follows:

1. LIBERAL ARTS—English 101-102 (6 credits), English 281 and 291 (6 credits), English 465, English 451, English 493 (9 credits), and at least two courses selected from the following: English 441, English 475, English 481, English 471, English 461, English 485 (6 credits). If so many lish 493 may be waived.

- 2. High School Teaching—English 101-102 (6 credits), English 281 and 291 (6 credits), English 441, English 465, English 451, and English 493 (12 credits), and courses in speech (3 credits). Students expecting to teach in high school should prepare themselves, through formal courses or through extra curricular activities, to direct work in forensics, dramatics and journalism. Unless they have adequate journalistic background to supervise a school paper, they will be expected to elect Journalism 387. Students who have difficulty with grammar should elect English 385.
- 3. Speech—English 101-102 (6 credits), English 111-112 (4 credits), English 441 and English 465 (6 credits), and 11 credits in speech selected with the consent of the department from courses numbered 300 or above.
- 4. LITERARY WRITING—English 101-102 (6 credits), English 281 and 291 (6 credits), English 465, 337, 485, 451 (12 credits), and English 305-306, 405-406 (2-8 credits). The student should note that admission to this option presumes admission to English 305-306, with the prerequisites for that course.
- 5. Pre-Legal Study—English 101-102 (6 credits), English 111-112 or English 217-218 (4 credits), English 201 (2 credits), English 281 (3 credits), and 13 credits in courses numbered above 300, of which at least 6 credits should be selected from English 315-316, English 317-318, English 415-416, and English 419-420, and 6 credits should be selected from English 441, English 465, English 337, and English 485.

For a minor in English the requirements are as follows: For options 1 and 2, English 101-102 (6 credits), English 281 and 291 (6 credits), and two courses numbered above 300 and designated as acceptable for a major (6 credits); for option 3, English 101-102, English 111-112 (4 credits), and 8 credits chosen from courses numbered above 300 and approved as appropriate for the individual's interest; for option 4, English 101-102 (6 credits), English 281 and 291 (6 credits), and 6 credits in courses numbered above 300, including English 305-306; for option 5, English 101-102 (6 credits), English 111 or 217 (2 credits). English 281 (3 credits), and 7 credits in courses numbered above 300 and approved by the department.

Note—When circumstances warrant, the student may be allowed to substitute for English 111-112 other courses in speech of equal credit numbered above 300. When the first semester of a course in literature numbered above 300 is required for the major or minor, the second semester may in certain cases be accepted in lieu of the first.

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 (1-2). 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 (41-42). 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 subject 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 (40-40A). Shakespeare for Pleasure. Shakespeare's principal plays read for their social interest and their literary excellence. Not intended for majors in English.

Two credits each semester. Staff.

201-202 (3-4). 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 (33-34). Great Books. Masterpieces from many ages and from all the great literatures read in English for recreation and for general culture.

Three credits each semester. Staff.

247-248 (30-31). 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 (23-24). 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~(44) . Introduction to Language. A study of the nature of language with a sketch of the growth of the American language.

Three credits. Laird.

291 (45). 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 majors and minors in the department, except those electing the speech option. The courses need not be taken in their numbered sequence.

305-306, 405-406 (59-60). Advanced Training in Creative Writing. The course is conducted as a writer's workshop. Required for the major in creative writing.

Prerequisite: The submission of a sample of superior creative work.

Two credits each semester. Staff.

337 (77). The Bible As Literature. The study of representative literary types found in the Old and New Testaments.

One semester. Three credits. Eldridge and Edwards.

345-346 (68-69). 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 (72-73). Modern Drama. Representative English and American dramatists, since 1890.

Two credits each semester. Gorrell.

385 (67). 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 (70-71). AMERICAN LITERATURE. The development of American literature from the beginning to the present.

Three credits each semester. Eldridge and Hume.

451-452 (93-94). 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 (89-90). 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 (75-76). Shakespeare. The reading of Shakespeare's plays and a closer interpretation of his more characteristic dramas.

Three credits each semester. Gorrell.

469 (78). Milton. A study of the representative writings of John Milton.

One semester. Three credits. Hume and Gorrell.

471-472 (87-88). 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. (79-79A). 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 (80-80A). 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 (91-92). 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 (95). 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 majoring in the department. (See requirements for majors in English.)

One semester. Three credits. Laird and Staff.

496-497, 498-499 (97-98, 99-100). INDEPENDENT STUDY. Open to juniors and seniors majoring or minoring in English upon consultation with the head of the department. Hours to be arranged with individual students.

One credit a semester. Staff.

501-502 (101-102). SEMINAR.

Open only to graduate students. Hours to be arranged with individual students. One to three credits each semester. Staff.

591-592 (200). Thesis Course.

Open only to candidates for a master's degree. Staff.

## Speech

111-112 (11-12). Public Speaking. The principles of effective public speaking studied and practiced through organized student discussions of contemporary controversial problems. Speech form and speech content are equally emphasized.

Two credits each semester. Staff.

217-218 (16-17). Argumentation and Debate. The study of the principles of argumentation with the preparation of briefs, the participation in class debates, and the presentation of argumentative talks. The study of thinking, and the expressions of thoughtful opinions on current topics are stressed.

Two credits each semester. Staff.

221-222 (21-22). Interpretation. The oral interpretation of the forms of literature with special attention directed to diction. Two credits each semester. Staff.

311-312 (61-62). Advanced Speech Composition. Study for effective speech composition, based upon application of rhetorical and psychological principles. Open to limited number of students with consent of instructor.

Two credits each semester. Staff.

315-316 (55-56). 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 (57-58). 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. The course may be repeated for credit.

Maximum of eight credits may be earned. Two credits each semester.

321-322 (53-54). 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.

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.

413. (83). Parliamentary Law and Practice. Study and practice of the parliamentary rules and procedure governing deliberative assemblies.

Two credits.

415-416 (63-64). Oratory and Society. Examination of background, methods, and ideals of modern oratory. Particular attention to the outstanding figures of each period, with study of historical settings and significance of each orator.

Prerequisite: English 111-112 or 217-218. Two credits each semester.

417 (84). Modern Debate Practice and Problems. Study and discussion of the various types of modern debates, with particular attention to the problems of directors and coaches. Bibliographies and collateral readings in textbooks and speech journals. Conduct of debates and methods of judging.

Two credits.

419-420 (65-66). 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.

421-422 (81-82). PLAY PRODUCTION. The reading, study and production of representative Shakespearean and modern plays, with lectures, readings, and reports. Practice work is offered in all the aspects of play production: management, lighting, scenery, make-up, directing, acting, etc. The course aims to aid the prospective high school teacher.

Three credits each semester. This course may be repeated for credit

as 421A, 421B, etc.

## FOREIGN LANGUAGES

Professors Chappelle (Chairman of Department), Murgotten; Associate Professors Gottardi, Melz; Assistant Professors Kline (on leave), Dandini; Mr. Marsh, Miss Ancho, Mrs. Meredith, Mr. Miller, Mrs. Brown.

Requirements for a minor in French, German, Italian, Latin, and Spanish: With no admission units, courses 101-102 (10 credits), 103-104 (6 credits),\* and 2 additional credits in courses numbered 300 or above; with 2 admission units, courses 103-104 (6 credits), and 6 additional credits in courses numbered 300 or above; with 4 admission units, 6 credits in courses numbered 300 or above.

Requirements for a major in French, German, Italian, Latin, and Spanish: With no admission units, courses 101-102 (10 credits), 103-104 (6 credits),\* and 10 additional credits in courses numbered 300 or above; with 2 admission units, courses 103-104 (6 credits), and 14 additional credits in courses numbered 300 or above; with 4 admission credits, 16 credits in courses numbered 300 or above.

Students intending later to teach foreign languages are urged not to

<sup>\*</sup>German 109-110 may be offered in lieu of German 103-104.

restrict their courses to the minimum requirements for a major or a minor in the particular subjects. All such candidates are to confer with the chairman of the department.

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 359-A).

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 (200). Foreign Language Thesis Course. Open only to candidates for the master's degree.

Six credits.

#### French

101 (1). FIRST YEAR FRENCH. Drill in the essentials of grammar. Elementary composition and conversation.

First semester. Five credits. Staff.

102 (2). 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 (3-4). 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 and Marsh.

351-352 (51-52). 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 (53-54). French Poetry. A study of the French lyric poets from Villon to contemporary writers.

Prerequisite: French 103-104. Two credits each semester. Mur-

gotten.

355-356 (55-56). 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. Chappelle.

357-358 (57-58). General Survey of French Literature. The history of French literature with detailed study of special periods. Assigned outside readings and reports on works read. Prerequisite: French 103-104. Two credits each semester. Chappelle.

359-360 (59-60). Scientific French. Readings from standard French works on science and from recent numbers of French scientific magazines. This course is particularly recommended to premedical students and to those who intend to specialize in any one of the scientific fields.

Prerequisite: French 103-104. Two credits each semester.

369-370 (69-70). 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. Murgot-

ten.

371 (71). CONTEMPORARY FRENCH DRAMA. A study of French plays of the twentieth century.

Prerequisite: French 103-104. First semester. Two credits. Mur-

gotten.

372 (72). 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. Mur-

gotten.

373-374 (73-74). Advanced French Composition and Con-VERSATION. Includes a study of French epistolary style. This course should be taken simultaneously with the second year of junior-senior reading courses in French.

Prerequisite: French 103-104. Two credits each semester.

381-382 (81-82). The Eighteenth Century in French LITERATURE. A study of the works of Montesquieu, Voltaire, Rosseau, etc.

Prerequisite: French 103-104. Two credits each semester. Chappelle.

389-390 (89-90). French Phonetics. A study of pronunciation on the basis of practical phonetics. This course is especially arranged for prospective teachers of French.

Prerequisite: French 103-104. Two credits each semester. Gottardi.

## German

101 (1). First Year German. A systematic study of grammar, elementary composition and conversation. First seemster. Five credits. Staff.

102 (2). 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. Staff.

103-104 (3-4). INTERMEDIATE GERMAN. Reading of German short stories, with exercises in conversation Grammar and composition.

Prerequisite: German 101-102., or two years of high school German. Three credits each semester. Chappelle and Melz.

109-110(9-10). 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. Chappelle and Melz.

351-352 (51-52). 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 (55-56). 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 (57-58). General Survey of German Literature. The history of German literature with detailed study of special periods. Assigned readings and reports on the works read.

Prerequisite: German 103-104. Two credits each semester. Chappelle.

359-360 (59-60). Scientific German. Readings from German scientific works, with special emphasis on chemistry and physics. This course is particularly recommended to premedical students and to those who intend to specialize in any one of the scientific fields.

Prerequisite: German 103-104 or 109-110. Two credits each semester. Chappelle.

369-370 (69-70). GERMAN CLASSICS. Reading and technical study of representative works of Lessing, Schiller, and Goethe.

Prerequisite: German 103-104. Both semesters. Two credits each semester. Chappelle.

371-372 (71-72). 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 Molz

379-380 (79-80). Advanced Composition. A study of German epistolary style, business correspondence, free composition. This course should be taken simultaneously with the junior-senior reading courses.

Prerequisite: German 103-104 or 109-110. Two credits each semester.

#### Italian

101 (1). First-Year Italian. Elementary grammar, composition, and conversation. Reading of modern Italian prose.

First semester. Five credits. Meredith.

102 (2). 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. Meredith.

103-104 (3-4). 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. Gottardi.

351-352 (51-52). The Italian Novel. Rapid reading of masterpieces of modern Italian fiction: Manzoni, Fogazzaro, Verga.

Prerequisite: Italian 103-104. Two credits each semester. Gottardi.

353-354 (53-54). ITALIAN LITERATURE OF THE EIGHTEENTH AND NINETEENTH CENTURIES. Reading of important works of prose and poetry of the period, with a study of literary movements.

Prerequisite: Italian 103-104. Two credits each semester. Gottardi.

355-356 (55-56). Intermediate Composition.

Prerequisite: Italian 103-104. Two credits each semester. Gottardi.

#### Latin

-101 (1). FIRST-YEAR LATIN. Drill in the essentials of Latin grammar. Word study and composition. Roman life and customs.

First semester. Five credits. Murgotten.

102 (2). 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 (3). Cicero. Orations. Study of Roman law and government.

Prerequisite: Latin 102 or two years of high school Latin. First semester. Three credits. Murgotten.

104 (4). Vergil. First six books of the Eneid. Study of classic myths.

Prerequisite: Latin 103 or three years of high school Latin. Second semester. Three credits. Murgotten.

351-352 (51-52). Advanced Latin. Selected readings of Latin prose. History of Latin literature. Composition.

Prerequisite: Latin 164 or four years of high school Latin. Two

credits each semester.

353-354 (53-54). LATIN LYRIC POETRY. Horace and Catullus. Prerequisite: Latin 104 or four years of high school Latin. credits each semester.

## Portuguese

361-362 (61-62). 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 towards a major or a minor 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 (71-72). 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. Chappelle.

## Spanish

101 (1). First-Year Spanish. Drill in the essentials of grammar. Elementary composition and conversation.

First semester. Five credits. Dandini, Ancho.

102 (2). 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. Dandini, Ancho.

103-104 (3-4). 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. Chappelle, Dandini, Gottardi, Mrs. Brown.

Staff.

351-352 (51-52): The Modern Spanish Novel. Rapid reading of masterpieces of Spanish fiction: Galdós; Valdés; Ibáñez; etc.

Prerequisite: Spanish 103-104. Two credits each semester. Melz.

353 (53). Spanish Prose Writers of the Twentieth Century. Readings dealing primarily with the "ensayistas," etc.

Prerequisite: Spanish 103-104. First semester. Two credits.

355-356 (55-56.) Intermediate Spanish Composition and Conversation. This course should be taken with the first-year of junior-senior reading courses in Spanish.

Prerequisite: Spanish 103-104. Two credits each semester. Dandini.

357-358 (57-58). GENERAL SURVEY OF SPANISH LITERATURE. The history of Spanish literature with detailed study of special periods. Assigned outside readings and reports on works read. Prerequisite: Spanish 103-104. Two credits each semester. Gottardi.

367-368 (67-68). 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 (69-70). 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 (71-72). Spanish-American Literature. Prose and poetry.

Prerequisite: Spanish 103-104. Two credits each semester. Melz.

379-380 (79-80). Advanced Spanish Prose Composition and Conversation. This course should be taken simultaneously with the second year of junior-senior reading courses in Spanish.

Prerequisite: Spanish 103-104. Two credits each semester. Melz.

381-382 (81-82). Spanish Classic Drama. Literature of the sixteenth and seventeenth centuries-Lope de Vega; Tirso de Molina, etc.

Prerequisite: Four credits junior-senior work. Two credits each semester.

## GEOGRAPHY

Assistant Professor Thompson.

101 (15). 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. Thompson.

103 (3). 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. Thompson.

109 (9). 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. Thompson.

359 (35). 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. Thompson.

455 (55). 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 semes-

ter. Three credits. Thompson.

### GEOLOGY.

Professor Gianella (Chairman of Department); Associate Professor Wheeler. Assistant Professors Cree, Thompson, JACOBER

Requirements for a minor in geology: Geology 101 (or 110), 102, 211, 212 (10 credits), and 8 additional credits in the department, at least 6 of which must be in courses numbered above 300.

Requirements for a major in geology: Geology 101 (or 110), 102, 212, and 214 (12 credits), and 15 additional credits in the department, at least 12 of which must be in courses numbered above 300.

101 (1). 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 (2). 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. Wheeler. Jacober.

110 (10). 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 (11). 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.

Prerequisite: Chemistry 101, 102 and 242, or the equivalent. First

semester. Two credits. Fee \$2. Cree, Jacober.

212 (12). Blowpipe Analysis. The determination of minerals by blowpipe analysis.

Prerequisite: Chemistry 101, 102, and 242, or the equivalent, and Geology 211. Second semester. Two credits. Fee \$3. Cree, Jacober.

214 (14). 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. Gianella,

Cree, Jacober.

325 (55-56). Advanced Mineralogy. Advanced study of either blowpipe analysis, crystallography, or the determination of minerals by other optical properties.

Prerequisites: Geology 211, 212, and 214. Either semester. One or

two credits. Fee \$2. Gianella, Cree, Jacober.

351 (51). Petrology. Laboratory study of rocks and rockforming 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. Gianella, Cree.

352 (52). 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, Cree.

353 (53). 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. Wheeler.

354 (54). Geologic Reports. Study and practice in the preparation, illustration, and oral presentation of geologic reports.

Prerequisite: Geology 351. Second semester. Two credits. Staff.

360 (60). Economic Geology of the Nonmetals. 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. Wheeler.

370 (70). FIELD GEOLOGY. Instruction in field methods and investigation of geologic features of several areas. tion is provided by the S. Frank Hunt Foundation.

Prerequisite: Geology 211, 212, 214. Both semesters. One credit.

Staff.

382 (82). STRUCTURAL GEOLOGY. A study of the deformation of the earth's crust.

Prerequisite: Junior standing. First semester. Three credits. Jacober.

410 (71). 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.

Wheeler and Cree.

Note-Geology 410 may be substituted for Civil Engineering 258 (summer surveying).

430 (84). Petroleum Geology. Principles of the occurrence and accumulation of petroleum.

Prerequisite: Geology 351. Second semester. Three credits. Cree.

440 (58). Geomorphology. Development and interpretation of the relief features of the earth.

Prerequisite: Geology 101 or 110, Geography 103. Second semester. Three credits. Jacober.

461 (61). Economic Geology of the Metals. 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 recom-

mended). First semester. Three credits. Gianella.

479 (79, 80, 81). 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 479 A, B, etc. Staff.

480 (83). 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. Jacober.

485 (85). SEMINAR. Library work and reports on topics of geologie interest.

Either semester. One credit. May be for credit as 485A, B, etc. Staff.

579 (179, 180). Advanced Geologic Investigation.

Credits and fee to be arranged according to work undertaken. Either semester. Staff.

<sup>599</sup> (199, 200). Thesis.

Either semester. Six to ten credits. Fee to be arranged according to work undertaken. Staff.

#### GERMAN

(See Foreign Languages)

## HISTORY AND POLITICAL SCIENCE

Professor Hicks (Chairman of Department); Associate Professors Smith, Hutcheson, Auchampaugh; Assistant Professor Ulph.

Requirements for a minor in History: History 101-102 (6 credits), History 105-106 (6 credits), and 6 additional credits in History.

Requirements for a major in History: History 101-102 (6 credits), History 105-106 (6 credits), and 15 additional credits in History.

Requirements for a minor in Political Science: Political Science 101-102 (6 credits), Political Science 105-106 (4 credits), and 8 additional credits in Political Science.

Requirements for a major in Political Science: Political Science 101-102 (6 credits), Political Science 105-106 (4 credits), and 17 additional credits in Political Science.

History 341-342, 395, 403-404, 405, 408, and 451-452 may be used to satisfy requirements in either History or Political Science.

Political Science 416 and 427 may be used to satisfy requirements in either Political Science or History.

Political Science 101-102, taken together, satisfy the legal requirements for Political Science 301-302; but students who do not take both 101 and 102 must take both 301 and 302, in order to graduate. Students desiring a better comprehension of the Constitution of the United States and Nevada than can be obtained in 301 and 302, and students desirous of conforming to legal requirements in certain other States, should take 101 and 102.

Any course in History or Political Science is open to students with majors and minors 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 and 302 may not be used to satisfy requirements for a major or minor in Political Science.

## History

101-102 (1-2). UNITED STATES. Colonial times to the present: Social, political and diplomatic.

Three credits each semester. Open to freshmen and sophomores. Hicks, Hutcheson, Auchampaugh.

105-106 (5-6). 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, Auchampaugh.

303 (67). 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. Auchampaugh.

305 (85). United States, 1776-1865. The Revolution; constitution-making; problems of peace; War of 1812; domestic problems; slavery and State rights; the Oregon question; Texas; the Mexican War; the Civil War.

First Semester. Three credits. Auchampaugh.

306 (94). United States Since 1865. Reconstruction; economic and diplomatic affairs; the Far West; the tariff; war with Spain; the World War and its aftermath.

Second semester. Three credits. Auchampaugh.

312 (56). 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. Auchampaugh.

314 (58). 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 (65-66). NEVADA HISTORY. First-half ends at State-hood 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 (89A-90A). 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. Auchampaugh.

371-372 (71-72). Ancient Civilization. Origins of Western civilization in the Near East, Greece, and Rome: art, culture, society, and politics.

Two credits each semester. Hutcheson.

376 (76). Medieval History, 400-1500. Civilization of medieval Europe: culture, the Church, and law. Background of modern nations.

Second semester. Three credits.

393-394 (63-64). 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 (87). 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.

403-404 (77A-78A). IMPERIALISM AND WORLD PEACE. A study of European colonial expansion and the problem of maintaining peace.

Two credits each semester. Ulph.

405 (69). 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 (70). Europe Since 1914. A detailed analysis of a turbulent era.

Second semester. Three credits. Ulph.

411-412 (79-80). THE FRENCH REVOLUTION AND NAPOLEON. An intensive study of the great epoch extending from 1789 to 1815.

Two credits each semester. Uph.

421-422 (83-84). HISTORY OF RUSSIA. Foundations of the Russian state and society. The imperial and revolutionary eras. Three credits each semester. Ulph.

431-432 (97-98). Modern Germany and Austria. The problem and achievement of unification: Germany as a world factor. Three credits each semester. Auchampaugh.

441-442 (59-60). 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 (81-82). The Far East. Domestic and international relations of China and Japan from the earliest times to the present.

Two credits each semester. Hicks.

498-499 (99-100). Undergraduate Seminar. Credits arranged. Staff.

501-502 (99-100). GRADUATE SEMINAR. Credits arranged. Staff.

591-592 (199-200). Graduate Thesis. Either semester. Credits arranged. Staff.

## Political Science

101-102 (3-4). 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.

Open to freshmen and sophomores. Three credits each semester.

Smith, Auchampaugh.

105-106 (5-6). 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 cach semester,

Smith, Hutcheson.

301-302 (79-80). Constitutions of the United States and Nevada. Origins, history, and essentials of these constitutions—with emphasis upon devotion to American institutions and ideals. United States Constitution the first semester: Nevada Constitution the second semester.

One credit cach semester. Hicks, Smith, Auchampaugh, Ulph.

357 (57). 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 (59). 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 (64). 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 (68). 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 (76). 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 (77). 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 (83-84). 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

498-499 (99-100). Undergraduate Seminar. Credits arranged. Staff.

501-502 (99-100). GRADUATE SEMINAR. Credits arranged. Staff.

599 (199-200). GRADUATE THESIS. Either semester. Credits arranged. Smith.

### Home Economics

Professor Swift (Chairman of Department); Associate Professor Pope; Assistant Professor Marsh; Miss Carroll.

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.

New requirements for the general major in home economics are avail-

able in the office of the Department.

A minor in Home Economics constitutes 18 hours taken from the following: Open to men and women:

Freshmen Foods, 131-132 Clothing, 115-116-117 Orientation, 103

Junior Cookery for Men, 357 Tailoring, 366 Nutrition, 334 Family Clothing Problem, 367 Costume, 368 Sophomore Nutrition and Health, 233 Care of Family Health, 253 Food and Nutrition, 250 Art and Science of Meal Service, 255

Senior Home Decoration, 487 Home Management, 486 Child Development, 475-476 Household Equipment, 488 Experimental Foods, 494

103 (3). 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 (15). 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 (16). 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 (18). 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 (31). 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. Stuff.

132 (32). 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 (50). 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 (53). 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 (55). 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 \$8. Swift.

334 (34). NUTRITION. Designed for majors in nutrition and any other student who meets the prerequisites of organic chemistry and physiology.

Offered in alternate years with 346. Three lectures. Three credits.

Marsh.

357 (57). 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~(66). Tailoring and Advanced Clothing. A study of

toiloring techniques, construction of coats, suits, and dresses. Advanced problems in construction.

Second semester. One lecture. Two workshops. Three credits. Fee

\$4. Pope.

367 (67). THE FAMILY CLOTHING PROBLEMS. Study of wardrobe needs of the family and problems relating to purchase, care and construction of the family clothing. To buy or sew: remodeling.

First semester. One lecture. Two workshops. Three credits. Fee \$4.

Pope.

Application of color and design to 368 (68). Costuming. creative costuming. Helpful to physical education majors, 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 (34). DIET IN DISEASE. A study of the adaptation of diet in disease in which nutrition is a primary concern. tinued application of material in 334. For nutrition major 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 (75). 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 chilaren are arranged.

Prerequisite: Junior or senior standing, or consent of the instructor. First semester. Three lectures. Three credits. Carroll.

476 (76). 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 credits. Carroll.

483-485 (83-84). Special Problems in Foods. Field work for seniors or graduates.

Hours to be arranged. Three credits. Swift.

486 (86). 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 (87). 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 (88). HOUSEHOLD EQUIPMENT. Selection of household equipment. Points of construction, operation, cost, care and repair.

Second semester. One lecture, One laboratory. Two Offered 1950.

credits. Fee \$2. Pope.

EDUCATION FOR FOODS AND NUTRITION MAJORS. This 491.course meets the requirements of the American Dietetic Associa-

Given alternate years. First semester. Three lectures. Three credits. Swift.

494 (94). Experimental Cookery. Development of experimental methods; application to investigations in cookery. Preparation for independent investigation.

Prerequisites: Home Economics 131-132. Second semester. One lec-

ture. One laboratory. Two credits. Fee \$15. Swift.

495 (95). Special Problems in Clothing. Field work for seniors or graduates.

Second semester. Hours to be arranged. Three credits. Pope.

496 (96). QUANTITY 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 (98). Institution Organization and Management. study for equipment, furnishings, floor plans, cost control, personnel, labor, and sanitation laws governing institutions.

Offered 1950. Second semester. Three lectures.

Marsh

499 (99). 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

Professor Lehenbauer, Chairman of Department.

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 credits. Lehenbauer.

201 (1). 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. Lehenbauer.

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: Horticulutre 102 or 201. Second semester. Two cred-

its. Lehenbauer.

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.

Lehenbauer.

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. Lehenbauer.

356 (2). Vegetable Growing. The fundamental principles involved in the growing of vegetable plants.

Prerequisite: Horticulture 102 or 201. Second semester. Three cred-

its. Lebenbauer.

- 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. Lehenbauer.

492. Special Problems. Same as 491 or a continuation thereof.

Second semester. One to three credits. Lehenbauer.

## Italian

(See Foreign Languages)

## **IOURNALISM**

Professor Higginbotham (Chairman of Department); Mr. Janulis, Mrs. Mergen; cooperating newspapermen.

Requirements for a minor in journalism: Journalism 101-102 (6 credits), Journalism 221-222 (6 credits), Journalism 351-352 (4 credits), and 2 additional credits in journalism courses numbered 300 or above.

Requirements for a major in journalism: Journalism 101-102 (6 credits), Journalism 221-222 (6 credits), Journalism 351-352 (4 credits), and Journalism 353 (3 credits), Journalism 372 (1 credit), Journalism 379, the newspaper and society (2 credits), Journalism 481-482 (2 credits), and 3 additional credits in journalism in courses numbered 300 or above.

To complete the major in journalism or the Course in Journalism, a

student must earn an average of at least two grade points in his courses in journalism.

In their sophomore, junior, and senior years, students specializing in journalism are advised to include Journalism 231-232, 361-362, etc., in their schedules whenever possible in order to build up a background of the news of each year.

Courses in the social sciences and in literature should supplement

those in journalism.

For an explanation of the four-year professional Course in Journalism leading to the degree Bachelor of Arts in Journalism, see page 143.

101-102 (1-2). Interpreting the Day's News. Study of the news of the day and the function of the newspaper in American life. Open to all students. Course may be started with Journalism 101 or Journalism 102.

Two or three credits each semester. Staff.

221-222 (21-22). 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. Mergen and Janulis.

231-232, 361-362, 491-492 (31-32, 61-62, 91-92). ADVANCED INTERPRETATION OF THE DAY'S NEWS. Study and interpretation upon an advanced level of the news of the day.

Prerequisite: Journalism 101-102. Both semesters. One or two cred-

its each semester. Janulis.

351-352 (51-52). News Editing. Copy reading, rewriting, headline writing, news evaluation, the mechanics of publishing, and make-up, accompanied by study of the principles which govern these and similar duties of the newspaper copy editor.

Prerequisite: Journalism 221-222 and the consent of the instructor.

Two or three credits each semester. Mergen and Janulis.

353 (53). 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 (54). Advanced Reporting. Study of the background and materials of the news of public affairs, together with the actual reporting of such news from representative sources in Reno and Carson City.

Prerequisite: Journalism 221-222. Three credits. (Alternate years.)

Higginbotham.

356-357 (56-57). 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.) Higginbotham and Mergen.

365-366 (65-66). Community Newspaper Management. Principles of journalism peculiar to the country weekly and small city daily, especially in Nevada. Editorial, circulation, and advertising management.

Prerequisite: Journalism 221-222. Two credits each semester. (Alter-

nate years.) Higginbotham and Janulis.

367 (67). 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.) Hig-

ginbotham.

368 (68). 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.) Mergen.

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 Coure in Journalism

or the major in journalism. Two or three credits. Staff.

372 (72). 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. Higgin-

botham.

375 (75). 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.)

Higginbotham.

379 (79). The Newspaper 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.

481-482 (81-82). JOURNALISM INTERNSHIP. Reporting and

copy reading as members of the staffs of the Nevada State Journal, the Reno Evening Gazette, the United Press Associations, the Associated Press, and the Carson City Nevada Appeal; advertising work with Wilson Advertising Agency, the States 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 majors in journalism. One, two, or three credits each semester.

Higginbotham and cooperators in journalism.

Students will be assigned to internships in fields for which their courses in journalism have prepared them.

386 (86). 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.) Janulis.

387 (87). 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 majors in English preparing to teach in Nevada high schools.

Not acceptable toward the major in journalism or the four-year

Course in Journalism. Two credits. (Alternate years.) Mergen.

393-394, 395-396 (93-94, 95-96). Independent Study. Aspects

of journalism not covered by other courses.

Open only to juniors and seniors in the Course in Journalism or majoring in journalism who have attained an average grade of B in all their work. Hours to be arranged with individual students. One credit cach semester. Higginbotham.

#### LATIN

(See Foreign Languages.)

## LIBRARY SCIENCE

Professor Hill (Director of Libraries).

335 (35). 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 Professor Martin; Mr. Davis,

Mr. Weihe; Mr. Bradshaw, Mrs. Carter, Mr. Houser, Mr. Thompson, Mrs. Van Dyke, Mrs. Williams.

If two courses bear consecutive numbers and have a common descrip-

tion, the first is prerequisite to the second.

Requirements for a minor in mathematics: Mathematics 102 (2 credits), 110 (3 credits), 140 (4 credits), 231-232 (6 credits), or their equivalent, and 4 additional credits in the department in courses numbered above 300.

Requirements for a major in mathematics: Mathematics 102 (2 credits), 110 (3 credits), 140 (4 credits), 231-232 (6 credits), or their equivalent, and 13 additional credits in the department in courses numbered above 300.

Mathematics 151-152 (10 credits) may be substituted for Mathematics 102, 110, and 140 and Mathematics 251-252 may be substituted for Mathe-

matics 231-232 in the major and minor requirements.

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.

Courses numbered above 300 are open to students who have completed calculus. Graduate credit may be allowed in courses numbered above

350.

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 (5). 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 (13). Plane Trigonometry. A study of the trigonometric functions, identities, and the solution of triangles.

Prerequisite: Plane geometry and one year of high school algebra.

Each semester. Two credits. Staff.

110 (11). College Algebra. Progressions binomial theorem, logarithms, inequalities, systems of linear and quadratic equations, determinants, elementary theory of equations, permutation and combinations.

Prerequisite: Mathematics 101 or 1½ years of high school algebra. Each semester. Three credits. Staff.

140 (14). Analytic Geometry. An analytical treatment of the properties of the straight line, circle, parabola, ellipse, and hyperbola. Polar coordinates, the transformation of coordinates,

and the general second-degree equation in two variables will be

Prerequisite: Mathematics 110, 102. Second semseter. Three credits. Martin.

151-152 (15-16). Elementary Mathematical Analysis. 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 (35). 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 (18). 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.

220 (20). Mathematical Statistics. A mathematical study of frequency distributions, averages, dispersion, probable error, correlation, graphical methods and other related topics, with application to problems in the social and natural sciences.

Prerequisite: Mathematics 110. Second semester. Three credits.

231-232 (23-24). 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. Weihe.

241-242 (25-26). CALCULUS. A unified course in differential and integral calculus, with special emphasis upon the applica-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. Tomp-

son.

251-252 (27-28). 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 (45-46). Survey. Assigned reading and reports on topics of mathematical interest not covered in the usual courses. 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 (51). 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 (66). Teaching of Mathematics. See Education 331.

341-342 (55-56). Analytic Mechanics for Engineers. Work in the resolution of forces, moments of inertia, laws of motion, friction, dynamics of machinery, work and energy, and impulse. Special emphasis is given to practical problems.

Prerequisite: Mathematics 241, 242; Physics 203. Mathematics 341. first semester, three credits. Mathematics 342, second semester, two

credits

351-352 (85-86). DIFFERENTIAL EQUATIONS. A study of ordinary and partial differential equations of the first and second orders with special attention to geometrical and physical applications

Mathematics 351, first semester, two credits. Mathematics 352, second semester, two credits.

371 (57). Determinants and the Theory of Equations. The study of determinants and their applications. The theory of the quadratic, cubic, quartic, and the general algebraic equation. Methods of finding approximate values of the roots of equations. First semester. Three credits. Beesley.

391-392 (59-60). College Geometry. A study of advanced geometrical topics such as the Nine Point Circle, Ceva's Theorem, etc., using the methods of proof of elementary geometry. Recommended for students preparing to teach mathematics in high

Mathematics 391, first semester, two credits. Mathematics 392, second semester, two credits. Alternates with Mathematics 401-402. Bees-

395 (70). 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 (73-74). PROJECTIVE GEOMETRY. A synthetic development of the more fundamental projective properties of conic sections, including also an elementary treatment of involutions, anharmonic ratios, and the principle of duality.

Mathematics 401, first semester, two credits. Mathematics 402, second semester, two credits. Alternates with Mathematics 391-392. Not to be

given 1948-1949.

425 (87). Advanced Calculus. A more rigorous study of the differential and integral calculus, with extensive applications to geometrical and physical problems.

First 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.

501-502 (105-106). THEORY OF FUNCTIONS OF THE REAL AND COMPLEX VARIABLE. The first semester deals with real numbers, point sets in metric space, real functions, and properties of continuity, semicontinuity, discontinuity, defferentiability and integrability of functions. The second deals with complex numbers, integral theorems, power series, singularities, Riemann Surfaces and conformal mapping.

Mathematics 501, first semester, three credits. Mathematics 502, sec-

ond semester, three credits. Beesley.

550 (149). 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 (199-200). 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. Schumacher, Mr. Ryan, Mr. Van Tassel.

105-106 (5-6). 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.

credits each semester.

351 (51). Kinematics. The study of the laws of motion as they affect the design of machine elements. Forms for gear teeth and cams. Analysis of the motion of machine parts.

Prerequisites: Physics 203 and 204, Mathematics 251 and 252, First

semester. Three credits.

353 (53). 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 (55). Thermodynamics. Principles of engineering thermodynamics; properties of gases; thermodynamic processes of gasses; 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 (56). 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 (57). Machine Design. The study of the application of the laws of velocity, force, and strength of materials to the design of machinery. Tooth and belt gearing, shafts, journals, bearings, cylinders, springs, bolts, keys, etc.

Prerequisite: Civil Engineering 372. First semester. Three credits.

458 (58). MACHINE DESIGN PROBLEM. A design problem in the field of engines, machinery, or heat power, that is approved by the teacher, is to be analyzed. Each student is to choose his own problem.

Prerequisite: Mechanical Engineering 457. Second semester. Three

credits.

464-465 (64-65). 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 combustion 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(71). 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 (72). 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 (76). MECHANICAL VIBRATIONS. Theory of vibrations with applications to problems involving bending and torsion, dynamic balancing, vibration damping, the dynamical vibration absorber, elastic mounting of machines, critical speeds of rotating shafts, etc. Lectures, laboratory demonstrations, and experiments and problems.

Mathematics 351 and Mechanical Engineering 457. Prerequisites:

Second semester. Three credits.

477 (77). Internal Combustion Engines. A study of modern internal combustion engines of the stationary, automotive and aeronautic types, including spark ignition and compression Thermodynamics for engine analysis, fuels, mixture requirements, combustion, detonation and its effects, efficiencies, engine performance, etc., are included.

Prerequisite: Mechanical Engineering 356. First semester. Three

credits.

478 (78). Aerodynamics. The theory of flight, air flow, and principles of design of aircraft structures are covered. requirement of the aircraft power plant are studied, and data covering modern engines presented.

Prerequisite: Civil Engineering 367. First or second semester. Three

credits.

479 (79). HEAT TRANSFER. Review of fundamentals of the transfer of thermal energy and radiant energy. Design problems in heat transfer, and application of technical design data to specific problems.

Prerequisite: Mechanical Engineering 356. Second semester. Three

credits.

An original design or an investigation intended to give the student a knowledge of research methods in

engineering. This course is elective for seniors and graduates at the discretion of the instructors in the department.

Second semester. One to three credits. Laboratory fee of \$2.50 per

credit may be required.

#### Mechanic Arts

203 (3). Machine Shop. A basic course in machine work following a definite plan throughout the semester, includes instruction in bench work, lathe, shaper, drill and milling machine

Either semester. Two credits. Fee \$5 per credit.

205 (5). 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 (7). Machine Shop. An advanced course in general machine work for students wishing to develop projects in con-

nection 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 (20). Welding and Heat Treating. Shop practice in oxyacetylene and electric are welding, stress relieving, annealing, and heat treating.

First semester. One credit. Fee \$7:50.

226 (26). Engineering Materials and Processes Labora-TORY. 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 (4). Engineering Metallurgy. Lectures and recitations for engineering students on the properties and uses of industrial metals and alloys, metallurgical processes and apparatus, and an introductory course on the metallurgy of iron and steel.

Prerequisite: Chemistry 102 and 242 and Physics 151 or 203. Second

semester. Two credits. Smyth.

206 (6). 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 eredits. Smyth.

341 (51). FIRE ASSAYING. Lectures, recitations, and laboratory work in assaying. Methods of assaying, systems of weights used, calculations and problems, equipment of assay laboratories, sampling, chemistry of assaying. The assay of gold and silver ores of the simpler types followed by the assay of difficult ores and metallurgical products.

Prerequisite: Geology 212, Chemistry 232. First semester. Lectures, one hour; laboratory, three periods. Four credits. Fee \$15. Smyth. 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 (56). Metallography. This course is designed to cover the methods of preparation and microscopic examination of specimens of some of the common metals and alloys, illustrating the microstructure of pure metals and alloys, the effect of heat treatment in tempering and annealing, cooling curves, the detection of the presence of flaws and defects in metals, a study of welds, and the effects of strain and mechanical treatment.

Prerequisite: Metallurgy 204. second semester, Lecture, one hour;

laboratory, two periods. Three credits. Fee \$2.50. Palmer.

358 (58). Ferrous Metallurgy. Lectures and recitations on the principles and practice of producing iron and steel, the properties and uses of the ferrous metals, the iron-carbon diagram, mechanical and heat treatment of steel, and alloy steels.

Prerequisite: Metallurgy 204. First semester. Two credits. Smyth.

366 (66). 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.

461 (61). Pyro-Metallurgy Nonferrous Metals. Lectures and recitations on the smelting or fire methods of extracting the common metals from their ores and refining processes for these metals by fire methods. The principal metals covered will be copper, lead, zinc, mercury and nickel.

Prerequisite: Geology 211 and Metallurgy 204 and 341. First semes-

ter. Three credits. Palmer.

462 (62). METALLURGY OF THE MINOR AND RARE METALS. Lectures and recitations on the metallurgy of minor and rare metals Antimony, arsenic, aluminum, bisincluding the following: muth, molybdenum, platinum, tin, and tungsten.

Prerequisite: Metallurgy 461 and 471. Second semester. One credit.

Palmer.

368 (68). 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. Lab-

oratory, two periods. Two credits. Fee \$5. Palmer and Smyth.

471 (71). Hydro-Metallurgy. Lectures, recitations, and laboratory, exercises on the various hydro-metallurgical methods used in the recovery and refining of the metals gold, silver, copper, lead, and zinc.

Prerequisites: Metallurgy 341 and 366; Chemistry 232. First semester. Lectures, two hours; laboratory, one period. Three credits. Fee

\$5. Palmer.

472 (72). 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 (76). Problems and Seminars. This course covers common technical and economic problems related to the design, operation, and management of metallurgical plants, and a discussion of articles upon metallurgical subjects.

Open only to students after they have completed metallurgical subjects to the second semester of the senior year. Second semester. Two

credits. Palmer or Smyth.

479, 480, 481 (79, 80, 81). 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

Professor Parker (Chairman of Department); Assistant Professors Cator, McElroy; M/Sgt. Elliott; M/Sgt. Johnson; M/Sgt. Stull; M/Sgt. Stoneback; 1st Sgt. Grady; T/Sgt. Carrick; S/Sgt. Garnett.

Requirements for a minor in military science: Military 101-102 (2 credits), 201-202 (2 credits), and 14 additional credits in the department, including two for a six-week summer camp.

These descriptions supplement the announcement of the Department of Military Science and Tactics on page 75 of this Catalogue. The nature and scope of the courses are prescribed by the Department of the Army and the Department of the Air Force.

101-102 (1-2). FIRST YEAR BASIC MILITARY. Two hours drill and two hours conference per week. Required of all first-year men not specifically exempted.

Military 101 is not a prerequisite for Military 102. Military 101, first semester. One credit. Military 102, second semester. One credit. Fee

\$20.

201-202 (3-4). SECOND YEAR BASIC MILITARY. Two hours drill and two hours conference per week. Required of all second-year men not specifically exempted.

Military 201 is not a prerequisite for Military 202. Military 201, first semester. One credit. Military 202, second semester. One credit. Fee

\$20.

301-302 (51-52). FIRST YEAR ADVANCED INFANTRY. Two hours drill and three 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 limitations 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 semes-

ter. Three credits.

303 (53A). INFANTRY CAMP. All who take Advanced Infantry training are required to attend a six-week summer camp immediately following Military 302.

The place and dates of attendance will be announced at a later date.

Prerequisites: Military 301-302.

401-402 (53-54). 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.

311-312 (61-62). First Year Advanced Air Force. Two hours drill and three 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 PMS&T, subject to limitations of annual quotas fixed by the Department of the Air Force.

Prerequisites: Military 101, 102, 201, and 202, or their equivalent. Initial enrollments at midyear are not accepted. Military 311, first semester. Three credits. Military 312, second semester. Three credits.

313 (63A). AIR FORCE CAMP. All who take Advanced Air Force training are required to attend a 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.

411-412 (63-64). Second Year Advanced Air Force. 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.

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, or 202, may substitute band training for the two weekly drill periods for either one of the two years of basic training provided prior approval is obtained from the PMS&T. 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 (5). 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 (1). 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 (51). 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 (52). 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 (61). 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 (72). 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 (74). 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 (79, 80, 81). 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 Take

Requirements for a minor in music: Music 101 and 102 (2 credits), Music 203, 204, 303 or 304 (at least 4 credits), Music 301 and 302 (6 credits) and 6 additional credits in the department.

101-102 (1-2). 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 (3-4). ELEMENTARY INSTRUMENTS. This course is set up primarily for students who are registered as Education or Music majors or minors. 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 an 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 (7-8). ELEMENTARY PIANO. Fundamentals of key-board technique and experience in playing simple accompaniments and materials for classroom use. Restricted to approved education students and music minors. Class instruction.

One credit each semester. Post.

111-112 (11-12). 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 (13-14). ELEMENTARY VOICE. Fundamentals of good tone production, practical technique in reading parts and the interpretation of songs. Restricted to approved education students and music minors

One credit each semester. Post.

115-116 (15-16). 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 (17-18). 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 for description of requirements and credits for men assigned to band as a substitute for military.

One credit each semester. Tate.

149 (5). 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. Tuco credits. Tate.

203 (9). 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

Open to all students and visitors. No previous experience necessary. First semester. Two credits. Tate.

204 (10). 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 eredits. Tate.

301-302 (50-51). 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 (57). Russian Music. A survey of the music of Glinka, Rimsky-Korsakoff and the Russian "Five," Tschaikowsky, Seriabin, 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 (58). 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.

University Chamber Music Ensemble. For 305-306. description see Music 105-106.

One credit each semester. Tate.

311-312 (54-55). University Singers Club. For description see Music 111-112.

One credit each semester. Post.

315-316 (59-60). Reno Civic Orchestra. For description see Music 115-116.

One credit each semester. Tate.

317-318 (63-64). University Band. For description see Music 117-118.

One credit each semester. Tate.

349 (65). 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 with a minor in music or its equivalent. Active participation in band, orchestra, or chorus required. Same as Education 349.

Second semester. Two credits. Tate.

401-402 (52-53. 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

Professor Thompson (Chairman of Department); Assistant Professor Price.

Requirements for a minor in philosophy: Psychology 201 (3 credits), philosophy 107 or 108 (3 credits), and 221 (3 credits), and 9 credits in the department in courses numbered 300 or above.

Requirements for a major in philosophy: Psychology 201 (3 credits), philosophy 107 or 108 (3 credits), and 221 (3 credits), and 15 credits in the department in courses numbered 300 or above.

The following courses are recommended, but not required, for majors and minors in philosophy: Psychology 361 and 401, Economics 201 and 202, Sociology 381, and Political Science 101 and 102.

101 (1). Introduction to Philosophy. A brief study of the problems of philosophy with the solutions suggested by the various schools. Designed both for the student who wishes a perspective for further work in philosophy, and for the student who desires a general knowledge of the scope and methods of philosophy.

Open to freshmen. Either semester. Three credits. Price.

107 (7). DEDUCTIVE LOGIC. Terms, definition, division, syllogism and fallacies. Text, lecture and exercises.

Open to freshmen. First semester. Three credits.

108 (8). 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.

221 (21). ETHICAL THEORIES. A study of the leading theories of moral principles and ideals. Among the topics discussed will be the concept of the good, duty, egoism, altruism, freedom, responsibility, and the doctrine of virtues.

Open to sophomores. First semester. Three credits.

- 222 (22). Applied Ethics. The application of ethical theory to typical problems of institutional life, property, and the family. Open to sophomores. Second semester. Three credits.
- 351 (51). HISTORY OF ANCIENT PHILOSOPHY. A study of Greek and Roman philosophy, and of Medieval philosophy to the decline of scholasticism.

Prerequisite: One course in philosophy. First semester. Two or three credits according to the work done. Price.

252 (52). HISTORY OF MODERN PHILOSOPHY. A study of the problems and concepts of philosophy from Descartes to the present time

Prerequisite: One course in philosophy. Second semester. Two or three credits according to the work done. Graduate credit given with consent of the instructor.

353 (53). Philosophical Tendencies of the Present. review and criticism of the main tendencies of philosophical thought with reference to present social problems.

Prerequisite: One course in philosophy. First semester. three credits. Graduate credit given with consent of instructor. Price.

354 (54). Philosophical Tendencies of the Present. Special attention is given to absolutism, pluralism, pragmatism, and the philosophy of James.

Prerequisite: One course in philosophy. Second semester. three credits. Graduate credit given with consent of instructor. Price.

455 (55). Aesthetics. A philosophic analysis and appraisal of the aesthetic experience to determine the meanings 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. Grad-

uate credit given with consent of the instructor. Price.

461 (61). Introduction to Religion. A study of the forms and psychological aspects of religious experience with special reference to typical historic religions.

Prerequisite: One course in philosophy and psychology 201. First semester. Two to three credits according to work done. Graduate credit given with consent of the instructor.

462 (62). 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 consent of the instructor.

482 (82). Philisophy of Political Problems. The metaphysical basis of the State, the State and its citizens, the State and other States, sovereignty, freedom, democracy, facism and communism, are among the problems discussed.

Prerequisite: Junior standing and one course in philosophy. Second semester. Two credits. Graduate credit given with consent of the

instructor.

484 (84). Metaphysics. A constructive study of the problems of being, unity, order, and individuality, with practical applications of the theory developed.

Prerequisite: Two courses in philosophy and psychology 201. Second semester. Three credits. Graduate credit given with consent of the

instructor. Price.

499 (100). Research Course. The thesis may be selected in any field of philosophy. For seniors only.

Prerequisite: The equivalent of a minor in philosophy. Either semester. Two credits. Graduate credit given with consent of the instructor.

Price.

## PHYSICAL EDUCATION

#### Men

Professor Martie (Chairman of Department); Associate Professor Scranton; Mr. Broten.

Requirements for a minor in physical education: Courses 101-102 (1 credit), 201-202 (1 credit), 110 (1 credit), 210 (3 credits), 301 (1 credit), 340 (2 credits), and 8 credits in the department in courses numbered above 300.

Requirements for a major in physical education: Courses 101-102 (1 credit), 201-202 (1 credit), 110 (1 credit), 210 (3 credits), 301 (1 credit), 310 (2 credits), 340 (2 credits), 410 (2 credits), 441 (2 credits), 452 (3 credits), and 8 additional credits in the department in courses numbered above 300. Also Physics 101 and 102 (4 credits), Zoology 101 (4 credits), Psychology 201 (3 credits), and English 111 and 112 (4 credits).

101 (1). 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 (2). Developmental Exercises. Continuation of course 101 with addition of calisthenics and light apparatus.

Second semester. One-half credit. Scranton.

201 (3). 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 (4). 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 (5-8). Special Corrective Exercises. Corrective work for all whose physical examination show they are unfitted to take the required physical education.

One-half credit cach 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. Locke.

210 (53). 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 (9). Apparatus and Tumbling. Advanced exercises for increasing skills on the mats, bars, horse, and springboard.

First semester. One credit. Broten.

310 (60). 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 (51). 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.

Timate knowledge of the game.

First semester. One lecture and one laboratory per week. Two

credits. Scranton.

321 (52). 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 (54). 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 (57). 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 (10). 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 (62). 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 (64). 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 (55-65). 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 (58). See Education 341.

450 (56). 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 (59-61). Physical Diagnosis and Corrective Gymnas-TICS. Methods of detecting defects in structural and organic development and function. Exercises for correction of these defects.

First semester. Three credits. Martie.

452 (63). 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.

## PHYSICAL EDUCATION

#### Women

Professor Sameth (Chairman of Department); Assistant Professor Russell; Miss Van Gaasbeek, Miss Price.

Physical Education courses required for a minor: 163(3), 164(2), 263, 264, 265 (3), 266 or 267 (1), 269 (3), 364 (2), and 4 credits in this department numbered 300 or above, also Zoology 101 and 211.

Physical Education courses required for a major: 163 (3), 164 (2), 263, 264, 265 (3), 266 or 267 (1), 269 (3), 363 (2), 364 (2), 440 (3), 452 (2), 464(3), and 3 credits in this department numbered 300 or above, also Zoology 101, 211, and 346.

Recommended Electives:

- (a) Courses which meet University requirements toward graduation: Chemistry 101, 242, Economics 107 or 110, Physics 101-102. Psychology 121, 201, 241, 361, Zoology 322, 355.
- (b) Others: Art 105, Education 183, 317, English 111-112, Home Economics 334, 368, 475-476, Music 101-102.

Students may direct their major toward specialization in dance or in sports. For allied majors and minors, consult chairman of department concerned.

161 (1). Freshman Orientation (required). Team sports, individual and dual activities, and rhythmic activities.

Three periods. One credit.

162 (2). Freshman Orientation (required). Continuation of 161.

Three periods. One credit.

163 (29). First-Aid and Health in the Home, School and Community (formerly 265).

a-First-Aid. A Red Cross certificate will be issued if the student's grade is C or better.

Two lectures and one laboratory. Six weeks. One credit.

b-Nutrition. To be given by a person especially trained in this field. Two lectures and one laboratory. Six weeks. One credit.

e-Health in the Home, School, and Community. Two lectures and one laboratory. Six weeks. One credit.

164 (30). Basic Theory of Physical Education. A history of physical education, with emphasis on current trends; also the contribution of physical education to related vocational fields, such as recreation, physiotherapy, etc.

Two lectures. Two credits.

261.(3). Sophomore Activities (required). The student may select any activity offered. Activities usually offered when facilities are available are bowling; conditioning; dance (folk, modern, social); golf; individual and dual sports (archery, badminton, etc.); remedial work; roller skating; swimming and life saving: and team sports.

Prerequisite: Physical Education 161-162. Two periods. One-half

credit.

262 (4). Sophomore Activities (required). Continuation of

Two periods. One-half credit.

263, 264, 265 (21, 22, 23). Techniques for Majors and Minors. Practical work with sections of Physical Education 161 and 162.

Two laboratories and one lecture. Three semesters. toward graduation instead of Physical Education 161, 162, 261, 262, if a student gives evidence of ability to do advanced work. One credit each semester.

266 (11). Folk Dances, Games, and Creative Activities. For kindergarten, first and second grades.

Two periods. One credit. Not offered in 1948-1949.

267 (12). Folk Dances, Games, and Creative Activities. For Intermediate and Secondary Grades.

Two periods. One credit. Not offered in 1948-1949.

268. Modern Dance. (Intermediate). Modern dance, with emphasis on composition; also practical experience in production.

Prerequisite: Beginning dance, selected as a sophomore activity.

Two periods per week. One credit.

269 (35). Kinesiology. Function of the neuromuscular system in its relation to posture, movement, and deviations from normal, with specific reference to the back, the abdomen, and the feet. There will be opportunity to apply this knowledge to the needs of the child, his growth, development, and physical activities.

Prerequisite: Zoology 211. First semester. Two lectures and one laboratory. Three credits.

361, 362, 461, 462 (25, 26, 27, 28). Activities. For those who wish to improve their skills in any activity offered.

One-half credit each semester.

- 263 (31). Modern Dance. (Advanced.) See 268.
- 364 (40). Recreation in the Home, School, and Community. The application of nature study, story telling, party games, and various crafts to leisure time activities for home, school, camp, and community.

Two laboratories. Two credits. Fee \$2.

365 (57). 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. (This course and Education 347 are identical.)

Prerequisite: Physical Education 164. Two lectures. Two credits.

463 (50). 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 268. Three lectures. Three credits.

464 (71). THEORY AND PRACTICE OF DIRECTING INDIVIDUAL AND DUAL SPORTS. Including methods of teaching and officiating.

Prerequisite: Practical experience in tennis, archery, badminton, and swimming. Three lectures. Three credits.

465 (72). THEORY AND PRACTICE OF TEAM SPORTS. Including teaching methods, skill tests, and officiating of basketball, softball, volleyball, and field sports.

Prerequisite: Practical experience in at least four team sports.

Three lectures. Three credits.

501-502 (101-102). PROBLEMS IN HEALTH AND PHYSICAL EDUCATION.

Where work is done in the field of health education, the student must have had at least the equivalent of a minor in Zoology. Two to five credits.

RECREATIONAL ACTIVITIES. Any student may participate in activities sponsored by the Women's Recreation Association or in activity classes offered by the department that are not filled by students registered for University credit.

Open to all who can pass a satisfactory medical examination.

## **PHYSICS**

Professor Leifson (Chairman of Department); Associate Professor Blair; Assistant Professor Hansen; Mr. Inman, Miss Ferguson.

Requirements for a minor in physics: Physics 203-204 (8 credits), 205-206 (4 credits), and 6 additional credits in the department in courses numbered 300 or above.

Requirements for a major in physics: A. Physics 203-204 (8 credits).

205-206 (4 credits), and 15 additional credits in the department in courses numbered 300 or above.

B. Other requirements: General Chemistry, Calculus (to be taken concurrently with Physics 203-204), Mechanics, Differential Equations, and German. Students who are not primarily interested in preparing themselves for a career in Physics may, with the consent of the chairman of the department, substitute other courses for those listed under B. Suggested outline of courses for the first two years:

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First Year		Second Year	
Course Military 101-102 Physical Edu. 101-102 English 101-102 Mathematics 110 Mathematics 102 Mathematics 140 Chemistry 101-102 Social Science	3 3 3 2 3 4 2	Course Military 201-202 Physical Edu. 201-20 Mathematics 231-232 Physics 203-204 Physics 205-206 German 101-102	$egin{array}{cccccccccccccccccccccccccccccccccccc$
	$15\frac{1}{2}$ $15\frac{1}{2}$		$15\frac{1}{2}$ $15\frac{1}{2}$

101-102 (9-10). Introductory Physics. A nonmathematical course designed to give the student an understanding of some of the basic principles of physics.

Two credits each semester.

107 (7). 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 (15-16). 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 (17-18). 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 (19). 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.

151-152 (1a-2a). General Physics. A course in general physics primarily for students in arts and science, medicine and agriculture. Lectures and recitations with experimental demonstrations and problem work.

Prerequisite: Plane geometry. A knowledge of trigonometry is desir-

able. Three eredits each semester.

153-154 (1b-2b). 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 desir-

able. One credit each semester. Fee \$3.

203-204 (3-4). General Physics for Engineers. Mechanics and heat, sound and light, and electricity and magnetism. Lectures and recitations are fully illustrated by experimental demonstrations at the lecture table and by problems.

Prerequisites: Plane, solid, and analytic geometry, and trigonometry.

Four credits each semester.

205-206 (5-6). Physical Measurements. Experimental work of distinctly quantitative character is done in mechanics and heat, sound and light, and electricity and magnetism. The methods selected involve fundamental physical principles, and illustrate their most important applications.

Prerequisites: Plane, solid, and analytic geometry, and trigonometry.

One or two credits each semester. Fee \$1.50 per credit hour.

357-358 (57-58). ELECTRICAL MEASUREMENTS. Precise measurements of current electromotive force and power, with both alternating and direct current. Calibration of instruments, determination of resistance, capacity, mutual inductance, and self-inductance. Hysteresis. Photometry.

Prerequisites: General physics, differential and integral calculus.

Two credits each semester. Fee \$3.

359-360 (59-60). 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.

LIGHT AND PHYSICAL OPTICS. 361-362 (61-62). 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 (63). Physical Optics. Laboratory exercises in connection with course 361-362.

Two credits. Fee \$3. Graduate credit given with the consent of the instructor.

365-366 (65-66). 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. Grad-

nate credit given with the consent of the instructor.

368 (68). Spectroscopy. Theory and method of production, measurement, examination, and identification of spectra. 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.

A laboratory course of 375-376 (75-76). Glassblowing. instruction in methods of making simple glass apparatus.

One credit. Fee \$6,

377-378 (77-78). THERMIONIC VACUUM TUBES. A laboratory course of selected problems involving the determination of constants of vacuum tubes and vacuum tube circuits. each week will be devoted to discussion and reports.

Prerequisites: General Physics, differential and integral Calculus. Two credits each semester. Fee \$3. Graduate credit given with consent

of instructor.

401-402 (51-52). 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 (71-72). 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 (73-74). 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 instructor.

493-494 (103-104). Thesis Work. And all special laboratory work not in the courses announced above.

Either semester. Credits to be arranged. Fee \$1.50 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**

Professors Young (Chairman of Department), IRWIN; Mrs. WRIGHT.

Requirements for a minor in psychology: Psychology 201 (3 credits), 231 (2 credits), 361 (3 credits), 401 (3 credits), and 7 additional credits in the department. Students majoring in economics or business administration may substitute Psychology 381, 411, 382, or 391 for Psychology 231.

Requirements for a major in psychology: Psychology 201 (3 credits), 415 (2 205 (2 credits), 361 (3 credits), 441 (3 credits), 411 (3 credits), 405 (2 credits), 408 (2 credits), plus 6 hours, 2 of which shall credits), 401 (3 credits), 408 (2 credits), plus 6 hours, 2 of which shall be numbered above 300.

Recommended elective courses: It is recommended that students majoring in psychology elect courses also in philosophy, biology and majoring in psychology elect courses also in philosophy, biology and sociology. Students who expect to use psychology professionally will sociology. Students who expect to use psychology professionally will find it almost impossible to do so without training in statistics.

Courses particularly recommended are Philosophy 101, Introduction to Philosophy; Philosophy 180, Inductive Logic; Mathematics 220, Elementary Statistics; Economics 361; Statistical Methods; Sociology 201, Principals of Sociology; Sociology 102, Social Problems; Zoology 350, Genetics; Zoology 355, Evolution; and Zoology 364, Embryology. Students who expect to work toward a Ph.D. degree after graduation should develop a reading knowledge of French and German.

121 (2). 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, Wright.

201 (5). General Psychology. An introductory course dealing with forms and laws of human behavior and consciousness. Open to freshmen who have passed with a satisfactory grade A high school course in general psychology, or who rank with the highest fifth in their mental test score.

Prerequisite to all other courses in the department except Psychology

121. Either semester. Three credits. Young, Irwin, Wright.

205 (14). Applied Psychology. A general course in the applications of psychology: psychology of vocational guidance, personal efficiency, scientific management, social work, propaganda and public opinion, law, medicine, athletics, business, art.

Prerequisite: Psychology 201. Second semester. Two credits. Irwin.

221 (6). Educational Psychology. A consideration of the applications of psychology to educational problems.

Prerequisite: Psychology 201. Second semester. Three credits.

Irwin.

231 (10). PSYCHOLOGY OF ADOLESCENCE. An intensive study of the characteristics dominant in the adolescent, with special emphasis upon applications to the work of the high school teacher.

Prerequisite: Psychology 201. Second semester. Two credits. Young.

241 (40). Mental Hygiene. A consideration of the principles of psychology in their relationship to mental health and efficiency.

Prerequisite: Psychology 201. Either semester. Three credits. Young.

361 (51). Social Psychology. A study of the applications of psychology to the social relations of the individual and the group life of society. Interaction of individual and social factors in the formation of personality, leadership, propaganda, audiences, communities, nations, crowds, amusements.

Prerequisite: Psychology 201, First semester. Three credits. Irwin.

362 (52). 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 (65). CRIMINAL AND LEGAL PSYCHOLOGY. The individual and social factors of crime and legal relationships, with special emphasis on juvenile delinquency. Problems of the lawyer, educator, and social 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 (70). Marriage, Homemaking, and Divorce. A presentation of the psychological principles involved in these three types of social adjustment.

Prerequisite: Psychology 201. Second semester. Two credits. Young.

381 (57). Psychology of Advertising. An intensive study of the psychological principles basic to effective advertising. Emphasis will be placed on 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. Alternate years.

starting 1942-1943. Two credits.

382 (61). 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.

Alternate years.

starting 1943-1944. Two credits. Irwin

391 (64) 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.

Prerequisites Psychology 201. Second semester. Alternate years,

starting 1945-1946. Two credits.

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401 (62). Experimental Psychology. A laboratory course in the application of scientific methods to the study of mental Processes. Lectures, assigned readings, and laboratory.

Prerequisite: Psychology 201. Either semester. Three credits.

Young.

405 (53). Psychology of Personality. A consideration of the nature, development and evaluation of personality.

Prerequisite: Psychology 201. First semester. Two credits. Young.

408 (63). Systematic Psychology. A study of the historical background of psychology and of the various schools of psychological thought.

Prerequisite: Psychology 201. First semester. Two credits. Young.

411 (59). 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.

415 (60). Comparative Psychology. The genetic history of consciousness and behavior patterns in animals, savages and civilized human beings.

Prerequisite: Psychology 201. Second semester. Two credits. Young.

441 (55). Abnormal Psychology. A study of the abnormal mind, actiology of mental disorders, neuroses and psychoses, with some attention to therapeutic procedures.

Prerequisites Psychology 201. First semester. Three credits. Young.

499 (101). RESEARCH IN PSYCHOLOGY. The thesis subject may be chosen from any field of psychology in which the student has had at least one advanced course.

For graduate students and seniors. Either semester. Two credits. Staff.

501. MASTER'S THESIS. Either semester. Young, Irwin.

Sociology (See Economics, Business, and Sociology)

Spanish (See Foreign Languages)

SPEECH (See English)

Zoology (See Biology)

# SUMMER SESSIONS OF UNIVERSITY

FIRST, TERM June 12 through July 16, 1948 ... and the state of the

SECOND TERM
July 17 through August 20, 1948

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 par-

ticular subject not offered in the regular sessions.

Specific courses are designed for high school teachers, elementary teachers, and teachers of departmental work. All 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

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that fifteen University lecture periods of fifty minutes each, together with two hours of out-of-class preparation for each class, carn 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 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 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.) I.L.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 Sommers, 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.

RAY K. PETERSEN, Horticulturist.

J. E. Church, Ph.D., Chief in Meteorology.

CARL FLGES, JR., M.S., Assistant in Meteorolgy.

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.

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

For 1947-1948 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. 1946—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 26—Hatch Fund. Feeding and Finishing Range Ewes and Lambs. 1920-Continuous. Project Leader, C. E. Fleming, assisted by Walter Neilson. In cooperation with Bureau of Plant Industry, U. S. D. A., Newlands Field Station, Fallon, Nevada.
- 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.

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- Project 55—Station Sales Fund. Weed Control by Plant Competition. 1937-Continuous. Project Leader, C. E. Fleming, assisted by C. A. Brennen. In cooperation with the Nevada Agricultural Extension Service and the Bureau of Plant Industry, U. S. D. A., Newlands Field Station, Fallon, Nevada.
- 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. 1947—Continuous. Project Leader, Mark A. Shipley, assisted by Henry Johnson and M. R. Miller.

#### METEOROLOGY-

Project 57—Purnell Fund. Snow Surveying and Runoff Forecasting,

Development and Applications. 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, assisted by Departments of
  Range Management, Farm Development, and Veterinary Science. In cooperation with the U. S. Grazing
  Service.

#### 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.

DE STOP

#### FARM DEVELOPMENT-

- Project 30—Purnell Fund. Farm Accounts and Land Utilization.

  1941-Continuous. Project Leader, F. B. Headley. In cooperation with the Nevada Agricultural Extension Service.
- 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 Marginalc. 1944-continuous. Project Leader, Dr. Edward Records, assisted by Dr. L. R. Vawter.
- Project 64—Adams Fund. Immunization Against Liver Fluke Infestation. 1946-Continuous. Project Leader, Dr. Edward Records, assisted by Dr. L. R. Vawter and C. E. Fleming.
- 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, H. G. Mason, assisted by F. M. Willhite and
F. B. Headley. In cooperation with U. S. Bureau of
Agricultural Economics and U. S. D. A.

#### RESEARCH AND MARKETING ACT-

- Project 69—Research and Marketing Act. 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 Act. 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 Act. 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 Agri-

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 Forester.

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, 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.

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.

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 sample 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. TRENGOVE, 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 divisional field offices.

#### STAFF

J. B. Zadra, Supervising Engineer.
Andrew C. Rice, Ph.D., Chemist.
Clyde E. Arrington, M.S., Analyst.
Charles L. Hill, M.S., Chemist.
Howard L. Heinan, Chemist
Raymond S. Lambert, Chemical Analyst.
A. L. Engel, Metallurgist.
Harry F. McCray, Chief Clerk.
Theresa V. Caprio, Clerk

United States Geological Survey, Geophysical Section, C. H. Sandberg, Geophysicist in Charge.

# Record For 1947-1948

## RECIPIENTS OF SCHOLARSHIPS AND HONORS

#### 1946-1947

The JEWETT W. ADAMS SCHOLARSHIPS of \$100 each

Franklin Gardner Frances Kennedy

John G. Roscoe Wallace W. Schultz Katherine Sterling Rose Mary Welch

Harriet M. Lee Edward C. Reed

The Armanko Office Supply Scholarships. An award of \$100 each

in Chemistry......Lois Hitchens in Physics.....Robert Barto

The Josephine Beam Scholarships of \$250 to Reno or Sparks students; \$400 to a student not residing in Reno or Sparks:

> Patricia M. DeWalt Robert J. Hempfling Myrna Ivy

Marnie Miller Anna Marie Picchi Robert Schumaker

The Horace P. Boardman Scholarship in Civil Engineering, \$100. James Morris

The Frank O. Broili Scholarship in Electrical Engineering, \$100. James Chester

Wallace Green

The Reno Business and Professional Women's Club Scholarship. An award of \$50. Abe Kaplan

The Arzo E. Cheney Scholarship in English, \$125. George Bennett

The CHARLES ELMER CLOUGH SCHOLARSHIPS in Engineering, \$150. Rondell Shaw Charles R. Breese

The Daughters of the American Revolution Scholarship, \$50, Lois Shaver

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.

Zina Coe Virginia Cole Jeanne Forson Creed Gene Donaldson Josephine Eather Bert Hildebrand Pat Ireland

Marjorie Menu Nora Morris Barbara Olesen Joyce Percy Henry Stewart Kristian Tonning

Nona Lee Tuttle

Ernest Wilson

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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.

Gordon Lea Haves Thomas D. Bowman Beverly L. Brown Hans Raymond Jepsen

Edwin Juinger Mary Lou Brunton

Irving Crawford Shirley Macauley

The Godwin Scholarship in Music, \$50. Richard Pursel

The Grand Army of the Republic Scholarship, \$50. Moray Black

The HERD AND SHORT SCHOLARSHIP, \$100. Herman Adams

The Mrs. Carl Otto Herz Scholarship in Electrical Engineering, \$50. Dan Rice

The Carrie Brooks Layman Memorial Scholarship, \$200. Dorothy Thomas

The WILLIAM S. LUNSFORD SCHOLARSHIP in Journalism. \$100. Paul Weaver

The Honorable William O'Hara Martin and Louise Stadtmuller MARTIN SCHOLARSHIP in History and Political Science, \$50.

Helen Hackett

The Rose Sigler Mathews Scholarships, \$100.

Norma Jean Carruth John L. Chamberlin

Charles E. Gever Albert E. Richardson

The Nevada Federation of Music Scholarship, \$50. Constance Burkholder

The Emporium of Music Scholarship, \$100. Barney Childs

The Grand Lodge of the Independent Order of Odd Fellows SCHOLARSHIPS, \$75.

Francis Escobar

Lyman Schwartz

The Premedical-Prenursing Scholarship, \$100.

Herbert Walter

The Regents' Scholarships, \$50.

James Morris

Maclin B. Summers

Edward G. Reed

Ernest Wilson

Bonnie Yturbide

The Rotary Club of Reno Scholarship, \$100. Norma Moody

The Sears Roebuck Agriculture Foundation Scholarship, \$200. Michael Galli

The SEMENZA SCHOLARSHIP in Economics, Business and Sociology, \$100. John A. Patti

The RAYMOND SPENCER SCHOLARSHIP in Electrical Engineering, \$150. Harry J. Kaul

The Mary Elizabeth Talbot Memorial Scholarship in Mathematics, \$300.

Philip Whitmer

The RITA HOPE WINER MEMORIAL SCHOLARSHIP, \$50. Elaine Van Meter

The Associated Women Students' Scholarship, \$25. Elinore McCray

#### SPECIAL PRIZES AND AWARDS

The American Association of University Women Honorary Membership Awards.

Helen Brania

Dace Ricketts

Virginia Olesen

The GINSBURG JEWELRY COMPANY AWARD of a fine watch.

Bonnie Yturbide

GOVERNOR'S MEDAL FOR MILITARY PROFICIENCY.

GORDON Lea Hayes

The KLUTE FOREIGN LANGUAGES PRIZES, \$50.

Marilou Ferguson Adele Marsh Rose Marie Nannini Martha Schultz

The French Medal.

Rose Marie Nannini

The Scholarship Key of Alpha Iota Chapter of Phi Alpha Theta.

Wilburta Flavin

The Henry Albert Senior Public Service Prizes for Scholarship, \$37.50.

Rose Marie Nannini

Hans Wolfe

Elected to PIII KAPPA PIII.

Carol Ruth Anderson Patricia Ireland James Borge Mrs. Effie McQueen Zina Coe Barbara Olesen Virginia Cole Jane Perkins Angeline Constantinidou Dorothy Thomas Gene William Donaldson Patricia Usserv Jack Ryan Fulton Carol Wager Bert Hildebrand Ernest Wilson

HONOR ROLL OF THE SENIOR CLASS

John Cantlon Rose Marie Nannini
Merton Domonoski Virginia Olesen
Donald Drown Evelyn Payne
Lyman Earl John Phillips
Marilou Ferguson Harvey Tidball
Alice Hanssen Robert Whittemore

Vaughn Marker Noel Willis

Adele Marsh

HONOR ROLL FOR THE FOUR-YEAR COURSE Wilburta Flavin Adele Marsh

Rose Marie Nannini Virginia Olesen

#### GRADUATES

Diplomas and Degrees were awarded on Commencement Day, June 9, 1947, as follows:

#### MASTER OF SCIENCE

James Patrick Coughlin (Aug. 30, 1946) (Bachelor of Science, University of San Francisco, 1944)

#### BACHELOR OF ARTS

Thomas Frederick Allard \*Marilyn Delphine Amodei Richard Dudley Armstrong John B. Aymar (Jan. 31, 1947) Edward F. Beaupeurt (Jan. 31, 1947) Beverly Nora Bony ‡Robert Bruce Bowen (Aug. 30, 1946) Helen Brania Robert Donald Bruce (Aug. 30, 1946) 44 James Weatherby Coleman, Jr. Rex Garrett Daniels (Aug. 30, 1946) Carl Albert Digino, Jr. 1987 18 6 ‡Rose Marie Nannini 30 8 14 15 02 . . Max Weston Dodge 37 75 361 Mary Honora Donlin (Aug. 30, 1946) Duncan Macdonald Dorsey Marilyn Elizabeth Dugan Floyd Leonard Edsall 120 cm(): (Jan. 31, 1947) Francis Escobar CONTRACTOR OF ‡Marilou Ferguson ‡Wilburta Kathryn Amelia Flavin John M. Hattala THE TO SHOW IN (Jan. 31, 1947) John Charles Hawkins John Francis Heher \*Estella Marie Hicks Anita Margaret Hincelot Mary Lou Hovenden Elinor Ruth Jensen John Miller Jensen (Aug. 30, 1946) Anna May Kemper

Eileen Marjorie Kerr

\*Grace Alice Kincaid Robert Peter Laxalt Pauline Leveille Madeleine Louise Maestretti Gloria Millicent Mapes ‡Adele Mary Marsh Tosca Carolyn Masini Rachel Ann McNeil Addison A. Millard Florene Miller Barbara Ruth Mills Thomas Hugh Montgomery William Joseph Moran (Aug. 30, 1946) Edwin Charles Mulcahy (Jan. 31, 1947) ‡Virginia Lee Olesen Harry Dennis Paille ‡Evelyn Aileen Payne John William Phillips Carol Hartley Riley Ellen Vale Riley A Gloria Dorothy Rosaschi Lyle Anthony Roush (Jan. 31, 1947) Cherak William James A. Schultz Martha A. Schulz Dorothy Katherine Sewell †Helen Catherine Shaw Francis Beatrice Sumner John William Sweatt Harvey Eugene Tidball

James Patrick Tierney

Damon Millard Tranter

\*Ellen M. Turnquist

Frances Rose Ullom

(Jan. 31, 1947)

Esther Golick Vacchina

Bachelor of Arts-Continued

Elizabeth Beatrice Walker

Betty May Waugh

Leslie Harvey Whittemore

\*Robert G. Whittemore, Jr. Virginia Anne Woodbury

(Jan. 31, 1947)

Elizabeth Alice Zang

BACHELOR OF SCIENCE

Shirley Marolyn Campbell

John E. Cantlon

Raylyn Collins Carey

(Jan. 31, 1947)

Jean Mary Clawson John Raymond Gent ‡Alice Hanssen

William John Hughs

Doris Hendrick Mastroianni

Thomas Jarvis Trelease Jane Douglass Willcox

Hans Robert Wolfe

Fredrick Wood, Jr.

BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION

George Morton Dickerson (Aug. 30, 1946)

Arthur L. Rockwell, Jr.

\*Virginia Marianne Wells

NORMAL SCHOOL DIPLOMA

Mary Alta Allum

Rachel Genevieve Bailey

Marjorie Agnes Bieroth

Laura Marjean Campbell

(Aug. 30, 1946)

Rosa Elizabeth Campbell Dorothy L. Delmue

Olive Claire Haviland

Zella Leavitt

BACHELOR OF SCIENCE IN AGRICULTURE

Donald Glen Bagley

James Robert Collins Merton Elzwick Domonoske

Donald D. Drown

William Walker Eccles

Cliff T. Gelmstedt

\*Kenneth Neil Stewart (Jan. 31, 1947)

Leroy Streshley John W. Warren

Noel Owen Willis (Jan. 31, 1947)

Thomas Ramsey Rice

BACHELOR OF SCIENCE IN HOME ECONOMICS

Ruth Mae Armstrong \*Dace J. Ricketts

Carol Elinor Smith (Jan. 31, 1947)

\*Barbara Faye Whipple

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

Walter Jacob Bedel

Robert C. Downer

Leland B. Eckley

Vaughn Marker

James Edward Melarkey

William H. Shewan

Theron Dick Stewart

(Jan. 31, 1947)

Lawernce Alexander Paglia

(Jan. 31, 1947)

Leland Conrad Tucker

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

Joseph Lyman Earl

Francis Neil Fisher

(Aug. 30, 1946)

Stephen Godwin Moore (Jan. 31, 1947)

Ellis Dale Peterson

‡James Woods Teipner, Jr.

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING H. Allen Gallaway George B. Voss, Jr.

BACHELOR OF SCIENCE IN METALLURGICAL ENGINEERING
Arthur August Alles
S. Vernon Wines

BACHELOR OF SCIENCE IN MINING ENGINEERING
Tung S. Fong
Charles E. Johnston
Marshall Dickey Joplin
Royce Aller Hardy, Jr.
(Jan. 31, 1947)
William Irl Lane
Paul D. Hoefling
Robert William Hoyer
(Jan. 31, 1947)
Floyd Troy Wilmoth

1183

网络工业数学

<sup>\*</sup> Receives also Teacher's Diploma of High School Grade. † Receives also Teacher's Diploma of Grammar Grade. ‡ Elected to Phi Kappa Phi.

## ROSTER OF STUDENTS

## Fall and Spring Semesters 1947–1948

## Explanations of Abbreviations

A&S Arts and Science	ρ .		FrFreshman
AgCollege of Agric			SoSophomore
CESchool of Civil I		ing	JrJunior
EESchool of Electrical Engineering			SrSenior
HE School of Home			GrGraduate
MESchool of Mecha			SpSpecial
MM Mackay School			
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1			~~
Name Aalde, Kaare		Classification	
Abalos, Virginia			
Abercrombie, Elaine Helen			
Abercrombie, Fred William			
Abernathy, Frances			
Abry, PhillisAdams, Gary Jay			
Adams, Herman Milo			
Adams, Kay Lee			
Adams, Marian			
Adams, Warren Howard			•
Affleck, Harold Wayne			
Aiazzi, Raymond Guy			
Aldrich, Alexander II., Jr			
Aldrich, Catherine			•
Alexander, Claude			
Allan, Calvin Ellsworth			
Alldredge, Elaine			
Allen, Babette Leinani			
Allen, Charles			
Allen, Robert Rapha			
Almour, Richard Burns	A&S	Fr	June Lake, Calif.
Alzola, Raymond Robert			
Ancho, Mary			
Andersen, William Clive	ME	Sr	Overton
Anderson, Carol Ruth	A&S	Sr	Sparks
Anderson, Chester James	A&S	Fr.	Ogden, Utah
Anderson, Deloy Harold, Jr	A&S	Fr	Ely
Anderson, Donald Stephen	A&S	Fr	Elko
Anderson, Donna		Gr	Reno
Anderson, Dorothy Louise	HE	Fr	Markleeville, Calif.
Anderson, Eugene Neil	A&S	So	Elko
Anderson, Grant Thor		Gr	Fernley
Annand, Patricia	A&S	Fr	Reno
Antoniazzi, Fred James	A&S	So	Tonopah
Arak, Harry	MM	So	W. Hollywood, Calif.
Arant, John Roberts	A&S	Fr.	Reno
Arbon, Edwin Ray	EE	Fr.	Reno

Name	College	Classification	Home Address
Archer, James Farrington			
Arciniega, Edward			
Arenaz, Pablo			
Arentz, Alice Catherine			
Argabright, William Keith			
Armstrong, Blanche Reta			
Arndell, Vivien Louise			
Arenson, David Andrew			
Arnold, Binney Ella			
Ashley, Alfred Wayne			
Ashurst, Donald Odell			
Ast, Robert William			
Asta, Vincent			
Atkins, John T			
Atkinson, James Russell			
Atwood, Jay Dale			
Auchampaugh, Virginia			
Audrain, Charleen Ellen			
Audrain, Dawna Lee			
Audrain, Thornton LeRoy			
Averett, Walter Reed			
Ayala, Constance Lowe			
Bacigalupi, Frank Jack, Jr			
Backus, Norman Lloyd			
Bagley, Donald G			
Baker, Douglas			
Baker, Henry Albert			
Baker, Herbert Curtis			
Baker, Julia Verna			
Baker, Phyllis Claudia			
Baker, Richard			
Baldwin, Wilma Florence			
Ball, Barbara Lee	A&S	E1	Tonorah
Ballard, Virgil Bennett			
Bandoni, Robert Joseph			
Banta, Benjamin Harrison			
Banta, Clifford William			
Banta, Roger Wade			
Barakat, Ruth Louise			
Barbagelata, Alfred A			
Barbash, Jo Ann			
Barbash, Roger Sheldon	A&S	En	Pono
Barbieri, Aurelio Alfred			
Barger, Floyd Joseph			
Barkley, James Robert			
Barnum, Mary Eleanor			
Barrett, Juanita Leona			
Barrios, Alberto Hoeck			
Barsanti, Elio Alfred			
Barta, James Joseph	8 <i>%</i>	FT	.r., Omeago, mu.
Bartl, Charles Peter	8 <i>i</i> ba	FT	. ույօս, Եաև.

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	Name			Home Address
	Barto, Helen Ramona			
	Barto, Robert			
	Bartolomei, Marjorie Lee			
	Barton, Thomas Varley, Jr	ММ	Fr	So. San Francisco
	Bates, Lois Ann			
ì	Batjer, Grace Naomi			
	Batt, Frances Mae	A&S	So	Carlin
	Baty, Gloria Jane	A&S	So	Quincy, Calif.
	Baumann, William Henry			
	Bay, Carole Rosella			
	Beach, Freeman Hutchins	MM	So	. Menlo Park, Calif.
	Beaman, George B	A&S	Fr	Yerington
	Bearss, Charlotte Ruby	A&S	Fr	Reno
	Beasley, Winfield Scott	A&S	Fr	Sullivan, Ind.
Š	Beaupré, Louis John	Ag	Sp	Washington, D. C.
	Beck, Irene Margaret			
1	Becker, Alvin Forman			
15	Beckwith, Carol Ellen			
	Beebe, Sara Elizabeth			
	Beets, Glen Frisco			
	Beko, William Peter			
	Belew, William Morris			
3	Bell, Arthur James			
	Bell, Enfield			
,	Bell, Joanne Helen			
	Bell, Shirley Jeanne	A&S	So	Las Vegas
	Bell, Thomas Graham			
	Belnap, Bruce Earl	EE	So	Sparks
	Benedetto, Alton Francis			
, .	Benedict, Althea Belle	HE	Jr	Babbitt
	Benedict, Carl Stuart	A&S	Fr	San Francisco, Calif.
	Bengochea, Harry P	A&S	So	Winnemucca
	Benna, Bruno			
	Bennett, George Donald			
	Benson, George Howard			
Ċ	Bergeron, Beverly Claire			
1	Bergmann, Virginia Hand			
	Berkley, Shirley Lucile	A&S	Fr.	Sacramento, Calif.
	Bernard, Jack B			
	Bernard, Lowell Collins			
	Berning, Duane Eugene			
i.	Berry, Henry Kingsbury			
	Berry, Joseph Barnes			
	Bertelson, Theodore V	A&S	Fr	Sparks
	Bevandich, Louis	A&S	Fr	Hoguaim, Wash.
	Bevans, Douglas Orville	ME	Sr	Lomita Park, Calif.
	Bianchi, Marino William	A&S	Jr	Fallon
	Bidart, Alice Elizabeth	A&S	So	Winnemucea
	Biglieri, Clyde	A&S	Fr	Reno
	Bills, John Erwin			
	Bingham, LaVonne Arretta.			

Name	College	Classification	Home Address
Birdsall, Wallace Oliver			
Birdzell, Nita Elizabeth			
Bisbee, John Allen			
Black, Berleley Warburton			
Black, Lorne Summers			
Black, Moray Joan			
Blackham, Don			
Blackham, Thomas Jack			
Blair, Edgar Wayne			
Blair, Joan Matcovich			
Blair, Molly			
Blank, Joan Leigh	8 <i>&amp;</i>	Fr	. San Francisco, Calif.
Blaser, Dora	A&S	Fr	Elko
Blount, Richard J			
Boardman, Arthur Maurice	A&S	Jr	Reno
Boese, Robert Paul			
Boettcher, Jerome Ward			
Beggess, Betty Sue			
Boies, Eyer Horace			
Bond, John Crane			
Bondley, George Barnum			
Bondley, Lois Shaver			
Bondurant, Robert Thomas			
Bonham, Charles Anton			
Bonsall, Leo Edward			
Borge, James D.			
Bosler, Edward John			
Bowden, William George, Jr.			
Bowers, Millard Roland			
Bowman, Thomas Don			
Boyd, Dunston Frank			
Boyer, Gordon Norris			
Boyer, Pat Louise			
Boyle, Edward Joseph			
Boyle, Kathryn Elizabeth			
Boyle, Peggy Jane			
Boyle, Mary Jane			
Boyles, Lois May	HE	So	Milwaukee, Wis.
Boynton, John Wesley	ME	So	Winnemucca
Brackett, William Leonadis			
Bradbury, Richard Ernest	EE	Sp	Reno
Bradford, Edward Wayne	A&S	Sr	Reno
Bradley, Mary Alice	A&S	So	Reno
Bradshaw, Charles Kenneth.		Gr	Reno
Bradshaw, James Halbert	A&S	Sr	Reno
Bradshaw, Robert Earl	A&S	Fr	Reno
Brady, Bernard Patrick	ME	Sr	Richmond Hgts., Mo.
Brady, Maurice Hugh	MM	So	Baker, Oregon
Braito, Frederick	A&S	Sr	Reno
Brambila, Robert Mauro, Jr.	A&S	Sr.	Neward, N. J.
Brander, Roger Wayne	A&S	Jr	San Francisco, Calif.
-, ger myme			

Name	College	Classification	Home Address
Braun, George Otto			
Bray, Mark Stanley, Jr	A&S	So	Gardnerville
Breese, Charles Reagan			
Brennan, Carolyn Jean			
Brennan, Kathryn Ann			
Bright, James Jewett			
Bright, Sandra Reaves			
Bright, William Corke, Jr			
Briner, William Stoy			
Brinkerhoff, William Albert.			
Broadbent, Susan			
Brooks, Barry			
Brooks, Dudley Wilder			
Broten, George Arthur			
Brown, Betty Jean			
Brown, Beverly Lorrainne			
Brown, Charley Walter			
Brown, Donald Deane			
Brown, Eleanor Frances			
Brown, Frederick Elden			
Brown, Jack Lee			
Brown, John Webster			
Brown, Kenneth Marion			
Brown, Meryde Grace			
Brown, Nanette	A&S	So	Reno
Brown, Orin Verne	A&S	So	Richmond, Calif.
Brown, Orrin P., Jr			
Brown, Stanley Howard	A&S	So	Reno
Brown, Vance Eugene			
Browne, Howard Edgar, Jr.	A&S	Fr	Reno
Broyles, Stewart Fleming			
Brubaker, Ronald Wayne	MM	So	La Verne, Calif.
Bruch, Harter Ross	CE	Jr	Sacramento, Calif.
Brueckner, Guenther W	A&S	So	Reno
Brummelkamp, John			
Brundy, Richard James	A&S	Sr	Las Vegas
Brunner, Alberta Jean	A&S	Sr	Winnemucca
Brunton, Arthur Frederick	MM	Fr.	McGill
Brunton, George Delbert			
Brunton, Mary Lou	A&S	Fr.	McGill
Brush, William Parshall	A&S	So	Carson City
Brussard, Evelyn Anderson		Gr	Reno
Bruun, Kitty			
Bryant, Beverly May	A&S	So	Las Vegas
Bryant, Robert Stanley	CE	Jr	Los Angeles, Calif.
Buck, William Ellory	A&S	Jr	Boulder City
Buckman, Georgia C			
Bull, Portia			
Bundy, Gus Walter	A&S	Sp	Long Island, N. Y.
Bunker, Owen S			
Burke, Charles A	Ag	Sr	Reno

Name	College	Classification	Home Address
Burke, Robert Alan	CE	Fr	Reno
Burkhalter, Patricia Louise			
Burkholder, Constance Dione			
Burr, Elizabeth Marie			
Burr, Helen Louise			
Butler, Robert William			
Butler, Roberta Eleanor			
Butner, Vaughn Talboe			
Byers, Roger Stancliffe			
Byrd, Clarence Edward	$\Lambda \mathbf{g}$	Sr	Reno
Byrd, Gwenneth Jeanne			
Byrnes, Malcolm Harwood	A&S	So	Crystal Bay
Cahoon, James Lawrence	A&S	Fr	Richmond, Calif.
Cain, John Stuart	MM	Fr.	Bridgeport, Calif.
Calder, Joan			
Calkin, Annabelle Louise			
Callahan, Evelyn Marguerite			
Calvert, Robert Wood	A&S	So	Reno
Calwell, Glenn			
Cammerano, Augustine F			
Campbell, Edgar Richard			
Campbell, John Logan			
Campbell, Robert Elton			
Campbell, Robert Rall			
Campbell, Ross Arnold			
Campbell, Shirley Marolyn			
Campbell, William Eugene	NIE.	Gr	reimey Summarevilla W Va
Candee, Frank Paul			
Canessa, William			
Cann Cooper Dadwa-	UE		oparks
Cann, George Rodney	A.W.D	00,	Kellu 
Cantlon, Loe Francis	A&S	rr,	Sparks
Caprio, Josephine Rose	8&S	80,	
Capurro, Kathleen June	8&A	So	Reno
Cardinalli, Guy Frederick	A&S	Fr	Eureka
Carey, Cecil Paul, Jr.	CE	S0,	Orosi, Calif.
Carlsen, Charles Raymond	OE	80,	Reno
Carlsen, Mary Lue	83.A	Sp	.Reno
Carlson, Charles Tinnas	8&S	E'r	. Walker, Minn.
Carmichael, Patricia Ann	8 <i>.</i>	Sr	Las vegas
Carmody, John Philip	A&S	F'r	.Chicago, III.
Carnel, Norma Grace	83.A	Fr	Reno
Carns, Elizabeth	8&A	So,	DuBois, Pa.
Carolo, Steve John	A&S	Fr	.Reno
Carr, Edwin Clarence	\g	So	Fallon
Carrick, Robert Warren	8 <i>&amp;</i>	Jr	East Ely
Carruth, Norma Jean	83.A.S	So,	Las Vegas
Carson, Thomas C	83A	Fr	National City, Calif.
Carter, Barbara Jean	8 <i>&amp;</i>	Fr	Reno
Carter, Donald Leslie	CE	Fr	.Elko
Carter, John Henry	83.1	Jr	Perry, Iowa

	•		
Name	College	Classification	Home Address
Caruso, Carmel			
Casazza, Ralph Anthony			
Case, Ferne C			
Casella, Peter Joseph, Jr	Ag	Fr	Reno
Caserta, John Alfred	A&S	Jr	Reno
Casey, Jeanne Hill	A&S	So	Yuba City, Calif.
Casey, Robert Dale			
Casey, Virginia June	8 <i>&amp;</i>	So	Los Angeles, Calif.
Catich, Jack George		Gr	Reno
Cavitt, Billie Louise	8&A	Fr	Truckee, Calif.
Cayton, Edith Lucille			
Cedarholm, Joseph Preston	Ag	Fr	Sacramento, Calif.
Cerrita, Marion June	A&S	Fr	Reno
Chamberlin, John Leslie			
Chamberlin, Yvonne	A&S	Fr	France
Chambers, Robert Lee			
Chapin, Lelah Talva			
Chapman, Loring Fredrick			
Chapman, Shirley Mae			
Charles, William Berry	Ag	Fr	Los Angeles, Calif.
Charlesworth, Lois Mae			
Charlton, Earle Perry			
Checci, Albert Louis			
Chesley, Velda Ilene			_
Chester, James Edward			
Chichester, Alice Audry			
Chickese, Ernest Maurice			
Childs, Robert Barney	A&S	So	Menlo Park, Calif.
Chiman, Glen Householder			
Choy, John			
Christensen, Ernest John			
Christensen, Glen Claire			
Christensen, Ingvart, Jr			
Christensen, Roland			
Churchill, Florence Ethel			
Ciardella, Humbert Joseph,			
Ciari, Harold Roy			
Cladianos, Pete Philip			
Clark, George Leonard W			
Clark, Glen Howard			
Clark, Kenneth Marlow			
Clarkson, James Thomas	CE.	So	E Rutherford N I
Clay, Gerald Laverne			
Clayton, Jack	ARC		Pono
Clemens, Thomas Ford		E 1	Iteliu
Clements, Lloyd William			
Cliff, Alice Joyce			
Clifford, Thomas			
Coates, Anita Christinia			
Cobb, Jack LaMar	A&S.		Kichmond, Calli.
Cobia, Lois	8 <i>.</i>	Sr,	Loyalton, Calif.

Name water to the Continue of	College	Classification	Home Address
Cochran, David Leo			
Coe, Charles Frederick			
Coe, Zina Ellen	A&S	Sr	Boulder City
Cole, Virginia	A&S	Sr	Elyan or near the
Coleman, Morris Reynolds	A&S	So	Reno and and
Coli, Bruno Leado	::A&S	So	Verdi
Collett, Robert Drake			
Collins, Benjamin Jere			
Collins, Chester Francis	MM	So	Reno
Collins, Edward Allan	A&S	Fr	Reno
Collins, Jack Cornelius	A&S	Sr	Sparks
Collins, Thomas William	A&S	So	Bishop, Calif.
Colon, Richard Walter	A&S	So	Avenal, Calif.
Colwell, Kenneth Leon			
Conaway, Geneve Lila	:A&S	So	Caliente
Conelly, Frederick E			
Conklin, William Joel			
Conley, Edward Lowell	EE	Fr	Reno
Constantinidou, Angeline	A&S	Sr	Athens, Greece and the
Cook, Lois Luke		Gr	Reno Carrott Carr
Cook, Ruth Fay			
Cook, Woodrow Wilson			
Cooper, Earl William	EE	Fr	Reno
Cooper, Herman Joseph	A&S	So	Sparks
Cooper, Lloyd Eugene	Ag	Fr	Sparks
Cooper, Ruth Delores	A&S	Fr.	Boulder City
Cooper, Ruth Delores	A&S	Fr.	East Ely
Corbett, Silas Treat	CE.	Fr.	Reno
Cordes, Vern Henry	CE	Fr.	Genoa
Corey, James John	A&S	So	Las Vegas
Corley, Robert Martin. Fig.	A&S	Fr	Los Alamitos, Cal.
Corporon, Everett Eugene	A&S	Fr	Reno
Correll, Archalee			
Cotter, Richard A., Jr.			
Coughlin, Robert John			
Coughlin, Walter Edward			
Cox, Don Knowlton			
Cox, Nilda Lorraine			
Crabb, David Bowman K.			
Craig, Robert Russell	1909	Gr Section	Reno
Cram, Marianne	188	Fr	Lac Verse
Crandall, Dorene	A & C	Tr 31 - 2	Lac Vegas
Craven, William Price	AWS	I/r	Follon Loof Colif
Crawford Invite Dans	APC	· · · · · · · · · · · · · · · · · · ·	Pono
Crawford, Irving Pope	A&O	L'n	Log Vorus
Creamer, Lois Jean	A&S	ET	.Das vegas
Creed, Jeanne Forson	G&A	OF	Double College
Croscopus Duc 1 C		16 3 n T	Corgon Cit-
Crescenzo, Frank George		T.	Carson City
Creveling, Robert LaRue			
Crider, John Franklin	CE	FT	. Keno

Name	College	Classification	Home Address
Crocker, Lenley Eugene	A&S	So	Reno
Cross, Charles Burton, Jr	A&S	Sp	Tanoe City, Calif.
Cross, Sally Silver	A&S	Fr	. Tahoe City, Calif.
Crow, Jerrine Dale	A&S	Fr	Saugatuck, Mich.
Crowe, Myrl Duane	MM	Sp	McGill
Cudinski, Anthony Joseph	A&S	Jr	Reno
Cullen, Raymond Alfred	A&S	So	Reno
Cummings, Brian Christoph	erA&S	Fr	Troy, N. Y.
Cundick, Richard LaMont	A&S	Fr	Ely
Cundiff, George Milton	ME	Jr	Harahan, La.
Cunha, George	A&S	So	Hawthorne
Cuniffe, Thomas James	A&S	Sp	Woodside, L. I., N.Y.
Cunningham, Donald John	MM	Fr	Seward, Alaska
Curless, Everett Wilbur	A&S	Jr	Corona, Calif.
Currie, Alice LaVerne	HE	Fr	Bishop, Calif.
Curtis, Mark	A&S	Fr	Phoenix, Ariz.
Cusick, Kenneth	A&S	So	Reno
Cutter, Patricia Margaret			
Dakin, Ethel Denise	A&S	Fr.	Salt Lake City, Utah
Dale, Harold Dana, Jr	A&S		Manhattan Beh., Cal.
Dalton, Ruth Mary			
Damkroger, Donald Albert			
Damon, Lawrence Eugene			
Damon, Lawrence Eugene  Damron, Louise Marie			
Dana, Robert Putnam	A.C.S	Sr	Dlogganton Calif
Daniel, Ruth Merrylyn			
D'Antonio, Louis Joseph			
Dark, Gloria McDonald			
Darlich, Herschel			
Darney, Lois			
Darney, Ronald Blaine			
Daseler, Jack Eugene			
Davidson, Donald Eggert			
Davidson, Lydia Anita			
Davis, Augustus J			
Davis, Fred Allen			
Davis, Grant			
Davis, James Clark			
Davis, James Howard			
Davis, Jerry Lee	A&S	So	Placerville, Calif.
Davis, Russell Burton			
Davis, Stanley Nelson	A&S	So	Ceres, Calif.
Davis, Vivian Bramble	A&S	Sr	Las Vegas
Davis, Willis Lee			
Dawson, Donald Ray			
Dawson, Dorothy Jean			
Dearing, Laura Lide			
Dearing, Lide			
DeLaMare, John Darrell			
DeLanoy, Drake			
DeLauer, Leland Keith			
		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Cumana, Cumi

Name	College	Classification	Home Address
Demetras, Leo	A&Š	Fr	Ely
Deming, Don Dorion			
Demuth, Jeanne M	A&S	Fr	Reno
Denham, Phyllis Louise	A&S	Fr	Henderson
Denton, Nixon Edward	A&S	Sr	Bridgeport, Calif.
DeRicco, Elmo Joseph	CE	Sr	Ely
Dericco, Elmo LeRoy	A&S	Fr.	Lovelock
DeRushia, Emery Jerome	A&S	Jr	McCloud, Calif.
Desiderio, Fred L	A&S	So	Reno
Devlin, William Richard	A&S	So	Whitney
DeVore, Maurice Clinton	CE	Fr	Alturas, Calif.
DeWalt, Patricia Marie	A&S	Fr	Hawthorne
DeWees, Wayne Leo	CE	Fr	Bishop, Calif.
Dickerson, Belford Clay	A&S	So	Reno
Dickerson, Beryl Ellen	A&S	Jr	Reno
Dickerson, Lois Midgley		Gr	Reno
Dickey, Donald Ryder, Jr	MM	So	San Francisco, Calif.
Dickinson, Philip Osborn	A&S	Fr	Chicago, Ill.
Diehl, Jack Fraser	ME	Fr	Reno
Dieringer, Andrew Jack	A&S	Sr	Reno
DiFraia, Dominic Anthony	MM	Fr	Somerville, Mass.
Dillon, Clark Gulick	CE	Fr	Hinsdale, Ill.
Dini, Joseph Edward			
Doan, Kenneth William			
Dodds, Douglas David			
Dolan, Murray Vincent			
Dolan, William Mark			
Donaldson, Gene William			
Dondero, Alan Gerard			
Dondero, Angelo Francis			
Dondero, Roy K			
Dorman, Edith H			
Douglass, Mary Ann			
Downes, Patrick Adams			
Doxey, Loren T			
Doyle, Alice Ruth			
Doyle, C. Louise Wogan	A&S	Jr	Reno
Doyle, John Thomas			
Doyle, William Thomas			
Drakulich, Duke	A&S	Jr	Kimberly
Drakulich, Michael	A&S	Sr	MeGill
Drennen, Edgar Raymond			
Dressler, Frederick William.	Ag	Fr.	.Gardnerville
Drewette, Frederick M	A&S	So	.Reno
Drown, Charles Marion	EE .	Fr.	Lovelock
Drown, Denece	A&8	Fr.	Twin Falls, Idaho
Drown, Lora Jean	A&S	Sr	Elko
Drown, Ralh Dayton	CE	Jr.	.Oroville, Calif.
Drown, Robert Joseh, Jr	A&S	Jr.	Lovelock
Drumm, Manuel Felix		Gr	Reno
Duffy, Charles Creighton	234	Jr.	Sparks
t, canties Oleighton			

Name	College	Classification	Home Address
Dugan, George L	A&S	Fr	Reno
Duggan, Dorothy Joan E	A&S	Fr	Oak Park, III.
Dulgar, Amma			
Dulgar, Doris Elaine			
Dulion, Alice Lenore			
Dupont, John Louis			
DuPratt, Ronald Joseph			
Durham, Dariel	A&S	So	Reno
Durham, Robert Clifton, Jr.	A&S	Sr	Ft. Lauderdale, Fla.
Dyer, Doris Ann	A&S	Fr	Reno
Earl, J. Rodney	CE	80	Reno
Earl, Winona Davis			
Early, Raymond Everett			
Eason, James Rodney	A & C	90	Sparks
Eason, Richard Lockhead			
Eather, Josephine J			
Ebberts, Rodney Orin			
Ebert, John William			
Ebert, William Henry			
Eckley, Howard			
Eddy, Gloria Gwen			
Eddy, Patsy Jean			
Edgemon, Roy James			
Edsall, Glenn Ellis			
Edwards, Betty Jane			
g Edwards, Joyce LaBelle			
Edwards, Joyce Marie			
Elder, Rae Irene	A&S	Sp	Reno
Elder, Willard Duane	A&S	Fr	Nichols, Iowa
Eliades, Jordan	A&S	Sr	McGill
Elliott, Carol Jeanne	A&S	Fr	Santa Monica, Calif.
Ellis, Joseph Matthew	ММ	Sr	Chicago, Ill.
Ellis, Mary Katherine			
Ellis, Ray Gaston			
Elmore, Richard James, Jr.			
Emery, James Patrick			
Engelke, Honor Claire			
English, Arthur Matthew			
Enke, Helen Rosalie			
Ensslin, Theodore Gustav			
Erb, Jo Ann			
Erich, Theodore	A&Q		Podwood City Colif
Ertter, Bernadette Lois	A L.C		Doing Tasks
Estes, George Amos	A & C		Doise, Idano
Etchart, Alice	AWD.		Mediord, Mass.
Etchogorov LoBo-Worne	A&S.	Sr,	winnemucca
Etchegaray, LeRoy Wayne.	Ag	F'r	Eureka
Etcheto, John	A&S.	80	Reno
Etcheverry, Mary Jean			
Eustachy, George Marius	A&S.	So	Oakland, Calif.
Evans, Dwain Harold	A&S.	Fr	Susanville, Calif.
Evans, Eugene Thomas	A&S.	Sr	San Leandro, Calif.

Name	College	Classification	Home Address
Evans, Galen Lloyd	A&S	Fr.	Reno
Evans, Norman Seymore	A&S	Sp	Reno
Evasovic, Eli			
Everett, Albert Bernard			
Facha, Joseph Ventura			
Fagan, John Francis			
Fahy, Thomas Robert			
Fairchild, George Theodore.			
Fairchild, Mahlon David			
Fairchild, Margaret			
Fairn, Patricia Ann			
Falconeri, Gennaro S			
Farnsworth, Bertha Ellen			
Farnsworth, Ray Darwin			
Faul, Rose Marie			
Fee, Patricia Anne			
Feeger, John Albert			
Feit, Cornelius Joseph			
Fenkell, Jack			
Ferguson, Lewis Monroe			
Ferrari, Evelyn Gertrude			
Ferris, Mary Arlene			
Fiddes, Paul Eugene			
Fields, Harold Clifford	A&S	Fr.	Elko
Fikes, Jack Harris	A&S	Fr	Reno
Fischer, Harold William	A&S	So	San Francisco, Calif.
Fiscus, Joyce			
Fisher, Herman Edward	A&S	Fr	Las Vegas
Fisher, Mary Wilma	A&S	So	Reno
Fister, Don D	A&S	Fr	Fallon
Fitzgerald, Marilyn Jeanne.	A&S	Fr.	Las Vegas
Flangas, Gux Alexander	MM	Fr.	Ely
Flangas, William Gus			
Fleshman, Robert Dean			
Flynn, Charles Patrick			
Foley, John Patrick			
Foley, Joseph Michael			
Fong, Wing Gay			
Ford, Boyce Lammar			
Forsyth, Stanley Swenson			
Foulkes, Harvey Barrett, Jr	EE	Jr.	San Francisco, Calif.
Fox, Kenneth Suttle			
Fox, Otto Monroe, Jr			
Fox, Patricia Ellen			
Francellini, Patrick F			
Francovich, Jac Nikola			
Frank, Jack Donald			
Frank, Myrna Arline			
Franke, OttoFranklin, Glenn Southard			
Franson, Carl Emil, Jr			
- ranson, Carr Emili, Jr	UI7	01	Golconda

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Name	College	Classification	Home Address
Frantz, Ted Claude			
Frediani, Silvano John			
Free, Raymond Brafford, Jr.	A&S	So	Pioche
Freeman, James Frank	A&S	Fr	Reno
Freemont, Earl Chester	A&S	So	Reno
Freeger, Joan Shirley			
Frehner, Gordon			
French, Donald Eugene	A&S	So	Wendall, Idaho
Fricke, Calvin Alden	Ag	So	Gardnerville
Friel, John Joseph, Jr	A&S	So	Tonopah
Friend, Marjorie Lynette			
Frisbie, Charles Robert	MM	Sr	Los Angeles, Calif.
Fritch, Lewis Homer	EE	Jr	San Francisco, Calif.
Fritz, Betty Lee	A&S	Jr	Bridgeport, Calif.
Fryberger, Fay Elaine	A&S	So	Lovelock
Fryer, Charles Morel	Ag	So	San Francisco, Calif.
Fugit, William Dale	MM	Jr	Pendleton, Ore.
Fulstone, Eleanor			
Fulstone, Jeanne			
Fulstone, Richard Nelson			
Fulton, Fred J.	MM		Reno
Fulton, Hugh			
Fulton, Jack Ryan			
Funkhouser, John Randall			
Funkhouser, Preston Lee			
Furchner, Patricia Virginia			
Furchner, Theodore Allen			
Furin, Jack James			
Fuss, Robert Herman			
Gadda, Wilma Dolores			
Gaffey, Thomas Tracy			
Gaffey. William T., Jr	A&S.	Fr	Reno
Gallagher, Gedney			
Galletti, Gerald Wilbur	A&S.	Fr	Sparks
Galli, Albert Andre'	A&S.	Fr	Reno
Galli, Michael	Ag	Sp	Elko
Galli, Peter, Jr	MM	So	Elko
Galloway, Betty Jean	A&S.	Sp	Reno
Gallues, Henry Nick	A&S.	Jr	Reno
Gardella, Raymond Francis			
Gardner, Virginia M			
Garfinkle, Buddy Alvin			
Garland, Jeanne	A&S.	Fr	Las Vegas
Garner, Nina Verdie	A&S.	So	Tungsten
Garner, Roma F	A&S	Sr	Tungsten
Garretson, Willis LeMoyne.	EE	Fr	Reno
Garrett, Donna Elizabeth			
Gartler, Seymour			
Gary, Arthur Carleton			
Gaston, Sara Christine	A&S	Fr.	Valleio Calif
		***************************************	, arrego, Carre

Name			Home Address
Geach, Joseph LeRoy, Jr			
Gelmstedt, Cliff Theodore			
Gent, William Robert			
Goehegan, William Lester			
George, Bebe A			
George, Don Stacy			
Geraghty, William M			
Gerken, Rudy			
Gerrans, Mary Lou			
Getto, George M	A&S	So	Sparks
Geyer, Charles William			
Gialy, Andrew N			
Gianelli, Louis Frank			
Gibson, Betty Lou Bender	HE	Fr	Las Vegas
Gibson, George P	A&S	Jr	Carson City
Gibson, Maisie LuCille	A&S	Fr	Las Vegas
Gibson, Ray William	ME	Fr	Henderson
Gibson, Robert Warren			
Gidley, Joyce			
Gifford, Arthur Alan			
Gifford, Robert Lee			
Gigas, Gunter George			
Gilbert, Colleen Frances			
Gilbert, Marvin Dick			
Gildner, Will Warner			
Gillis, Robert Lee			_
Gillis, William Grant			
Gillispie, Robert William			
Gilmore, Earl Penilton			
Ginocchio, Andrea			
Giorgi, Evo			
Giorgi, Ugo, Jr.			
Glahn, Reginald Austin			
Glaser, Lea Jane			
Glynn, James Mercer			
Glynn, Marillyn Reynolds			
Goble, Martha Trulove			
Goodbey, James Milton			
Godbey, Thomas William			
Goen, Lawrence R.	EE	Fr	Boulder City
Goff, Charles William			
A	_		
Goff, Marguerite Virginia Goicoa, Romon Nicanor			
Gomes, Edward Francis			
Gomes, John Milton			
Goodin, James Whanser			
Goodin, James Thomas			
Goodrich, Kenneth Elliott			
Gori, Floyd Edward			
Gorman, Richard Harold			
Gorton, George Darwin	A&S	F'r	.virginia City

	•		
Name			Home Address
Gotberg, Marion Elizabeth			
Gough, Jack Richard	EE	So	Salt Lake City, Utah
Gough, Ray Frank			
Gould, Barbara J			
Gould, Geraldine			
Gould, Harry Kenton			
Gould, Robert Emerson			
Graban, Michael			
Granata, Evo A			
Granata, Manuel			
Gras, Sidney Jackson			
Graul, Albert Richard			
Graves, Orsie Sidney	A&S	Sr	Sparks
Gray, Raymond Guild		Gr	Reno
Green, Elmer Talmadge	A&S	Fr	Philadelphia, Pa.
Green, Phyllis B	A&S	Jr	Sparks
Green, Wallace Glenn	EE	Jr	Sitka, Alaska
Gregory, Arthur Royce	CE	Jr	Elko
Gregory, Ernest Gordon	A&S	Fr	Elko
Grevich, Milan James	A&S	Fr.	Mt. Iron, Minn.
Griffen, Gloria Grace	A&S	So	Reno
Griffin, Marguerite Eunice	,	Gr	Reno
Griffith, George Lee	ME	Jr	Thornton, Calif.
Griswold, Morley W			
Grotegut, Eugene K			
Groth, George Robert			
Grover, Theodore W			
Gruwell, Joseph D., Jr	1&8	So.	Hawthorne
Gubler, Delma	A&S	So	Overton
Guess, Joyce Lois	A&S	Jr	Loyalton Calif
Guess, Phyllis Jean			
Guio, Dexter Thayer	A&S	Fr	Rong
Gunderson, Carol A	A&S	Sr	Rono
Gunzburg, Rolland Louis			
Gustin, William	EE.	Sr	Concholla Calif
Guyette, David Eugene	1.68	17»	Hondorson
1			
Hackett, Helen	A&S	Sr	Pioche
Hackett, Irving E	ММ	Fr	Pioche
Hadley, Glen Milo, Jr	A&S	Fr.	Reno
Hugar, Thomas Roy	EE	Jr	Reno
Hagen, Donald	A&S	Fr	Beverly Hills, Cal.
Hager, James			
Haines, Thellwyn Montague			
Hakata, George Hachino			
Hale, James Clarence, Jr			
Haley, Gloria	A&S	Sr.	Litchfield Calif
Hall, Louis Brewer		Gr	Reno
Hall, Norman Sidney	CE	Fr.	Klamath Falls Ora
Haman, Howard John	A&S	Sr	Seattle Wesh
Hamblin, Joann Gray	HE	Fr	National City Calif
Hamilton, David Earl	EE	Se	Hagaman N V
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Name	Callaga	Classification	Home Address
Name Hamm, Gladys			
Hancock, Ronald Helmer			
Hancock, William Edward			
Hand, Melva Louise			
Hanford, Gerard B., Jr			
Hanley, Mary Cathleen			
Hanna, David Dale			
Hansen, Anna Lu			
Hansen, Margaret Florence			
Hansen, Marilyn Irene			
Hansen, Stanley			
Hansen, Stanley Walter			
Hansen, William Christian			
Hanson, John Carl			
Hanssen, Alice Marie			
Hanssen, Doris Agnes			
Hardesty, Manford Ira			
Hardesty, Vena Lee			
Hardison, Artson P			
Hardison, Julia Bogard			
Hardy, Buddy Ray			· · · · · · · · · · · · · · · · · · ·
Harker, James Stevens			
Harmon, John Robert			
Harney, Gordon Bernard			
Harp, Merrie Jo			
Harper, William Matthew, J.			
Harrigan, William Anderson			
Harris, Brunson Mitchell			
Harris, Donald Arthur	8&S	Fr	Los Angeles, Calif.
Harris, Evan LaMar	8&A	Fr.	China Lake, Calif.
Harris, Gordon Walter			
Harris, Jack Charles	A&S	So	Las Vegas
Harris, Joyce Adair			
Harris, Paul LeRoy			
Harrison, Leonard Lewis	EE	Fr	Babbitt
Hartor, Robert Francis			
Harvey, Thomas George	EE	Jr	Reno
Harwood, Dewey Shafter, Jr	MM	So	Battle Mountain
Haslam, Mary Frances	A&S	Fr	Oakdale, Calif.
Hatton, William Charles	A&S	Fr	Fallon
Hauk, Robert W			
Hawkins, Leslie Earl			
Hayes, Gordon Lea			
Hayes, Harold Burton			
Heath, Billy Jane			
Heath, Stanley Robert	A&S	Fr.	Menomonee, Wisc.
Hecker, Nancy Ann	A&S	So	Reno
Heckethorne, Howard Elden	A&S	Sr	Las Vegas
Hedges, Weldon Lee			
Heher, Bertine Ann	A&S	Jr	Reno
Heinen, Frederick C	EE	Jr	Reno
Helm, Ruth Marie			
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그래요? 그래의 이렇게 얼마를 끊겨워?	<i>y</i> - <i>y</i>		
Name	College	Classification	Home Address
Helmick, James Mason			
Helstowski, John Theodore	A&S	So	Irvington, N. J.
Hempfling, Robert James	A&S	Fr	Reno
Henderson, John Dwight	A&S	Fr	Reno
Henningsen, Carsten Martin			
Henningsen, John Carsten			
Henrikson, Oliver Milton			
Herreid, Gordon Weed			
Herrera, Elaine Frances			
Herrick, James Felix			
Herz, Thomas Sanford			
Herz, Wilton Frederick			
Hess, Harrie Fox			
Hess, Louis Charles, Jr			
Heywood, Helaine Frances.			
Hibbs, Jo			
Hickman, Helen Elaine			
Hickman, Jacqueline J			
Hildebrand, Bert Dewey, J.			
Hill, Bruce Murchison			
Hill, Charles Edward			
Hill, Charles Leonard, Jr	CE	Er.	Pono
Hill, Donald Phillip	ME	Fr	Rana
Hill, Richard Marcus			
Hill, Stanley Gale			
Hilts, Frederick Borthwick			
Himes, George Hadley			
Hinckley, Ward Wayne			
Hitchens, Lois Elaine	A&S		Reno
Hodge, Barbara Anne			
Hodgkins, Gael Atherton			
Hoke, Robert Stephen	MM	So	Santa Cruz Calif
Holderman, Orville Lynn			
Holgate, Nancy Jean	A&S	Fr	Rana
Holland, Richard James			
Hollingsworth, Edgar Arde	nt MM	Fr	Lovelock
Holloway, John Arthur	A&S	So	Hollywood Calif
Holman, Betty Jean	A&S	Fr	Reno
Holman, Bobby Dean	Aσ	Fr	Rono
Holman, Shanna Louise	A & S	So	Elv
Holmby, Harold Gustav			
Holmes, Howard Forrest			
Holmes, June Vera M			
Holt, Ann	A&S	Wr	MaCill
Hooper, Dorothy Elaine	A&B	E 1	Euroka
Hooper, William Henry	EE	S1	Eureka Vallojo Calif
Hoover, Norman W	CE		vanejo, cam.
Hopkins, Galen Perry	A & Q	U1,	Sonome Calif
Hopper, Floyd Lawrence	A & S		Clearmeter Calif
Hopper, Fredrick E.		So So	Clearwater, Calif.
Horgan, Helmi Dorthea	A&A 2&A	SU	Popo
and a second portion	a.w.		tello

Name	College	Classification	Home Address
Horlacher, John R.	EE	Fr	Ely
Hornbeck, Shirley Louise			
Horton, Robert Carlton			
Horton, William Arthur			
Houghtaling, Earl Jay			
Houghton, Alvin Albert			
Houghton, Georgia Lee	A&S	Fr.	Las Vegas
Houghton, Helen Lorraine			
Houser, Robert Wilson			
Howard, James M			
Howard, Jean Eleanor			
Howard, Landon Hawthorne			
Howard, Robert Lee			
Howard, Sherman John			
Howd, Donald Fredric			
Hubbard, Charmaine Marie			
Hubbard, Leon Ronald			
Huddleston, Jack Edmund			
Hudgens, Dorothy Jean			
Hudgens, Robert Lewis			
Hug, Allen LeRoy			
Hulbert, Robert Ernest			
Hull, Jack Eugene			
Humphroya Marilan			
Humphreys, Marilyn			
Hunt, Charles Lavelle			
Hunt, Robert Louis			
Hunter, Anne			
Hunter, Charlotte Lilly			
Hunter, George Robert			
Hursh, Ernest Warren			
Hurst, Clayton R.			
Hutchins, Bobby Dean			
Hutton, Richard Travis			
Hyde, Garold Ashel			
Hyde, Orson W	A&S	So	American Fork, Utal
Ianni, Pio William	3.410	17.	Cnaulta
Ilg, Christian Herman, Jr			
Illerich, Daniel George			
Inch, Major A.			
Ingle, Hugh Cochrane, Jr			
Ireland, Patricia Claire	A&S	Sr	McGill
Ireland, Willis John	A&S	So	McGill
Irish, William Cooper	A&S	Fr	Sparks
Irwin, Elsie Ruth			
Ishikuro, Miyoko		Gr	Honokaa, Hawaii
Ishimoto, William Hiro	A&S	Fr	Overton
Isola, Mario John	A&S	Jr	Reno
Itza, Marion	A&S	So	Winnemucca
Ivy, Myrna Joan	A&S	Fr	Las Vegas

			Ŭ	
	Name Jack, Dale Elliott		Classification	
	Jackson, Richard Maurice			
	Jacobs, Raymond Gilbert	UE	P F	Hollywood Colif
	Jager, Wilbur Bradshaw	A&&		Honywoou, Cam.
	James, Marilyn Ruth	A&S		virginia Ony
	Jamieson, Robert Hardy			
	Jardon, Mary Hannah			
	Jemison, Rex Alan			
	Jenkins, Harold Everett			
	Jensen, Esther Louise			
	Jensen, Mary Jean			
	Jensen, Olive Dell			
	Jensen, Reilly Campbell			
	Jepsen, Hans Raymond, Jr			
	Jessop, Glenn Steven			
	Jewett, Donald Kenneth			
	Johns, Genevieve Gloria			
	Johns, Stanley D			
	Johnsen, Melvin Bernard			
	Johnson, Arthur Wellesley	A&S	Sr	Fallon
	Johnson, Dean Colgrove			
	Johnson, Donald Scott			
	Johnson, Elma Hand			
	Johnson, Emmett Clifton	CE	Jr	Los Angeles, Calif.
	Johnson, Frank Hilton			
	Johnson, George Mifflen	A&S	Fr	New Kensington, Pa.
	Johnson, Joylin Jane			
	Johnson, Laurence William	MM	Fr	Duncan, Ariz.
	Johnson, Noel William			
	Johnson, Norman Joseph			
	Johnson, Virgil Kay			
	Johnson, Walter Burton			
	Johnson, Walter T., Jr			
	Johnson, William Howard			
	Johnston, Dalton Melville			
	Joice, Fred Alexander			
	Jolly, Marjorie Beatrice			
	Jolly, Tom Langhorn			
	Jones, Barbara Darleen			
	Jones, Edmund Aaron			
	Jones, Henry William			
	Jones, Patricia Louise			
	Jones, Robert Blanchard	MM	.Ir	Sacramento Calif
	Jones, Thomas Lacy			
	Joseph, Barbara Rose			
	Joseph, Louie Saleem			
	Judkins, Clyde Robert	EE	Tr.	yuwoou, Cant. Carlin
	Juinger, Edwin Chester			
	Jukich, George, Jr	NEi	Fr	McGill
1	Julian, Joseph	&&£	80,	keno
	Justycky, Felix	8 <i>i</i> b	Sr	Albany, N. Y.

Name all a .	College	Classification	Home Address
Kabeary, William S.			
Kafoury, Samuel Peter, Jr			
Kajans, George Andrew			
Kalmanir, Thomas John			
Kaminaka, Eunice			
Kane, Elizabeth Haydock	A&S	Sr	Glendale, Calif. 🚉 🙃 🙉
Kaplan, Abe	A&S	Jr.	Renote
Karacabey, Tahsin			
Karrasch, Karl Kenneth	A&S	So	Reno 1 20 0
Kastenas, Boleslaus W	A&S	Sr	Reno
Katz, Leonard	MM	Jr	Bronx, N. Y.
Kaul, Harry John	EE	Sr	Golconda
Kean, Marjory Christine	HE	So	Carson City
Keddie, Helen Marie	A&S	Fr	San Francisco, Calif,
Keenan, Jacqueline A	A&S	Fr	Reno
Keever, Charles Lee	A&S	Fr	Carson City
Kegel Jerome Charles	ME	Tre	Reno
Kehoe, John J.	A&S	So	Reno
Keiffer, Robert Stanley	A&S	Sr.	Reno : 4.0x 3
Keith, Carol			
Keller, Harold Paschall			
Keller, Shirley Faye.	A&S	So.	Elko va i
Kelly, Marjorie Idella	A&S	Fr	Imlay
Kelley, Terrence Daniel	A&S	Fr	Reno
Kelley, Virginia Rose	1.1.1.C.S	Fr	Reno
Kelley, Virginia Rose	1	Sr	Santa Ana Calif
Kendall Robert Eli	MM	Qr	Virginia City
Kennedy Doris May	188	So.	Filzo
Kennedy Frances Wilms	AWD	Q.,	Sugarvilla Calif'
Kennedy, Prances Willia	AWB		Richon Colif
Kent Debart Dee	A P.O		Eallon Carr.
Koown Clamas Thawar	G&A	80	Pana
Konlon David Edwin	A&S	FT	Wellow Creek Calif
Kepper, David Edwin	A&S	ET.	. Wainut Creek, Calli.
Kern, Robert Bruce	ME	FT.	San Francisco, Cam.
Kernan, Barbara Louise	A&S	Fr	.Reno
Kerr, Robert Todd	A&S	Fr	.Reno
Kewley, Bruce Russell	A&S	So	Lovelock
Kiley, L. David Kiley, L. David Killgore, Richard H. Kim, Elizabeth King, John Theodore. Kinneberg, David Andrew.	EE	So	Reno
Killgore, Richard H.	A&S	Fr	Reno
Kim, Elizabeth	A&S	So	Las Vegas
King, John Theodore	ME	Jr	Reno
Kinneberg, David Andrew	MM	So	Battle Mountain
Minner, Richard Ervin	EE	50	.Clearneid, Utan
Kinney, Joseph Francis	ME	Jr	Winnemucca
Kinnikin, William E.			
Kirkbride, Loren Allen	EE	Sr	Sebastopol, Calif.
Kishpaugh, Dale Hampton	ME	Jr	Clarksburg, Calif
Klenes, James Charles	A&S	Fr	Uniontown, Pa.
Klimaszewski, Matthew E	A&S	Jr	Garfield, N. J.
Klimaszewski, Theodore S	A&S	Fr	Garfield, N. J.
Klinger, Betty Jane	A&S	Fr	Boulder City

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Name	College	Classification	Home Address
Klosterman, Edward	A&S	Fr	San Diego, Calif.
Knight, Richard Goodwin	ME	Fr	Concord, Call.
Knoles, James Pierce	A&S	Fr	San Luis Obispo, Cai.
Knoll, Joseph James	A&S	Fr	Westwood, Calli.
Knowles, Gerald Elgin	MM	Jr	Willows, Calif.
Knudson, Elmer Robert	A&S	So	Reno
Kondel, Theodore William			
Korb, Leighton Richard			
Korb, Robert William			
Kornmayer, Freda Jeanne			
Kornmayer, William Andrew			
Kosakowski, Stanley Willian			
Kramer, Gladys Putney			
Krause, Otto Hans			
Kremen, Thelma			
Kretzmeier, Devona			
Kring, Marian Imogene			
Kuchera, Myrna Berdine			
Kuhn, John Robert			
Kurtz, Wallace Laverne	A&S	Fr	Hazen
12 f 3/20	***	**	w .11.
Laca, Tony, Jr			
Lamberson, Ellis Edmund			
Lampe, Carol Diane			
Landucci, August J			
Lane, Jimmie Joan	A&S	So	Winnemucca
Langan, Lucien Norberto		•	
Lange, Phyllis			
Lange, Ronald Victor			
Langley, Cordes Porcher			
Lanning, Louis Keith			
Larsen, Richard Friman			
Larsen, Robert Theodore			
Larson, Adolph Roy			
Larson, Bruce Linn			
Larson, Robert Harry			
Larson, Valdemar Frick			
Larsson, Alfred John, Jr			
Lartirigoyen, Mary Jane			
Laughery, Arlyn Lucerne			
Laughlin, Priscilla T			
Launer, Douglas C			
Lauterbach, Lois June			
Laxalt, John Maurice			
Leberski, Walter Irvin			
Lee, Charles Allen	CE	So	Salinas, Calif.
Lee, Edward E., Jr			
Lee, Eleanor Corle			
Lee, Georgia Diana M			
Lee, Harriet Maxine			
Lee, John Peter			
Lee, Keith L.		Gr	Reno

Name	College	Classification	Home Address
Lee, Maida	A&S	So	Boulder City
Lee, Marilynn Ann			
Legarza, Ray Dan			
Leggett, John Brice			
LeGoy, Leo Robert			
Lehman, Beverley Edna			
Leisure, Carl William			
Lemaire, Darrell B	A&S	So.	Reno
Lenzora, Richard Melvin			
Leon, Frederick Martin			
Leonard, Lawrence C			
Leonard, Lionel George			
Lepori, Edna Claudine			
Lepori, Henry Joseph			
Lepori, Paul Charles			
Leupold, Ralph Pollard			
Levack, Samuel S			
Levitt, Ralph Richard			
Lewis, Benjamin, Jr.			
Lewis, Wayne Earl			
Libbey, Mary Gluyas			
Libke, Joseph Burr			
Lightfoot, Donald Lyman			
Linabary, Dorothy Esther			
Lind, Patricia E			
Lindeman, Dwight Jerome			
Lindesmith, George Gerald			
Lindesmith, Orlando Roger			
Linfesty, Lyman Daniel			
Link, Marilyn Jean			
Linka, Robert Harrison			
Linville, Gladys Lynne			
Liotard, Alphonsine			
Little, Robert Elliott			
Littlejohns, Dale Edward			
Livierato, Eli	A&S	Jr	Reno
Lockhart, Charles Loren	MM	Sr	Dunsmuir, Calif.
Logan, Thomas George	ME	Fr	.Overton
Lokke, Freda Branch	A&S	So	Sparks
Lokke, Gerald Fred	A&S	Fr	.Sparks
Lokke, Theodore Henry			
Long, John Robert			
Long, Walter E			
Lord, Raymond Nelson	MM	Fr.	Lake Hiawatha, N.J.
Lothrop, Dolores Lee	A&S	So	Reno
Louis, George Arya	A&S	So	New York, N. Y.
Lovell, Laura Lucretia	A&S	Fr.	Mammoth Lakes, Cal
Lowden, John Leroy		Jr.	Walla Walla, Wash
Lowry, Gus William	A&S	So.	McComb. Miss.
Luce, Darrell Dunkle		So.	Las Vegas
Lund, Clarence Alfred	A&S	Fr	Virginia City
Lund, Richard	A&S	Fr	Reno
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Name	College	Classification	n Home Address
Lundergreen, Shirley Lois			
Lusebrink, Ted Robert	A&S	Fr	Concord, Calif.
Lusich, George Jerry	EE	Fr	Sparks
Lusick, Nick Leon			
Lyman, Donald Joseph	A&S	So	Chicago, Ill.
Lynch, James Francis, Jr			
Lynch, Robert Michael			
Lynn, Cal Franklin			
Lyons, Geraldine Elizabeth	A&S	Fr	Reno
Macaulay, Shirley M			
Macaulay, Thomas Roderic			
MacDonald, Marilyn Louise.			
MacDougall, Gerry Ann			
Mack, Gene Marie H	A&S	Fr	Reno
Mack, Robert Charles			
Mackey, Donna Lenore	A&S	Fr	Babbitt
Mackey, James Patrick	A&S	Fr	E. Liverpool, Ohio
Madsen, Constance Luella	A&S	So	Fallon
Madsen, Robert Kelly	MM	Jr	San Rafael, Calif.
Maestretti, Don William			
Maestretti, Marjorie Lee	A&S	Jr,	Austin
Magee, George Franklin			
Magleby, Mavis			
Mahon, Virginia Ann			
Mainwaring, Charles Otto			
Mally, William Paul			
Malone, Robert Gordon			
Maloney, Doris			
Maloney, Frank M			
Malson, Marion Eugene			
Mansfield, Helen Louise			
Mantle, Evelyn			
Mardellis, Anthony			
Marisquirena, Josephine A	A & G		File
Marker, Ella V			
Marker, Geneva May			
Marks, Jerome Francis			
-			
Marriage, Charles B			
Martin, Barbara Earle			
Martin, George Edward			
Martin, Lewis Edward			
Martin, Margaret Louise			
Martin, Robert Calvin			
Martinelli, Ernest			
Martinez, Stella A			
Martinson, John Elwyn			
Marvel, John Wyland			
Marx, Anneliese			
Mason, Robert Crosby	A&S	Fr	Reno
Mason, Ruth Fowler	A&S	Sp	Reno
Mathews, Frank Douglas	A&S	Fr,	Boulder City

Nome	G-11	Q1	
Mathiesen, Charles Hardy	Conege	Classification	Home Address
Mathias, Joe Robinson	Ag	Fr	Carson Oity
Matteoni, Silvano J			
Matteucci, Albert			
Matteucci, Malcom Gene	A&S	F T	Las vegas
Maynard, Russell James	A&S	FT	Keno
Mayo, Charles Summer			
Mazza, Marcella Nataline			
McAlear, Allen Lee	A&S	Fr	Red Lodge, Montana
McBride, Emma Jeanne	A&S	Sr	Clovis, N. M.
McBride, Gerald John			
McCabe, Joan Irene.			
McCabe, William L., Jr			
McCartney, Lyle Oakley			
McCloskey, Conrad W			
McCloskey, Stehen W			
McClure, Harriette Marie			
McClurkin, Marjorie E			
McConaughy, Alfred			
McConville, Lee Bernard, Jr.	ИМ	Sr	Los Angeles, Calif.
McCormack, Robert Michael.	ME	So	San Enselmo, Calif.
McCrae, Robert George	MM	So	Frederick, Colo.
McCray, Elinor Mae	A&S	So	Reno
McCray, Vernon Hamlin			
McCuistion, Robert Dean			
McCulloch, John Shurtliff			
McCutcheon, Edwin Lage			
			and the second second
McDonough, Shirley Ann.	A&S	So	Reno
McEachern, John Russell.	EE	Fr	Lovelock
McElawin, Joyce Elizabeth	A&S	So	Reno
McEadden Albert Joseph	EE	So	Las Vegas
McFarland Billy Joe	A&S	Jr.	Houston, Texas
McFarland James G	A&S	So	San Francisco Calif
McFarlane Margaret	188	So	Sacramento Calif
McGoodwin John William	284	Fr	Henderson Code C
McGowan Royer J	2.4.6	So	Hawthorne
McDonald, Marigene C	188	Sr man	Reno
McGuire, Raymond Adam McHatton, Elwood Gordon	189	.∜" Îrè	Chico Colif
McKenna, Charles P., Jr	A&B	Pr.	Annandala Va
McKenna, Eugene Morgan	NIIV		Charles 3 a 3
McKenzie, Lester Angus	A&o		Dem dice Velley
McKernon, Helen Porter	Ag		Reno
			·····
McKissick, Howard F., Jr	A&S		
McKnight, Margery	A&S	Fr	Reno
McLaughlin, Leonard J			
McLean, John B.			
McMichael, Junerwanda	A&S	Sr	Reno
McMurray, Myrtle Ruth	EE	742 ? <b>f'r.</b>	Pioche
McNeilly, Harold Dean	Ag	miliSr	Keno
McNutt, Wesley Reed	A&S	Fr.	Ely 23 ost
McPherson, Donald Lee	A&S	Fr.	Sutter Creek, Calif.

Name	Collogo	Classification	Home Address
McQueen, Effie Jensen			
McTavish, Jane Elizabeth			
McVae, Douglas Keith			
McVey, Phillip Bernard			
Meacham, Warren Edgar			
Means, Jack Abbott			
Means, Lawrence George			
Mecham, Ferris Joseph			
Meckes, Billie Rose			
Meffley, Richard Weber			
Meiser, Vernon Melville			
Melarkey, Daniel Campbell			
Melcher, Joe Franklin			
Melendy, Patricia Anne			
Mellon, Benita			
Melner, Sinclair Lewis			
Menard, Alan George			
Mendive, Louis Steve			
Menesini, Ray			
Menicucci, Joseph Michael			
Menke, Eugene Monroe			
Mentaberry, Fausto V			
Menu, Glen Eugene			
Menu, Marjorie J			
Meredith, Thomas Keith			
Merwin, Shirley June			
Messer, Edward John			
Metcalfe, John Moulton			
Metzger, William Thompson			
Metzker, Donald James			
Michael, John Harold			
Micheo, Mary Grace			
Mickelson, Merton Marion			
Mieding, John Fred	ММ	Fr	Los Angeles, Calif.
Mikulich, Andrew John			
Milburn, John Francis	A&S	Fr	Philadelphia, Pa.
Miles, Charles Henry, Jr			
Miles, Joanne Cecelia	A&S	Fr	Carson City
Miles, Richard Lloyd	A&S	So	San Pablo, Calif.
Miller, Ethel Lillian	8&A	Fr	Reno
Miller, John Randall	A&S	Sr	Carson City
Miller, Joseph	ME	Fr	Kimberly
Miller, Marnie Eldina	A&S	Fr	Winnemucca
Miller, Oliver Ray	A&S	Fr	Reno
Miller, Richard Grant	A&S	Sp	Reno
Miller, Robert William			
Miller, Wendell Artell			
Miller, William Vinton			
Miller, Winneva Fern			
Millinger, Jack Leverne			
Mills, Gene Aubrey			
		······································	Call.

Name			Home Address
Mills, Richard Knowles			
Mills, Robert Bruce			
Mills, Russell Gerow			
Minor, Beverly Jean			
Minor, Gene Savery			
Mirabelli, Michael A			
Miramon, Alfred M., Jr	CE	Fr	Reno
Mitchell, James Stewart	CE	Fr	Esparto, Calif.
Moell, James Laban	A&S	So	Elko
Molignoni, Bonny Louise			
Molk, Ashley Jay	ME	So	San Dimas, Calif.
Molk, Marguerite Cox			
Monroe, Lucille			
Montero, Helen D			
Moore, Bebe Ann			
Moore, David Sturtevant			
Moore, Donna Mae			
Moore, Edith Maxine			
Moore, Frances Jean			
Moore, Frank Charles			
Moore, Gail Maree			
Moore, Joseph Eli, Jr Moore, Paul, Jr			
Moore, Paul Lyster			
Moore, Richard Vernon			
Moore, Robert Herbert			
Moore, Robert James			
Moore, Virginia King			
Morehead, Henry I.			
Morey, Beverly Marion	HE	So	Long Beach, Cam.
Morgans, Elizabeth Ann	A&S	So	Reno
Morita, Shinji Joseph	A&S	So	Las Vegas
Morley, Ernest Floyd	A&S	Fr	Ely
Morrice, Edward, Jr.	MM	Jr	San Francisco, Calif.
Morgans, Elizabeth Ann Morita, Shinji Joseph Morley, Ernest Floyd Morrice, Edward, Jr Morris, Conrad Neil Morris, Donald Howard Morris, Lymps Morryy, Morryy, Lymps Morryy, Lymps Morryy, Lymps Morryy	ME	Fr	Big Pine, Calif.
Morris, Donald Howard	A&S	Sp	Golden, Colo.
Morris, James Mervyn, Jr	CE	Sr	. Sacramento, Calif.
Morris, Joel Maurice	MM	Jr	Van Nuys, Calif.
Morris, James Mervyn, Jr Morris, Joel Maurice Morris, Nora	A&S	Sr	Tonopah
Morris, William Wesley	A&S	So	Las Vegas
Morrison, Darrol Hugh	A&S	So	Eureka
Morrison, Robert Andrew	À&S	So	.Reno
Morrow, Leslie Edward	A&S	So	. Modesto, Calif.
Mortara, Rita Rena			
Morton, James Roy			
Morton, Robert William			
Moulton, Mary			
Moyer, Harlan Ernest			
Moylan, William Richard			
Muguira, Dorothea			
Muguira, Evelyn Angela	* A & S	· Fr	Reno

Name Mulert, Howard Max	College	Classification	Home Address
Muller, Leopold Frederic			
Munk, Wayne Mercer			
Munley, John Harold			
Munter, Dean Elwin	CE.	SU Fr	Dolgon Montana
Murdough, Adele Marsh			
Murdough, Charles Edward			
Murphy, Frederick Alexande			
Murphy, Harold Dale			
Mustard, Donald L			
Myers, Gail Nadina			
Myers, Robert Taylor			
Mygatt, Pete			
Myhre, Elma E			
Contract of the Contract of th			
Nagel, William Leroy			
Nall, Darrell Stephen			
Nannini, Florindo			
Nannini, Louis George			
Nash, Jean			
Naveran, Angela Gloria			
Neal, Marilyn June			
Neale, Lael Porter			
Neddenreip. Chris Gerald			
Nellis, Harold Eugene			
Nelson, Fred Albert			
Nelson, Robert Merwin			
Nevin, Michael Robert			
Newell, George Edward			
Nichols, Ward William			
Nicolay, Larned Jay	A&S	E'r	Pomona, Calif.
Nielsen, Joyce Winifred	A&S	Sr	Reno
Nielsen, Marion Jeanne	A&&	80	Reno
Nielsen, Thelma	A&B	Sp	Reno
Nocciolo, Albert	A&A	FT	Belle, N. J.
Nojima, Tetsuo Roy* *Nooney, Grove Crawford	M.M	50 En	EIKO
*Nord, Earnest Wilhelm	A&S ME	F F	Las vegas
Norman, Ronald Victor	M E/		Minneapons, Minn.
Norris, Eleanor Kathleen	A&&	F r	Reno
Novoa, Fidel A	A&& A or		Berkeley, Cant.
Nugent, Lois Soucek	Ag		San Salvador, C. A.
Nugent, Vaughn Bruce	A&& MM		Los Angeles, Calif.
Nugent, William Francis	CE	I'm	Quincy, Cant.
Nussbaum, Serge Jean	O.D	E 1,	oparks
Oberholzer, Jacob Leonhart	EE	So	Honolulu, Hawaii
O'Brien, Leo Martin, Jr.	A&S	So	Herlong, Calif.
O'Brien, Patricia V			
O'Connell, Richard Kevin	A&S	Sr	Milton, Mass.
O'Hagan, Donald Henry	CE	Jr	Portland, Oregon
Oki, Wataru	A&S	Fr	East Ely
Olesen, Barbara Ann	A&S	Sr	Lovelock

	•		
Name			Home Address
Olguin, Daniel John			
Olinghouse, Kenneth R			
Olmsted, Roger Robertson			
Olsen, Norman Otis			
O'Malia, Thomas H., Jr			
Orlich, Daniel			
Orr, John Alexander			
Orrock, Thomas H.			
Osborne, Lloyd B			
Osborne, William Eugene			
Ott, Emil J. N., III			
Ousley, Liermann Richard			
Owen, Henry Jackson			
Oyarbide, Pela Adele	A&S	Sr	Battle Mountain
Oyarbide, Rose	A&S	Fr	Battle Mountain
Doolsond William Translat	3535	a-	Commente Cult
Packard, William Donald			
Page, Wanda Willyene			
Paille, Harry			
Palmer, Arthur J., Jr			
Palmer, Robert Arthur			
Paneili, Giulio Carlo			
Papadopulos, Emanuel John			
Papaeliou, Vasilios Elias			
Pardee, Barbara Joyce			
Parke, Jack Evan			
Parker, Barbara June			
Parker, Girard			
Parker, James Oakley			
Parker, Laurel Lee			
Parks, Lucile Snider			
Paterson, Robert Andrew			
Patrick, Charles	A&S	So	Newark, N. J.
Patrick, Robert Lloyd	ME	So	$\dots$ Reno
Patterson, Doris	A&S	Sr	Dyer
Patti, John Anthony	A&S	Jr	Girard, Ohio
Payne, Donald Ray	EE	Fr	Las Vegas
Payne, Phillip Wallace	8&S	So	Las Vegas
Pearce, Robert Hesson	CE	Fr	Elko
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	So	Reno
Pelter, Peggy May			
Pence, George Emel, Jr	ИМ	Fr	Susanville, Calif.
Percy, Vivian Joyce			
Perdue, Mary Ellen			
Perez, Joseph Fernando			
Perkins, Jane Hazel			
Persigehl, Richard L			
Peters, Ray Cameron, Jr			
Peters, Stanlibeth			
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Name	College	Classification	Home Address
Petersen, Jacquelyn C	A&S	Sr	Reno
Peterson, Dwight Warren			
Peterson, Laura Leeds			
Pettis, Alice Lillian			
Pettis, Ethel Annie			
Petty, William Don	A&S	Fr	Snarks
Peyron, Maurice Paul			
Pfeiffer, Albert Byron			
Phelan, Phyllis Evelyn			
Phelps, Ray			
Phillips, Rhoda Mae			
Phillips, Wendell James			
Picchi, Ann Marie			
Piccini, Matthew Joseph			
Piccinini, Marian Catherine.			
Piccinini, Richard B	A&D	т	Cariii
Pickens, Carolyn Jean			
Pico, Louis C., Jr.			
Picollo, Marvin Eugene			
Pierce, Stanley William			
Pilkington, Dorothy			
Pinjuv, George Ivan	A&S	Sp	Las Vegas
Plummer, Walter Wm	A&S	So	Carson City
Pontecorvo, Anthony	ME	So	New York, N. Y.
Poole, Doris Beverly	HE	Fr	Sparks
Poolman, Rosemary Gianelli			
Pope, Charles Avery			
Pope, Donald Avery			
Pope, Girdwood, Craig	ММ	So	Alameda, Calif.
Pope, Rachel Martin	A&S	So	Glen Ellyn, Ill.
Poppe, Louis J	A&S	Jr	Reno
Porteous, Marvin Fred			
Porter, Louis Keith	MM	So	Las Vegas
Porter, Robert Day			
Porter, Tad			
Potts, George Francis	Ag	Sr	Reno
Poulakidas, Nick			
Poulsen, Gladys Kunau	A&S	Fr	Reno
Powell, Joan Ann	A&S	Fr.	Las Vegas
Powell, June Ann	HE	Fr	Las Vegas
Powell, June Ann	A&S	Fr	Henderson
Prater, LeRoy Calvin	A&S	Fr	Loyalton, Calif.
Price, Maynard Grant	A&S	Fr	Reno
Price, Michael Akim	MM	Fr	Los Angeles, Calif.
Price, Milo V	A&S	Jr	Yugoslavia
Pridgen, Glenn Orien	A&S	So	Ft. Lauderdale, Fla.
Pringle, John Alex	A&S	Fr	Reno
Pringle, Robert Sheldon			
Proctor, Harold W., Jr	EE	Fr	Sparks
Proctor, Jean Marie	A&S	Sr	Kimberly
Proietti, George Dale	A&S	Fr	Reno
Prugh, Walter Hamilton	A&S	So	San Francisco, Calif.
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Name			Home Address
Puddington, Georgianna			
Pulsiher, Charles Kay			
Putnam, Vernon Guy			
Pyper, Stanley Dean	A&S	Fr	Wells
Quackenbush, Marie Louise.	A&S	Fr	Reno
Quackenbush, Mynard Daryl	eEE	So,	Chamberlain, S. D.
Quilici, Basil Angelo	8&S	Fr	Yerington
Quilici, Theodore	Ag	Fr	Smith
Raarup, Ruth Stapley	23.4	Tre	Bridgeport Conn
Rabenstine, Wallace J. J			
Radovich, Robert			
Raggio, William John, Jr			
Raker, Donnel Ray			
Ramelli, Donald Edwin			
Ramelli, Theodore Ward	-		
Rankin, Robert John			
Rassuchine, Alex Vldemir			
Rastelli, Joe Martin			
Ravve, Abraham			
Raw, Jwood			
Ray, Donald Bradford			
Ray, James Chandler			
Ray, Jane Marilyn			
Ray, Leslie Lund			
Read, Robert Keith			
Reading, George Edward			
Reagor, Vincent West			
Reed, Edward Cornelius			
Reed, George Theodore			
Reed, Thomas Edward			
Reese, Leland Stanford, Jr			
Reeves, Lois Frances			
Reeves, Robert Grier			
Reid, Donald Aldro			
Reifschneider, Olga A			
Reimer, Paul Oscar, Jr			
Reinhardt, Thomas Adolph	ME	Jr	Jasper, Minn.
Reinkin, William A			
Renner, Elizabeth Marie			
Revene, Joseph G			
Reynolds, Betty Jean	A&S	So	Reno
Reynolds, Ralph Edwin	A&S	Sr,	San Francisco, Calif.
Rhodehamel, Jean Charlotte	A&S	Fr.	Boulder City
Rice, Daniel Alan	EE	Sr	Reno
Rice, Elizabeth Anna	A&S	Jr	Reno
Rice, Kenneth Taylor, Jr			
Rice, Robert Marshall			
Richards, Eric Leonard			
Richards, Glen Homer			
Richards, Paul A			
Richards, Walter Everard			
			2

Name	College	Classification	Home Address
Richards, William Evarts			
Richardson, Albert Edward.			
Richardson, Joseph A., Jr			
Richadson, Ralph Nesbit			
Rickenbach, Alta Jean			
Ricker, George Elwood			
Ricketts, Rex Allen, Jr	MM	Sr	Yerington
Riddle, Dale J	A&S	Fr	Lovelock
Riehl, Laurien Eugene			
Rigby, William George			
Riggle, Carl Clayton			
Riggle, Walter Raymond			
Riggs, Homer Lynn			
Riley, Linford Dale, Jr			
Rippe, Ben Kroll			
Risard, Alice Williams	A&S	Sr	Elko
Risard, Martin Hector, Jr			
Rittenhouse, Franklin P. R.			
Rivero, Louis Eugene			
Roberts, Jerry Milton	EE	So	Reno
Robins, Frank W			
Robinson, Carl Maurice			
Robinson, Hampden Disney.			
Rodriquez, Martin			
Rogers, Allen Stuart	ММ	Jr	Berkeley, Calif.
Rogers, Lloyd Alby			
Rogers, Will			
Rollins, William Arthur	A&S	So	Reno
Root, Helene Anne	A&S	So	Reno
*Root, Lloyd Leo, Jr	ММ	Sr	Reno
*Roscoe, Clara Adams	A&S	Sp	Heppner, Ore.
Roscoe, John G	ММ	Sr	Nevada City, Calif.
Rose, Harvey Noel			
Rosenberry, Charlotte Dell.			
Ross, Ann Louise			
Ross, John Thomas	A&S	Fr	Carson City
Rotter, Mary Delores	A&S	Fr	Reno
Rovetti, Melvin Gene			
Rowland, Francis Marion	Ag	Fr	Dovle
Rowley, Janeth Arvilla			
Rowley, Richard Belnap			
Royle, Patricia Margaret			
Rude, Lloyd Earl		-	
Ruebsam, Edith M		Gr	Reno
Rule, Jeanne Ellin	A&S	Fr	Reno
Rummel, William George	A&S	Fr	Munhall Pa
Rupp, Betty Jo	HE	Fr	Rishon Colif
Russell, Pauline Claire	288	Fr	Rouldor City
Russler, Donald Fredrick	MM	So.	Elk Crovo Colif
Ryan, Bill Chatten	A&S		Lag Voreg
Ryan, James Arthur	ME		as vegas Austin
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Name			Home Address
Sadler, Patricia Gloria	A&S	Jr	Reno
Sale, Vera Gertrude	A&S	Sp	Reno
Salemi, Paul John	A&S	Sp	Reno
Salter, Thomas J., Jr			
Samuelson, Beverly Marr			
Sanches, Frank S., Jr	A&S	Fr	Sacramento, Calif.
Sanchez, John	A&S	So	Ruth
Sancic, Charles S	A&S	So	Kent, Ohio
Sanderson, Ida Bess	A&S	So	Elko
Sanford, Gertrude Harriet	НЕ	So	Reno
Sanford, Joanne Lenora	HE	Fr	Reno
Sarasua, Robert Joseph	A&S	So	Reno
Sasenbery, Homer Glenn			
Saulisberry, Charles Nash	Ag	Fr	Chicago, Ill.
Saunders, Nora Lorene	A&S	Sr	Winnemucca
Saurennon, John Marion	A&S	Fr	Reno
Savidge, David	A&S	So	Petaluma, Calif.
Savidge, William, Jr	A&S	Fr	Petaluma, Calif.
Savini, Sam	A&S	Fr	Yerington
Sawyer, John Franklin	A&S	Fr	Sparks
Scanlon, Margaret Mary			
Schaad, Carlyle Dale			
Scharer, Marjorie Maye	A&S	Fr	Las Vegas
Schiller, Jacob			
Schoenfeld, Ernest H., Jr	CE	Fr	Springfield, Mass.
Scholz, Melville Fredrick,.			
Schon, Michael Fredrick	A&S	Fr	Reno
Schulz, Wallace Wendell	A&S	Jr	Westwood, Calif.
Schumacher, Robert T	A&S	Fr.	Reno
Schumacher, Wendell Harr.	isAg	Fr.	Maquoketa, Iowa
Schwartz, Lyman Wayne	A&S	Jr	Paradise Valley
Schwartz, Mary Ellen	A&S	Sr	Goodsprings
Schoffield, Ray Flint	CE	So	Oakland, Calif.
Scofield, Marilyn Bertha			
Scott, Edward St. Clair	ММ	Sr	Santa Ana, Calif.
Scott, James Burton	ММ	Sp	Reno 🎉 🛷 🤲
Scott, Lee Everett	MM	Fr	Elko`l⊅ - ∞ = exp
Scott, Mary Lee	A&S	So	Carson City"
Scott, Elizabeth Leeds	A&S	Fr	Reno
Scruggs, Armena Fritz		Gr	Reno
Serpentino, Lorraine	A&S	Sr,	Reno P
Sewell, Mary Louise			
Shaw, Rondell Bryce			
Shaw, Virginia			
Shawe, Cora Lee			
Shawe, Fred Rhodes			
Sheahan, Daniel Robert			
Sheahan, Horace Patrick			
Sheldon, Wayne Francis			
Shepard, Patricia Ruth			
Shepard, William Edward			

Name	College	Classification	Home Address
Name Sherman, Tho Ted	Ag	Sp	Reno
Sherwood, William Henry			
Shevlin, John Edward	CE	Fr	Reno
Shields, Charles Lester			
Shipaugh, Ruth			
Shoemaker, David Whitman			
Short, Carl Jerry			
Short, Charles Robert			
Sieber, Richard			
Siler, William Millard			
Silliman, Floyd			
Silsby, Donald Dale			
Silsby, Elizabeth Roth		_	
Simon, Beverly Rae			
Simon, Marjorie Marie			
Simons, John Powell			
Simons, William Walter			
Simpson, John Hampton			
Singleton, Robert Addison			
Sinofsky, Kenneth Jack			
Sirkegian, Jacqueline Dora.			
Slattery, William H., Jr			
Sloan, Jane Ann			
Sloan, Loran Gerald			
Smales, Donald William Smales, John Frederick			
Small, James Garfield			
Smart, Clyde S., Jr Smart, Donald Cleveland			
Smart, Doris Andrea Smart, Stanley Hardy			
Smiley, Muriel E Smith, Alfred James	AWD	06	wens
Smith Alva Eugana	A&S	Sp	Sparks
Smith, Alva Eugene	A&B		LaGrange, III.
Smith, Barbara Irene	A&&	80	Sparks
Smith, Carlton Stanley			
Smith, Charles Hogue			
Smith, Donald Floyd		FT	Ely
Smith, Douglas Rex Smith, George Evans	A&D	FT	Riverside, Calif.
Smith, George Evans Smith, Gerald Charles	A&S	FT	Reno
Smith, Horace Emery	A&S	Fr	Wells
Smith, James Howard, Jr			
Smith, James Theodore			
Smith, James Wallace	A&S	F'r	Fallon
Smith, Janet Holland	A&S	So	East Ely
Smith, John William	CE	Jr	Vallejo, Calif.
Smith, LaMar Ralph	A&S	80	Fallon
Smith, Peter Mitchell, Jr	A&S	sp	Keno
Smith, Robert Alfred		Jr	Del Paso Hgts., Cal.
Smith, Ros Wilbert		80	watsonville, Calif.

Name	Collogo	Classification	Home Address
Smith, Ruth Elizabeth			
Smith, Susan			
Smith, William Freeman			
Smithwick, Hubert			
Smithwick, Opal Marie			
Smolinski, Norbert			
Snider, Kenneth Howard			
Snyder, John Alford			
Snyder, Orrin Edwin			
Sodja, William Mathew			
Sommer, Charles R			
Sorensen, Alfred J.			
Sorensen, Arlene Marie			
Sorensen, Della Vienna			
Spell, Jacqueline Patricia			
Spencer, Harry Patric			
*Sperbeck, Joan Ailene			
*Spencer, Wallace Duane			
Spieldoch, Richard Barry			
Spinetti, Eugene Burton			
Spirig, John Joseph			
Spitz, Louis Paul			
Spoon, John David			
Spradling, Delores Irene			
Sprague, Charles Wayne			
Springer, Charles E			
Sprout, Eugene Clifford			
Stafford, Victor Haig			
Standish, Jesse Edward			
Standish, Odette Darrigrand			
Stanley, Theodore Geoffrey			
Steel, Miles F., Jr			
Steele, Gladys A			
			_
Steinbach, Donald Louis			
Stephens, Ialo DeWitt			
Stepro, Charles Everet, Jr			
Sterling, Helen Kathryn			
Stetson, Audrey Lynn			
Stever, John Van Tuyl			
Stewart, Henry			
Stichter, Ryel Roy	EE	So	Reno
Stimac, Paul			
Stone, Kenneth C., Jr			
Stoops, William Milton			
Storey, Albert Earl			
Storey, Grace Margaret			
Storm, Lorraine E			
Story, George Wesley			
Stosic, John Michael			
Straka, Eugene Bernard			
Strang, Robert Crawford	A&S	So	Reno

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	Name	${\tt College}$	Classification	Home Address
	Strange, Verna Mae			
	Stratton, Edgar James			
	Stratton, John H			
	Streeter, Richard Lee			
	Strupp, Marian Ruth			
	Stuck, Raymond Lewis			
,	Stucki, Darlene			
	Stumpf, Theodore Lawrence.			
	Subda, John Stanley			
	Sullivan, Eugene Edward			
	Sullivan, Gerald James			
	Sullivan, John Joseph			
	Sullivan, Nancy Ann	A&S	Sr	Lovelock
	Sullivan, Robert John			
	Sullivan, Timothy Paul			
	Summers, Maclin Butler			
	Summer, Frances			
	Sumner, Robert Charles			
	Sumner, Wilfred Almond	Ag	Fr	Hayward, Calif.
	Sutton, Phyllis Pearl	A&S	Sr	Tulelake, Calif.
3	Swain, Robert Loche	ИИ	Sr	San Gabriel, Calif.
	Swan, Janice E	A&S	Sp	Reno
	Swanson, Harry Brooks	A&S	So	Reno
	Swartz, Forest Keith	A&S	So	Sacramento, Calif.
	Sweatt, Eleanor Frances	A&S	Fr	Reno
	Sweeney, Eileen Cecelia			
	Sweeney, Elizabeth Marie			
	Swenson, David Hamilton			
	Swenson, Marjorie M			
	Swick, Genevieve Marie			
	Swobe, Chester Coe			
	Swobe, John William	A&S	Fr	Reno
	Tabor, Alva	A&S	Fr	Los Angeles Calif
٠.	Talley, Fred Lee, Jr	CE	Jr.	Paris Tenn
	Tallia, John Peter			
	Tam, Charles Ernest	EE	Fr.	San Francisco Calif.
	Tannenbaum, Bert			
	Tanner, Richard Hilton			
	Tarble, Richard Douglas			
	Tarlow, Haskell M			=
	Tavernia, George Philip			
	Tavernia, Marilyn Jeane			
	Tavernia, Robert Rey			
	Taylor, Bonnie Lou			
	Taylor, James John			
	Taylor, James T., Jr			•
	Taylor Marrium Anne			
	Taylor, Robert Arthur			
	Teske, Alice Joan	A&S	So	Reno
	Thacke, Howard Charles			
	Therkelsen, Edward Robert.			

Name	College	Classification	Home Address
Thiercof, Drury Joseph			
Thomas, Carol Jean	A&S	Fr	Sparks
Thomas, Dorothy			
Thomas, James			
Thomas, Norman Lee			
Thompson, Beverly Ann			
Thompson, Charles S., Jr			
Thompson, Craig Dickenson.			
Thompson, Donald Sheldon			
Thompson, Howard W., Jr			
Thomsen, Delbert Eugene			
Thrailkill, Joseph J			
Thronson, Robert Edward			
Tice, Jo Ann			
Ticen, David Harold			
Tieslau, Boyd Edmund			
Tietje, Louanna			
Tilton, Richard Victor			
Timberlake, Alice Grace			
Toczylowski, Edward			
Tognoni, George-Ann Tognoni, Hale C			
Tognoni, Robert Louis			
Tomaselli, Renzo			
Tompson, Robert Norman			
Tonning, Kristian			
Torre, Frank Marion			
Torvinen, Gene Allen			
Torvinen, Jerry Dean			
Torvinen, John William			
Tower, Franklyn James			
Tower, Rae Ellin	A&S	Fr	Ontario, Calif.
Trachock, Richard Matthew			
Tracy, Elizabeth June			
Tracy, Jerome Alden			
Trail, Douglas Howard			
Trail, Jane Littlefield			
Trathen, William Richard			
Traynor, Michael Emmett			
Treacy, Philip Henry, Jr			
Tribble, Willard Bruce			
Tripp, Walter Clifton			
Truscott, Francis James			
Tschopp, Frances Marie			_
Tucker, Ralph M			
Tuckett, Claude M			
Tudor, Mathew Sandord			
Tularski, Lura B			
Tullis, Albert Marks, Jr			
Tulloch, Alice Marie			
Tun, Walace Jee			
Turner, Donald Q	A&S	Fr	Caldwell, N. J.

Name Tuttle, Nona Lee	College	Classification	Home Address
Tuttle, Nona Lee	A&S	Sr	Keno
Tyler, John Charles			
Uhlig, Edward Robert			
Umbenhaur, George Walter.	A&S	Fr	Reno
Upton, Weldon Carl	A&S	Fr	Reno
Ussery, Huling Eakin, Jr	A&S	Sr	Carlsbad, N. M.
Ussery, Patricia Glyn	A&S	Sr	Carlsbad, N. M.
Utley, William Thomas	A&S	Sr	Paducah, Ky.
Van Blitter, John Donald	EE	Fr	Reno
Van Blitter, Yvonne	A&S	So	Reno
van Dyke, Charles W., Jr			
Van Meter, Elaine			
Van Meter, Shirley M			
Van Slyck, Ashley			
Varischetti, Harry Albert			
Vassar, Roscoe Kay			
Vaughn, Robert Oren			
Vawter, Beverley Anne			
Vesco, Paul Joseph			
Vilas, Walter Alan			
Vinocour, Seymour Murray.	<i>es</i> ,	Gr	Los Angeles, Calif.
Vorfeld, Robert Theodore	A&S	Fr.	Honolulu, Hawaii
Vucanovich, George J	A&S	So,	Round Mountain
Wager, Carol Elaine			
Wagner, William Hunt			
Wait, Eugene Jacob, Jr			
Wait, Richard Pomeroy			
Waldman, Richard George			
Walker, Daniel David, Jr			
Walker, David Connie			
Walker, Ramona Marjorie			
Walker, Robert Joel	A & S	So.	spans Fullon
Walldin. Roy Jonas	ARS		Tuloleko Celif
Walpole, John Patrick			
Walsh, James Paulsen			
Walter, Rerbert Guy, Jr			
Wanke, Walter John	ME	Tr	
Ward, Harry Johnson			
Ward, Joseph Leo			
Wardle, Austin Robert, Jr.			
Warren, Donna Louise			
Warren, Norman Francis			
Waterman, Irene Frances			
Waterstraat, Vivian C			
Watkins, Robert Vincent			
Weaver, Paul E., Jr			
Weber, Robert Jefferson			
Webster, Ralph Terrence			
Wedge, John William, Jr			
n cuge, John william, Jr	A&D.	I 1	reno

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Name	College	Classification	Home Address
Wehrle, James Leo	A&S	Jr	Encinitas, Calif.
Welch, Rosemary	A&S	Jr	Tonopan
Welin, Jacques Edward	A&S	Fr	Boone, Towa
Welin, James Henry	A&S	Sr	Boone, 10wa
Weller, Ross			
Welsh, Rev. Maurice			
Welsh, Warren James	Ag	Fr	Yerington
Wengert, Robert Edwin	EE	So	Las Vegas
Wennhold, William F			
Westover, Glenn Eugene	CE	Sp	_El Paso, Texas
Wetzel, Gerald Francis, Jr	A&S	Sr	McCloud, Calif.
Wetzel, Robert Dean	A&S	So	McCloud, Calif.
Wheeler, Houston I., Jr	EE	Fr	Boulder City
Whelan, Beverly Brown	A&S	Jr	Los Angeles, Calif.
Whelan, Robert John	Ag	Sr	Reno
Whitaker, Raymond Lee	CE	Sp	Gardnerville
White, Robert Steven	Ag	Fr	Blue Diamond
White, Roy David	ME	Sr	Loyalton, Calif.
Whitford, Fred William	ММ	So	Grass Valley, Calif.
Whitmer, Philip Francis	A&S	So	Palo Alto, Calif.
Whitmire, John Thomas			
Whitney, Scott Cameron			
Whitworth, Betty Jane			
Whitworth, Edith Frances			
Whomes, Donald Earl			
Wigg, Arthur Edward			
Wikstrom, Julia Elizabeth			
Wiley, Madge			
Willes, Fred Clark			
Willett, Roger Vincent			
Williams, Barbara E			
Williams, Frank			
Williams, Harry James			
Williams, James Templeton			
Williams, John Anthony			
Williams, Kenneth Charles			
Williams, Mercedes Sarah			
Williams, Warren Edward			
Williams, William Dangbers			
Wilson, Ernest Franklin			
Wilson, Frank Whitman			
Wilson, Gene Downey			
Wilson, Jacquelyn			
Wilson, James			
Wilson, Kenneth Carl			
Wilson, Lois Frances			
Wilson, Patricia Anne		J f	Las vegas
Wilson, William Randolph			
Wilson, Yvonne Tennyson	HE	FT	Keno
Wilton, Hugh, Jr	M.M	Sr	Las Vegas

Name		Classification	
Winkel, Chester George			
Winn, Billie Rae	A&S	Sr	Beverly Hills, Calif.
Winsor, Melvin Murkins			
Winterowd, Walter Ross			
Wirsching, Joseph Edward			
Wirsching, Wayne S	ME	Fr	Reno
Wise, Nevada Jack	ME	Fr	Minden
Withers, Janet	A&S	Fr	Reno
Witte, John Edgar	CE	Sr	Eureka
Wittwer, Donna	A&S	So	Reno
Wolford, Raymond	A&S	Fr	Reno
Wolford, Ronald Eugene	CE	So	Bishop, Calif.
Wong, Henry Q			
Wood, Donald Eugene			
Wood, William Bourne			
Woodard, Donald Allan			
Woodgate, Alfred Melvin	CE	Sr	Carson City
Woodworth, Harley Robert.			
Works, Byron Wendell			
Wright, James J			
Wright, Dichard Ford		E 1	Al illui
Wright, Richard Earl			
Wright, Walter Edwin, Jr			
Wulff, Jack Goodman			
Wunderlich, Raymond E			
Wyatt, Harold Brown			
Wyness, Gerald Bruce	A&S	So	Boulder City
Yapp, James Binder	MM	80	Los Angeles Calif
Yates, Floyd Meredith, Jr			
Yeakey, Janice Margaret			
Yee, Layton			
Yenter, Jo Ann			
Yim, Billie			
Yim, Florence			
Yim, Robert Earl			
Yori, George Eugene			
York, Kenneth Stewart			
Yorty, Robert Bell			
Youell, Nathan Dale			
Young, Barbara Clare			
Youtz, Robert Charles			
Yparraguirre, Daniel L	A&S.	Fr	Gardnerville
Yrueta, Evelyn Dorothy	A&S.	So	Winnemucca
Yturbide, Bonifacio Vincen	tA&S.	Jr	Reno
Zappettini, George	Λœ	Tu	Current
Zenklusen, William Henry.			
Zeno, Ernest			
Zippmann, William M	A&S.	ET	Unicago, 111.
Zorio, Louis			
Zorzakis, Mary			
Zunino, Olga Laiolo		Gr	Reno

# SUMMER SESSION, 1947

Aalde, KaareSparks	Borghi, Lillian LSparks
Abbott, Virginia JLas Vegas	Bower, FlorencePittsburgh, Pa
Affleck, Harold WReno	Bowers, Millard RFallon
Aldrich, CatherineFernley	Bowes, William K
Allen, BabetteReno	San Francisco, Calif.
Allen, Morris EReno	Boyle, KathrynReno
Arak, HarryLos Angeles, Calif.	Bradley, Mary AliceReno
Arbogast, Patricia	Braito, FredRend
Nevada City, Calif.	Brinkerhoff, WilliamSparks
Archer, James FTopaz, Calif.	Britt, LyndaFallon
Arnold, BinneyReno	Brown, Betty JReno
Ashby, MazieEly	Brown, CherrillMiami, Ariz.
Azevedo, PhyllisSacramento, Cal.	Brown, EleanorReno
Bachich, Carolyn H	Brown, FrederickReno
Waterman, Calif.	Brown, Raymond R
Bachigalupi, Frank JReno	Pasadena, Calif.
Bailey, EileenYerington	Brown, Stanley HReno
Baker, John RYerington	Brown, VanceBoulder City
Baker, JuliaReno	Brozo, JohnReno
Baker, RichardMina	Brunton, Arthur FMcGill
Ball, Gwendoline MLas Vegas	Brunton, GeorgeReno
Banks, KathrinaSanta Cruz, Cal.	Bryant, RobertLas Vegas
Barbieri, Aurelio AReno	Buchanan, JessieInyokern, Cal.
Barger, FloydPerkins, Okla.	Burkhalter, PatriciaReno
Barker, Ronald TReno	Burkin, MargaretHenderson
Barrett, Lewis SLas Vegas	Burr, ElizabethLas Vegas
Bartlett, Grace O	Burt, Chester AGoldfield
San Francisco, Calif.	Butler, Roberta
Bashista, JosephBarnesboro, Pa.	Santa Maria, Calif.
Bass, Ellis SLoyalton, Calif.	Byrd, LucilleReno
Bates, Ramona Reno	Cade, FredRichmond, Calif.
Batjer, Grace N. Smith	Cain, Darrel SReno
Baumann, William HReno	Calkin, AnnabelleSparks
Beals, GlendoraMulberry, Ind.	Callahan, MariellenReno
Beaman, George BYerington	Cammerano, Augustine
Benham, MerleCarson City	Campbell, Mildred WFallon
Bennett, GeorgeTonopah	Campbell, Robert E
Bergmann, VirginiaSparks	
Berry, OliveSparks Bevandich, LouisReno	
Bieroth, EllenMountain City	Campbell, Shirley Fernley
Birks, Angelina EReno	Cannan, RitaReno
Birks, WilmaReno	Cannon, ErnieEly
Bishop, Vivien WWells	Canonic, FlorenceVerdi
Bjerke, J. WTwin Valley, Minn.	Caprio, TheresaReno
Black, BerkeleyReno	Carll, LouiseReno
Black, Lorne S. Reno	Carlson, Charles T.
Black, MaryTungsten	Walker, Minn.
Black, MorayReno	Carmichael, PatriciaLas Vegas
Blanchard, GloriaKenmore, N. Y.	Carr, ElizabethReno
Blaser, DoraElko	Carter, ElizabethLas Vegas
Boland, Monty FReno	Carter, John HReno
Boldra, Helen CHawthorne	Cedarholm, JosephReno
Bonar, Roy TLordsburg, N. M.	Chamberlain, JohnReno
Bondley, George BLas Vegas	Los Angeles, Calif.
Booth, Marian VLas Vegas	Chapin, Lelah TReno
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Wall Professional Control of the Con	
Chapman, CarolineSparks	Doerr, Dale WDes Moines, Ia.
Chapmen, LoringReno	Dolan, William MCarson City
Chavez, BenjaminReno	Donaldson, Gene WReno
Cherry, VirginiaSanta Ana, Cal.	Dondero, Raymond S
Chiara, HerbertBattle Mountain	San Francisco, Calif.
Chico, HazelFallon	Dondero, Roy KReno
Childress, Sidney	Dorsey, DessieSilver City
Choy, JohnSan Francisco, Cal.	Doyle, Alice RuthReno
Christensen, IngvartReno	Doyle, RitaLong Beach, Calif.
Churchill, FlorenceReno	Doyle, William TReno
Churn, BrowningReno	Drakulich, MichaelMcGill
Cicala, KathrynElko	Drewette, FrederickReno
Clark, KennethReno	Drown, Lora JReno
Clarkson, James	Duffy, Charles CSparks
E. Rutherford, N. J.	Dulgar, Amma Sparks
Clayton, HenryReno	Duncan, Robert JReno
Clem, John W	Dunn, Katherine GSparks
Frankfort Hts., Ill.	Eather, JosephineEureka
*Clevenger, AnnReno	Early, Laura ADeeth
Cody, MaryHendersonville, N. C.	Ebert, John WReno
Coe, CharlesBurlingame, Calif.	Ebert, William HReno
Coe, ConwayReno	Eckley, Edith KReno
Coggins, LucilePetaluma, Calif.	Edlind, Gladys UReno
*Cohn, Joan	Edner, Valline HDavis Dam
Cedarhurst, L. I., N. Y.	Elder, Willard DNichols, Ia.
Collins, Jack CSparks	Eliades, Jordan Reno
Conklin, WilliamLoyalton, Calif.	Ellis, Maxine BReno
Cooney, Donald GReno	England, Dolores ECorona, Cal.
Coonrad, Warren L	Ernst, MargaretReno
Long Beach, Calif.	Evans, June HReno
Coverston, EthelynFallon	Falconeri, GennaroReno
Crandall, PatriciaLas Vegas	Fenderson, Bobbie
Crawford, JeanYerington	Chevy Chase, Md.
Creveling, RobertReno	Fenley, Frank OOroville, Calif.
Cunha, GeorgeReno	Figley, Ethel P. Reno
Cunningham, EdithReno	Flavin, Thelma Lamoille
Cutter, PatriciaOakland, Calif.	Flickinger, Mrs. Olive
Danstrom, Gertrude E	Sloan
Stillwater, Okla.	Foster, BarbaraReno
Darrigrand, OdetteBattle Mt.	Fouch, Laura JUnknown
Daseler, Jack EOroville, Calif.	Foulkes, Harvey B., JrReno
Davidson, Donald E	Fox, Dorothy G El Centro, Cal.
Coachella, Calif.	Fox, Otto M., JrArcadia, Calif.
Davis, James CSan Diego, Cal.	Free, Raymond BPioche
Davis, Joseph S. Boulder City	French, Donald EWendell, Id.
Davis, Stanley NCeres, Calif.	Fricks, Calvin AGardnerville
Davis, VivianLas Vegas	Fritch, LewisBerkeley, Calif.
Daz, LilyMontello	Fritch, PhyllisBerkeley, Calif.
Dean, EmilyJuneau, Alaska	Fulton, Jack RReno
Dearing, Laura LLasVegas	Gaddo, Frank GReno
Denny, John ASan Rafael, Cal.	Galli, Albert AReno
Denevi, Mae ASparks	Galli, MichaelElko
Diehl, Jack FReno	Gallien, EdnaReno
Diehl, John WReno	Gamble, John RSparks
Dieringer, Marie AReno	Gandolfo, Helen BElko
Dilts, Margaret WCarson City	Gardella, Raymond FReno
Dixon, DeloresZephyr Cove	Garretson, Willis LReno

Α.	
Gartler, Seymour Reno	Helm, Ruth MReno
Gavitt, William MReno	Henley, William J., Jr
Geyer, Charles WReno	Virginia City
Gibson, BarbaraSt. Louis, Mo.	Henriod, AgnesCaliente
Gibson, Janet Eureka	Hersey, Anna GCarson City
Gibson, Robert W. Reno	Hildebrand, MamieReno
Gillies, InezReno	Hill, Richard M. Reno
Glore, CharleyUpland, Calif.	Hill; Stanley G. Reno
Godbold, MargaretYerington	Hires, William EReno
Goebel, Russell C. Reno	Holland, Richard JReno
Goen, Paul KReno	Holmes, Edna Las Vegas
Gomes, Eddie FReno	Holloway, John A.
	Los Angeles, Cal.
Gonder, Lois (Mrs.)Wellington	
Gonfiantini, NelloReno	Hooper, William HReno
Goodrich, Kenneth EHenderson	Houser, Robert W. Reno
Gottardi, Edna W	Howard, LaVerne Fallon
Loyalton, Calif.	Hubbard, Charmaine M
Gould, Harry KReno	Virginia City
Graham, LenaHollister, Calif.	Huddleston, Jack EReno
Graham, MichaelYreka, Calif.	Hudson, Sarah SReno
Granata, Evo AReno	Hulme, Gilbert NReno
Graul, Albert RJersey City, N.J.	Hunt, Charles L. Los Angeles. Cal.
Gray, Raymond GYerington	Hunt, Josephine Reno
Gregg, Raymond ECarson City	Hunt, ThelmaSanta Marie, Cal.
Griffin, KathleenReno	Hunter, Anne Reno
Griffith, George LThornton, Cal.	Huntley, FlorenceLoyalton
Grimes, JosephTucson, Ariz.	Hyde, Orson W. Reno
Griswold, Morley WReno	Illerich, Daniel GReno
Grotegut, Eugene KSparks	Jemison, Rex ALas Vegas
Grover, RobertaSharp Park, Cal.	Jensen, Mary Sparks Jessop, Glenn McGill
Grover, Theodore WReno	Jessop, Glenn McGill
Guess, Joyce LLoyalton, Cal.	Johnsen, Melvin B. T. Reno
Gunderson, CarolReno	Johnson, Arthur WReno
Haley, GloriaLitchfield, Cal.	Johnson, Emmett C
Hall, Robert A	Los Angeles, Cal.
San Bernardino, Cal.	Johnson, HermanAlturas, Cal.
Haman, Howard JReno	Johnson, JoylinLas Vegas
Hamilton, Bernice GReno	Johnson, Walter BKimberley
Hamlin, A. SPorterville, Cal.	Johnston, Dalton M. Sparks
Hanley, Robert EReno	Joice, Fred AWinnemucca
Hansen, Anna LuPortland, Ore.	Jones, Olga B. Fallon Jungquist, Yvonne
Hansen, MarilynVerdi	Jungquist, Yvonne
Hansen, RubelReno	Beverly Hills, Calif.
Hardin, Eleanor GReno	Kafoury, SamReno
Harford, Mary JArvin, Cal.	Kafoury, Sam
Harp, Merrie JoHerlong, Cal.	Kastenas, Boleslaus WReno
Harrigan, William AReno	Kean, Marjory Carson City
Harrington, GladysWinnemucca	Kean, Marjory Carson City Kehoe, John J. Reno
Harris, Edith CReno	Woith Donald Ext. Roston Mass
Harris, RuthReno	Keller, Harold P. Reno
Hartor, Robert FReno	Kelley, Marjorie J. Eureka
Harwood, Clara AWinnemucca	Kelley, Terrence D. Reno
Haskell, Charles T., JrFallon	Keller, Harold P. Reno Kelley, Marjorie J. Eureka Kelley, Terrence D. Reno Kentner, Earl Hollywood, Calif.
Hawkins, BettyReno	Kennedy, Frances W
Hawkins, Gordon LLas Vegas	Susanville, Calif.
Hawley, LawrenceLas Vegas	Kimonling Vincinia Done
Heckethorn, Howard EReno	King, John T. Reno
	★ App

Kinneberg, DorothyBattle Mt.	McClurkin, Marjorie E
Kinney, JosephReno	Chico, Cal.
Klimaszewski, Theodore	McFadden, Albert JReno
Garfield, N. J.	McFarland, Billy JReno
Kline, DavidSacramento, Cal.	McGowan, Roger JHawthorne
Klosterman, ESan Diego, Cal.	McLean, John BReno
Knudsen, Julia SWells	McMichael, JunerwandaReno
Kramer, GladysReno	McNaughton, MaryReno
Kruse, Alice SPioche	McQueen, Effie J. (Mrs.)Reno
Kulinovich, AnnePhoenix, Ariz.	McQuiston, MargueriteLamoille
Lamberson, Ellis EHawthorne	McVey, Phillip BReno
Lane, John WDanville, Va.	Mead, OrvalCarmel, Cal.
Langer, Steven Reno	Means, Lawrence GReno
Larson, BruceManhattan	Meiser, Vernon MReno
Lawson, RobertReno	Melton, Jean ZMarysville, Cal.
Lazzarone, AlbertReno	Mentaberry, FaustoReno
Lee, Corle EleanorReno	Messing, Regina EHollister, Cal.
Lee, Edward E., JrReno	Metzger, VirginiaReno
Leer, IdaHenderson	Meyer, Robert IReno
Leisure, Carl WReno	Mickelson, Merton MFallon
Leon, Frederick MReno	Mieding, John F
Leonard, Lionel GReno	Los Angeles, Cal.
Leupold, Ralph P. Reno	Milburn, John FPhiladelphia, Pa.
Levack, Samuel S. Reno	Miles, Evelyn MReno
Lindeman, Dwight J	Miles, Richard LReno
Oak Park, Ill.	Miller, John RCarson City
Liotard, AlphonsineReno	Miller, Wendell AReno
Liotto, John RMonterey, Cal.	Millinger, Jack Sparks
Lokke, Freda B. Sparks	Mills, Donald E. Reno
Lokke, Gerald F. Sparks	Mirabelli, Michael AReno
Long, Walter ELas Vegas	Missenberger, Luceille
Lopez, Luis HEl Salvador, C. A.	Seattle, Wash.
Loring, BerthaReno	Mitchell, MarySparks
Lowry, Albert MWinnemucca	Mitton, Charlotte HReno
Lowry, Gus WMcComb, Miss.	Molk, Ashley JReno
Luce, HarrietReno	Molk, Marguerite CReno
Lundgren, EdnaLas Vegas	
Lusich, George J. Sparks	Monday, Cerrita CSparks
Lytle, F. Wayne Pioche	Montgomery, HazelWells
Macaulay, Shirley MReno	Montgomery, RachelGolconda
MacGillivray, ChristyeReno	Montgomery, Thomas HReno
Mack, Robert CReno	Moody, Norma JHawthorne
Mack, Ruth WCleveland, Ohio	Moore, Gail M. Reno
Magee, George FReno	Moore, Joseph EWinnemucca
Marean, John H. Reno	Moore, Robert JWinnemucca
	Morbey, Andrew EReno
Marisquirena, Josephine Elko	Morey, Beverly MReno
Martin, Barbara Elko	Morganroth, GoldaCarlin
Martin, Rachel EGlen Ellyn, Ill.	Morris, AgnesBoulder City
Martinson, John EReno	Morris, NoraTonopah
Mason, John ESacramento, Cal.	Morrison, Robert AReno
Mathis, Joe RReno	Mortara, Rita AReno
Matteoni, Silvano JSparks	Moseley, Margaret MReno
Maxwell, MorganTucson, Ariz.	Muguira, FrancesReno
McCartney, Lyle Elko	Mullin, MargaretAustin
McClure, HarrietteReno	Murdock, AliceElko

Murdough, Charles EReno	Politzer, Jerome FReno
Murphy, Frederick AReno	Pope, Girdwood CAlameda, Cal.
Murray, Matthew J., Jr	Potts, George FReno
Lawrence, L. I., N. Y.	Powning, LillianVerdi
Mustard, Donald LReno	Preece, Howard C. Reno
Mygatt, PeteReno	Proctor, Jean M. Kimberly
Myers, Robert T. Reno	Quackenbush, Maynard DReno
Nannini, FlorindoReno	Radovich, RobertReno
Naughton, John ESparks	Raker, Alice (Mrs.)Henderson
Neese, BeatriceHawthorne	Rastelli, JoeReno
Neese, Hallie LReno	
Nispel, Louise H. Ruth	Ravve, AbrahamLos Angeles, Cal.
	Rawson, Louise Reno
Nord, Earnest WReno	Ray, BarbaraCaliente
Norman, Harriett ACarmel, Cal.	Ray; James CSteamboat
Novoa, Fidel ASan Salvador	Reed, Edward CReno
Oberholzer, Jacob L., Jr	Regoli, Paul JAlameda, Cal.
Honolulu, T. H.	Reichert, Erida L
O'Brien, Leo M., JrReno	San Francisco, Cal.
Olds, Ruth EKimberly	Reid, Ethel FBakersfield, Cal.
Olsen, EvelynLoyalton, Cal.	Reid, FlorenceBakersfield, Cal.
Olsen, Norman OReno	Reinero, Edith MReno
Olszowy, Amelia KScranton, Pa.	Reinhardt, Thomas A
Orlich, DanielChisholm, Minn.	Jasper, Wyo.
Owen, Richard DSan Rafael, Cal.	Reinken, WilliamReno
Owens, OlgaTruckee, Cal.	Remington, AlmaMcGill
Oyarbide, Pela AReno	Revene, Joseph GReno
Packard, William DReno	Reynolds, BettyReno
Palmer, Robert AReno	Rice, Kenneth T., JrReno
Panelli, GiulioVerdi	Richards, Chester. Pleasanton, Cal.
Papaelion, VasiliosReno	Rider, VirginiaWells
Pardee, BarbaraSacramento, Cal.	Ricker, George EReno
Parker, GirardReno	Riley, Ella SYerington
Parker, JohnShelbyville, Tenn.	Riley, Linford D., JrYerington
Parker, Laurel LeeReno	Rinehart, Jim El Reno, Okla.
Paterson, Robert AReno	Rising, Vernon KRochester, N.Y.
Patrick, CharlesBedford, N. J.	Rockholm, NormanReno
Pearson, HaroldReno	Robertson, Donald ACarson City
Pearson, Robert MCarmel, Cal.	Robison, BethEly
Peddicord, Edith EReno	Rogers, Lloyd AReno
Peirson, James MInyokern, Cal.	Rohlfing, DorothyReno
Penny, Roy WReno	Rollins, William AReno
Percy, Joyce Reno	Root, Lloyd L., JrReno
Perkins, Lorna GRio Vista, Cal.	Rosaschi, GloriaReno
Peters, Ray C., Jr.	Rotholtz, Adelyn MReno
Petersen, ConstanceReno	Rovetti, Melvin GReno
Petersen, JacReno	Rowcliffe, AliceStillwater
Peterson, Sybil EBouse, Ariz.	Rowe, Margaret EMcGill
Pettis, Ethel AReno	Rubio, WilliamNewark, N. J.
Phillips, Edward A	Rude, Lloyd ESparks
Blacksville, West Va.	Rule, Mary ALas Vegas
Phillips, Robert AReno	Rummel, WilliamReno
Piecini, MatthewReno	Rupp, Louise MReno
Pickard, Edith WSearchlight	Ryan, Bill CLas Vegas
Pidgeon, Gertrude L	Sadler, PatriciaReno
White Plains, N. J.	Sale, Vera GReno
Pilkington, DorothyReno	Saling, MiloReno
i fixington, Dorochyteno	

Sancic, Charles SReno	Tarble, Richard D. Reno
Sander, Lida EFallon	Tarlow, Haskell MReno
Scarselli, GeneSparks	Tavernia, Marilyn JSparks
Schaad, Carlyle DReno	Taylor, Robert LKimberley
Scholz, MelvilleFallon	Teel, Elva Fallon
Scoffield, RayReno	Thacke, Howard CNelson
Shane, Grace MReno	Thiercof, Drury JReno
Shaver, DorisSparks	Thompson, Carol WReno
Shaw, ClariceElko	Thompson, Gladys E
Sherwood, WilliamReno	San Francisco, Calif.
Short, Charles Reno	Thompson, John W.
Shoupe, Geraldine	Santa Fe, N. M.
Klamath Falls, Ore.	Thompson, Merlynn NReno
Silliman, Floyd	Thompson, NormanMt. City
Singleton, BeulahReno	Thomsen, Delbert EReno
Singleton, Robert A. Reno	Thrailkill, Joseph JReno
Sloan, Jane AReno	Tilton, RichardEvansville, Ind.
Smith, Lucille EReno	Toczylowski, Edward
Smith, Robert A	San Diego, Calif.
Del Paso Hts., Cal.	Torre, Frank M. Reno
Smollet, JeanNevada City, Cal.	Tower, Franklyn J. Reno
Snyder, Gertrude N	Towles, Mamie
Loyalton, Calif.	Tracy, Jerome Reno
Solt, Richard H. Reno	Trowbridge, Marjorie AReno
Solt, RosalieReno	Trulove, Velva CSparks
Spirig, J. J	Tuckett, Claude M
Spitz, Louis P. Reno	St. Anthony, Idaho
Springer, Gloria LReno	Tudor, Mathew SThorne
Stafford, Victor HReno	Turchun Coto Non York N. Y
Standish, Jesse Reno	Turchun, SetaNew York, N. Y.
St. Cyr, Edith L. Fallon	Turner, Blanche Reno
Stensil, Mae Sloan	Turner, Helen Fallon
Stephens, Ruth LVerdi	Uhlig, Edward RReno
*Stephens, Stella FVisitor	Ussery, Huling E., JrReno
Stevens, MarieSchurz	Utley, Wm. TReno
Stever, John V. T. Reno	Vacchina, Elmer RReno
Stewart, Frank W	Van Slyck, AshleyReno
Morro Bay, Calif.	Vaughan, BettyReno
Stewart, Henry Lovelock	Vinocour, S. M. Reno
Stewart, OraHenderson	Wallace, Ruth MReno
Stone, Ronald B	Walsh, ElizabethBronx, N. Y.
Hutchinson, Kan.	Wanke, Walter JSparks
Straka, Eugene BReno	Ward, Myrtle E. Bonne Terre, Mo.
Strupp, MarianDerry, Pa.	Washington, LamarReno
Stuck, RaymondReno	Wathen, Marilyn E. Reno
Sullivan, BobReno	Watson, Florence L. Reno
Sullivan, Mary K. C. Reno	Weaver, Lawrence G
Sullivan, NancyLovelock	Des Moines, Ia.
Sullivan, VernLas Vegas	Webb, Donald B. Reno
Swartz, Carl RMartinez, Calif.	Weber, Robert J. Reno
Swartz, Forest KReno	Webster, R. TerrenceReno
Sweeney Eilann C	Welden, Lois YReno
Sweeney, Eileen CReno	Weir, LaVerne MSparks
Swick Genevieve Tuscarora	Welch, RosemaryTonopah
Swick, Genevieve Eureka	Wetzel, Jerry FReno
Tacke, Frederick AReno	Wetzel, Robert DMcCloud, Cal.
Tallia, John P	Whitaker, RaymondReno
Sutter Creek, Calif.	Whitford, Fred WReno

Whitney, Scott C	Reno
Whittemore, R. G	Carson City
Wilcox, Mary	Reno
Williams, Claire A	Elko
Williams, Isabelle	Elko
Williams, Kenneth C	Fernley
Williams, Mercedes	Las Vegas
Wilson, Alta E	Reno
Wilson, Ernest F	Fallon
Wong, Henry	Reno
Wood, William B	
Woodworth, Harley R	Reno

Worden, Mabel LEdneyville, N. C.
Wright, Myrtle ISusanville, Cal.
Wyatt, Harold BReno
Yates, Floyd MReno
Yorty, Robert BLas Vegas
Youell, Nathan DSparks
Young, Wilbur D Carson City
Zang, ElizabethReno
Zappettini, George Reno
Zeno, ErnestWaltham, Mass.
Zoloth, George D
San Francisco, Cal.

# ENROLLMENT SUMMARY 1947-1948

raduate Students			
College of Arts and Science		105	
Seniors			
Juniors			
Sophomores			
Freshmen			
Specials		68	1.2
COLLEGE OF ENGINEERING			
ckay School of Mines-			
Seniors		20	
Juniors		32	
Sophomores		41	
Freshmen Specials		60 6	
	-		-
hool of Civil Engineering—		0	
SeniorsJuniors		$\frac{8}{12}$	
Sophomores		$\frac{12}{29}$	
Freshmen		$\frac{25}{56}$	
Specials		5	
hool of Electrical Engineering—	-		
Seniors		10	
Juniors		$\frac{10}{22}$	
Sophomores		38	
Freshmen		72	
Specials		$\frac{72}{2}$	
chool of Mechanical Engineering—	=		
Seniors		10	
Juniors		20	
Sophomores			
Freshmen		53	
	-		
COLLEGE OF AGRICULTURE			
Seniors		2	
JuniorsSophomores		5	
Freshmen		13	
Specials		38 9	
epartment of Home Economics-			
Seniors		1	
Juniors		- 1	
Sopnomores		10	
Freshmen		32	
otal University			1
Enrollment of Men Enrollment of Women	* * * * *		_
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			_
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