

CATALOGUE

UNIVERSITY OF WASHINGTON
FOR 1921-1922

ANNOUNCEMENTS
FOR 1922-1923



SEATTLE, WASHINGTON

Seattle
University of Washington Press
1922



NOTICE

The University and its various schools and departments reserve the right to change rules regulating admission to the University and its schools, and any other regulations affecting the student body, or the granting of degrees, and such regulations shall go into force whenever the proper authorities may determine, and shall apply not only to prospective students, but also to those who may, at such time, be matriculated in the University. The University also reserves the right to withdraw courses at any time.

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THE UNIVERSITY CALENDAR

1922-1923

AUTUMN QUARTER

Examinations for admission and for exemption from Freshman English,
.....Wednesday, Thursday and Friday, September 27, 28 and 29.
Registration days.....Monday, October 2; Tuesday, October 2
Instruction begins.....Wednesday, October 4, at 8 a. m.
President's Annual Address.....Friday, October 6, at 10 a. m.
Regular Meeting of the Faculty.....Tuesday, October 24, 4 p. m.
Mid-quarter Scholarship Reports.....Friday, November 11
Thanksgiving Recess
.....Wednesday, Nov. 29, 6 p. m. to Monday, Dec. 4, 8 a. m.
Regular Meeting of the Faculty.....Tuesday, December 19, 4 p. m.
Examinations for Admission.....
.....Wednesday, Thursday and Friday, December 20, 21 and 22
Instruction ends.....Friday, December 22, 6 p. m.

WINTER QUARTER

Registration day.....Wednesday, January 3
Instruction begins.....Thursday, January 4, 8 a. m.
Regular Meeting of the Faculty.....Tuesday, January 30, 4 p. m.
Mid-quarter Scholarship Reports.....Friday, February 9
Washington's Birthday, holiday.....Thursday, February 22
Regular Meeting of the Faculty.....Tuesday, March 13, 4 p. m.
Examinations for Admission.....
.....Monday, Tuesday and Wednesday, March 19, 20 and 21
Instruction ends.....Wednesday, March 21, 6 p. m.

SPRING QUARTER

Registration day.....Tuesday, March 27
Instruction begins.....Wednesday, March 28, 8 a. m.
Regular Meeting of the Faculty.....Tuesday, April 17, 4 p. m.
Campus Day.....Friday, April 20
Mid-quarter Scholarship Reports.....Friday, May 4
Junior Day.....Saturday, May 26
Memorial Day, holiday.....Wednesday, May 30
Regular Meeting of the Faculty.....Tuesday, June 12, 4 p. m.
Examinations for Admission.....
.....Wednesday, Thursday and Friday, June 13, 14 and 15
Instruction ends.....Friday, June 15
Class Day and Alumni Day.....Saturday, June 16
Baccalaureate Sunday.....Sunday, June 17
Commencement.....Monday, June 13

SUMMER QUARTER

Registration day.....Tuesday, June 19
Instruction begins.....Wednesday, June 20, 8 a. m.
Independence Day, holiday.....Wednesday, July 4
First term ends, second term begins.....Friday, July 27
Instruction ends.....Friday, August 31

THE BOARD OF REGENTS

WILLIAM A. SHANNON, President.....	Seattle
Term ends March, 1923	
RUTH KARR McKEE, Vice-President.....	Olympia
Term ends March, 1923	
WINLOCK W. MILLER	Seattle
Term ends March, 1926	
ROGER R. ROGERS	Spokane
Term ends March, 1926	
WERNER A. RUPP	Aberdeen
Term ends March, 1927	
OSCAR A. FECHTER	Yakima
Term ends March, 1928	
JAMES H. DAVIS	Tacoma
Term ends March, 1928	

WILLIAM MARKHAM, Secretary to the Board

COMMITTEES OF THE BOARD OF REGENTS

March 1922 to March 1923

AUDITING AND FINANCE.....	Davis (chairman), Shannon, Miller
BUILDINGS AND GROUNDS.....	Miller (chairman), Rupp, Shannon
COOPERATIONS.....	Shannon (chairman), McKee, Davis
DEMONSTRATION FOREST.....	Rupp (chairman), Fechter, Miller
EDUCATION.....	McKee (chairman), Fechter, Rogers
LANDS.....	Rupp (chairman), Rogers, McKee
METROPOLITAN BUILDING CO.....	Fechter (chairman), Rupp, Miller
PUGET SOUND BIOLOGICAL STATION.....	Davis (chairman), Fechter, Rogers
STUDENT WELFARE.....	Rogers (chairman), McKee, Davis

OFFICERS OF ADMINISTRATION

THE UNIVERSITY

HENRY SUZZALLO, Ph.D., LL.D.	President of the University Education Hall
JOHN THOMAS CONDON, LL.M.	Dean of Faculties Education Hall
HERBERT THOMAS CONDON, LL.B.	Comptroller Education Hall
EDWARD NOBLE STONE, A.M.	Registrar Education Hall
EDWIN BICKNELL STEVENS, A.M.	Executive Secretary Education Hall
JAMES EDWARD GOULD, A.M.	Dean of Men Education Hall
ETHEL HUNLEY COLDWELL, A.M.	Dean of Women Education Hall

THE COLLEGES AND SCHOOLS

DAVID THOMSON, B.A.	Dean of the College of Liberal Arts Denny Hall
HENRY LANDES, A.M.	Dean of the College of Science Science Hall
STEPHEN IVAN MILLER, LL.B., A.B.	Dean of the College of Business Administration Commerce Hall
FREDERICK ELMER BOLTON, Ph.D.	Dean of the School of Education Education Hall
CARL EDWARD MAGNUSSON, Ph.D., E.E.	Dean of the College of Engineering Engineering Hall
IRVING MACKKEY GLEN, A.M.	Dean of the College of Fine Arts Music Building
JOHN NATHAN COBB.	Director of the College of Fisheries Fisheries Hall
HUGO WINKENWERDER, M.F.	Dean of the College of Forestry Forest Products Laboratory
MATTHEW LYLE SPENCER, Ph.D.	Director of the School of Journalism Commerce Hall
JOHN THOMAS CONDON, LL.M.	Dean of the School of Law Commerce Hall
WILLIAM ELMER HENRY, A.M.	Director of the Library School Library
MILNOR ROBERTS, A.B.	Dean of the College of Mines Mines Hall
CHARLES WILLIS JOHNSON, Ph.C., Ph.D.	Dean of the College of Pharmacy Bagley Hall
FREDERICK MORGAN PADELFORD, Ph.D.	Dean of the Graduate School Denny Hall

OFFICERS OF ADMINISTRATION

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ASSISTANT ADMINISTRATIVE OFFICERS

JAMES GARFIELD FLETCHER, A.B.	Vocational Secretary
ROBERT WILLIAM BENDER, A.B.	Editorial Secretary
THOMAS LATIMER KIBLER, Ph.D.	Assistant Dean, College of Business Administration
MAY WARD, A.M.	Assistant Dean of Women
LILLIAN BROWN GETTY.	Secretary to the President
MAX HIPKOB	Assistant Purchasing Agent
WILLIAM BEACH JONES, A.B.	Cashier
ALMEE WILSON	Secretary to the Comptroller
SARA NORRIS MARK, A.B.	Assistant Registrar
BETH GILLEY, B.B.A.	Secretary to the Registrar
LOIS J. WENTWORTH.	Secretary to the Dean of the Graduate School
EDITH THOMAS.	Acting Assistant Dean of Women

LIBRARY STAFF

WILLIAM ELMER HENET, A.M., (Indiana)....	Librarian and Director of the Library School
CHARLES WESLEY SMITH, A.B., B.L.S., (Illinois)	Reference Librarian and Associate Professor of Library Economy
EMMA PEARL McDONNELL, A.B., (Washington)	Periodicals Librarian
ROBINSON SPENCER, A.B., (Wesleyan), B.L.S., (Illinois)	Catalogue Librarian and Instructor in Library Economy
ELLEN F. HOWE, A.B. (Washington), (Carnegie Library School)	Assistant Reference Librarian and Instructor in Library Economy
LYDIA MCCUTCHEON, A.B. (Iowa), (Washington Library School)	Assistant Reference Librarian
**BARBARA BOLLES COITEX, A.B. (Boston), B.S. (Simmons)	First Assistant Cataloguer
MARIE ALPHONSO, A.B. (Nebraska)	Circulation Librarian
MARGUERITE PUTNAM, A.B. (Washington)	Order and Accession Librarian
EDNA STONEBROOK, A.B. (California), (Los Angeles Library School)	First Assistant Circulation Librarian
MARJORIE JEANETTE ZINKIE, A.B. (Washington); (New York Public Library)	Acting First Assistant Cataloguer
ELVA BATCHELLER, A.B. (Washington)	Assistant in Circulation
VIOLA HANSEN, B.L.S. (Washington)	Assistant in Circulation
FRANCES ALLEN TOWN, A.B. (College of Puget Sound)	Assistant in Cataloging
AVERT WRAGE, B.Ed. (Washington)	Assistant in Cataloging

THE MUSEUM

FRANK STEVENS HALL	Director of the Museum
CLARENCE JOHN ALBRECHT, A.B. (Iowa)	Curator of Zoological Exhibits
SAMUEL F. RATHBUN	Honorary Curator of Birds
MARTHA FLAHAUT, A.B.	Assistant

THE EXTENSION SERVICE

EDWIN AUGUSTUS START, A.M.	Director
---------------------------------	----------

ENGINEERING EXPERIMENT STATION

CARL EDWARD MAGNUSSON, Ph.D.	Director
-----------------------------------	----------

UNITED STATES ARMY RESERVE OFFICERS' TRAINING CORPS

CHARLES LEONARD PHILLIPS	Colonel, U.S.A., Retired
SAMUEL WHELAN NOYES	Lieut.-Colonel, Infantry, D.O.L.
WILLIAM PLATT	Lieut.-Colonel, U.S.A., Retired
THOMAS BRUCE ESTY	Lieut.-Colonel, U.S.A., Retired
HENRY CLINTON KRESS MUEHLBERG	Major, Air Service, D.O.L.
WILLIAM DAVID FRAZER	Major, C.A.C., D.O.L.
EDWARD BENNETT DENNIS	Major, C.A.C., D.O.L.
KEITH SULNER GREGORY	Major, U.S.A., Retired
HAROLD PRIEST	Captain, Infantry, D.O.L.
WILLIAM ALLEN HALE	Captain, Infantry, D.O.L.
JOHN EDWARD NOLAN	First Lieutenant, Infantry, D.O.L.
BRYAN SEWALL HALTER	First Lieutenant, Infantry, D.O.L.
HARRY B. WHITE	Warrant Officer, U.S.A.
EARL THOMAS	First Sergeant, D.E.M.L.
EMIL H. WUNDERLICH	Quartermaster Sergeant, Retired, U.S.A.
WALTER LANG	Sergeant, D.E.M.L.
CHARLES BOYLE	Sergeant, D.E.M.L.

**Absent Winter and Spring Quarters.

UNIVERSITY OF WASHINGTON

RAY A. BAILEY	Sergeant, D.E.M.L.
LESTER A. KENT	Sergeant, D.E.M.L.
WILLIAM G. PALMS	Sergeant, D.E.M.L.
HARRY BECKETT	Sergeant, D.E.M.L.
CHARLES FREEMAN	Private, First Class, D.E.M.L.
WILLIAM H. HONEAS	Private, First Class, D.E.M.L.
VERNON W. PAYNE	Private, First Class, D.E.M.L.
PATRICK J. MAUGHAN	Private, First Class, D.E.M.L.

UNIVERSITY OF WASHINGTON STATION OF THE UNITED STATES FOREST SERVICE

CONRAD W. ZIMMERMAN, A.B. Engineer in Timber Tests, in charge

NORTHWEST EXPERIMENT STATION UNITED STATES BUREAU OF MINES

CLYDE E. WILLIAMS, B.S.	Superintendent
EDWARD P. BARRETT, B.S.	Metallurgical Chemist
CLARENCE E. SIMS, B.S.	Electrometallurgist
EARL R. MCMILLAN, B.S.	Mining Engineer
BYRON M. BIRD, B.S.	Junior Mining Engineer
ABVID E. ANDERSON, B.S.	Junior Chemist
JOHN C. SCHONING	Foreman, Mine Safety Station

STATE CHEMIST

CHARLES WILLIS JOHNSON, Ph.C., Ph.D.	State Chemist
JEAN ROBIN WILKES, B.S.	Assistant State Chemist and Bacteriologist
GEORGE HERBERT NEEDHAM	Assistant State Chemist

UNITED STATES VETERANS' BUREAU REHABILITATION DIVISION

GLENN E. HOOVER, LL.B. In Charge

BUILDINGS AND GROUNDS

FREDERICK ELWELL	Superintendent
NORMAN DONALD MORRISON	General Foreman
SANDY MORROW KANE	Engineer
L. R. KETTENRING	Electrician
STANLEY O. CARPENTER	Head Carpenter
GEORGE WARNER	Head Gardener

UNIVERSITY DINING AND RESIDENCE HALLS

RUTH MARGARET LUSBY, A.M. Supervisor of Dining Halls

UNIVERSITY HEALTH SERVICE

DAVID CONNOLLY HALL, M.D.	University Health Officer
LILIAN COLLISON IRWIN, M.D.	Medical Examiner for Women
MAUDE REEDER, R.N.	Resident Nurse
AGNES JACOBSEN, R.N.	Public Health Nurse

UNIVERSITY FACULTY

In this list the names of the faculty are arranged in six groups—professors, associate professors, assistant professors, associates, lecturers, and instructors—followed by the names of the assistants and teaching fellows. In each of the six groups the names occur in the order of academic seniority. An alphabetical list of the faculty is given on page 15.

HENRY SUZZALLO, President of the University, *ex-officio* Chairman.

EDWARD NOBLE STONE, Registrar, *ex-officio* Secretary.

PROFESSORS

HENRY LANDES
EDMOND STEPHEN MEANY
J. ALLEN SMITH
CAROLINE HAVEN ORR
JOHN THOMAS CONDON
TREVOR KINCAID
FREDERICK MORGAN PADELFORD
MILNOR ROBERTS
WILLIAM SAVERY
FREDERICK ARTHUR OSBORN
DAVID THOMSON
CHARLES WILLIS JOHNSON
PIERRE JOSEPH FRISIN
THEODORE CHRISTIAN FRYE
ROBERT EDOUARD MORITZ
CARL EDWARD MAGNUSSON
HARVEY LANTZ
EVERETT OWEN EASTWOOD
WILLIAM ELMER HENRY
DAVID CONNOLLY HALL
HERBERT HENRY GOWEN
OLIVER HUNTINGTON RICHARDSON
IVAN WILBUR GOODNER
IRVING MACKAY GLEN
EDWIN AUGUSTUS START
CHARLES CHURCH MOORE
HENRY KEMTZER BENSON

JOHN WEINKIRL
HUGO WINKENWERDER
VERNON LOUIS PARRINGTON
FREDERICK ELMER BOLTON
EDWIN JOHN VICKNER
EFFIE ISABEL RAITT
WILLIAM FRANKLIN ALLISON
STEVENSON SMITH
WILLIAM PIERCE GORSUCH
CLARK PRESOTT BISSETT
†ETHEL HUNLEY COLDWELL
ALLEN ROGERS BENHAM
LESLIE JAMES AYER
STEPHEN IVAN MILLER, JR.
FRED CARLETON AYER
JOHN NATHAN COBB
CHARLES LEONARD PHILLIPS
WILLIAM MAURICE DEHN
HOWARD WOOLSTON
§MATTHEW LYLE SPENCER
GEORGE MCPHAIL SMITH
BURT PEBBONS KIRKLAND
THOMAS KIBLER
HOWARD THOMPSON LEWIS
JAMES EDWARD GOULD
**CHARLES EDWIN WEAVER

ASSOCIATE PROFESSORS

LOREN DOUGLAS MILLIMAN
THOMAS KAY SIDDEY
EDWARD McMAHON
CHARLES WESLEY SMITH
†ARTHUR WILSON LINTON
GEORGE SAMUEL WILSON
GEORGE WALLACE UMPHREY
OTTO PATZER
CHARLES WILLIAM HARRIS
VANDERVEER CUSTIS
EDGAR ALLEN LOEW
JOSEPH DANIELS
EDWARD GODFREY COX
ALLEN FULLER CARPENTER
HENRY LOUIS BRAKEL
GEORGE BURTON RIGG
CARL GOULD

*WILLIAM DANIEL MORIARTY
HARRY EDWIN SMITH
ARTHUR MELVIN WINSLOW
HARRY BUREY
JOHN LOCKE WORDSWORTH
ELIAS TRIST CLARK
§WILLIAM EDWARD COX
HOWARD HALL PRESTON
CHARLES GOGGIO
RODERICK DUNCAN MCKENZIE
ROBERT MAX GARRETT
FRIEDRICH KURT KIRSTEN
ERIC TEMPLE BELL
HERMAN VANCE TARTAR
ROY MARTIN WINGER
CORNELIUS OSSEWARD

ASSISTANT PROFESSORS

†EDWIN JAMES SAUNDERS
GEORGE IRVING GAVETT
ELI VICTOR SMITH
HARVEY BRUCE DENSMORE
CLARENCE RAYMOND COREY
GRACE GOLDENA DENNY
FRED WASHINGTON KENNEDY
ERNEST OTTO ECKELMAN

CHARLES LOUIS HELMLINGE
JOHN WILLIAM HOTSON
THERESA SCHMID McMAHON
LOUIS IRVING NEKIBK
FRANCES DICKET
MORITZ ROSEN
ALBERT FRANK VENINO
SAMUEL HERBERT ANDERSON

†Absent on leave 1921-22.

*Absent Fall Quarter, 1921-22.

**Absent Winter and Spring Quarters, 1921-22.

§Absent Spring Quarter, 1921-22.

‡Died, January 26, 1922.

ASSISTANT PROFESSORS (continued)

SERENO BURTON CLARE
 †MACY MILLMORE SKINNER
 CURT JOHN DUCASSE
 BROR LEONARD GRONDAL
 FRED HARVEY HEATH
 †LESLIE FORREST CURTIS
 †GEORGE HENRY JENSEN
 EDWIN RAY GUTHRIE
 ††FRANK DEMETRIUS HAYDEN
 CARL PAIGE WOOD
 THOMAS GORDON THOMPSON
 †DELBERT NICKSON
 VIRGINIA CUNNINGHAM PATTY
 ELIZABETH AMERY
 HEWITT WILSON
 MARY EMMA GROSS
 WILLIAM FRAZER
 IRA LEONARD COLLIER
 GEORGE EDWARD GOODEFRED
 CHARLES CULBERTSON MAY
 JOHN CHARLES RATHBUN
 CURTIS TALMAGE WILLIAMS
 ELDIN VERNY LYNN

JOSEPH BARLOW HARRISON
 RUDOLF HERBERT ERNST
 ROBERT WILLIAM JONES
 MARTHA KOHNE
 JAMES GEORGE ARBUTHNOT
 HORACE GUNTHERF
 PAUL WASHINGTON TERRY
 KEITH SUMNER GREGORY
 LOUIS PETER DE VRIES
 EDWARD BENNETT DENNIS
 WILLIAM PLATT
 HENRY CLINTON MUEHLENBERG
 SIDNEY DERBY MAIZE
 LESLIE SPIER
 HARLAN CAMERON HINES
 JAKOB AALL OTTESEN LARSEN
 HENRY STEPHEN LUCAS
 THOMAS BRUCE ESTY
 HAROLD PRIEST
 SAMUEL WHEELAN NOYES
 WILLIAM ALLEN HALE
 KATHERINE VAN WINKLE PALMER

LECTURERS AND ASSOCIATES

HARVEY GLENN
 JOSEPH GRATTAN O'BRYAN
 FREDERICK POWELL
 CONRAD ZIMMERMAN
 LILIAN COLLISON IRWIN
 LILIAN BLOOM
 WINNIFRED SUNDERLIN HAGGETT
 MILDRED STRUBLE
 JOHN VICTOR FARRAR
 JAMES WEHN
 EUGENIA WORMAN
 HERMANOS MULLEMEISTER
 FRED FALCONER WEID
 AMBROSE PATTERSON
 ETHEL SANDERSON RADFORD
 MARJORIE WHIPPLE
 JAMES McCONAHEY
 WILLIAM BENNETT HENDERSON
 EMUEL JACOB FORMAN
 CHAUNCEY WERNECKE
 EDWIN LEONARD STRANBERG
 PAMELIA JONES
 SYLVIA KERRIGAN
 GERTRUDE BROWNING
 ALICE HENSON ERNST
 BERTHA ALMEN VICKNER
 EERA DAHLIN

EARL WEST
 †WILLIAM ALBERT HAMILTON
 ELIZABETH SOULE
 CLARENCE EDMUNDSON
 EDWARD LEADER
 JEANNE MERCIER
 CARL ZENO DRAVES
 WALDO SEMON
 OLIVE CLINTON MCCABE
 ELIZABETH WRIGHT
 CLYDE MYRON CRAMLET
 RACHEL ELIZABETH HAMILTON
 ELLA MARIA STICKELS
 ENOCH BAGSHAW
 SHELDON LATTI GLOVER
 HORACE DONALD MCGIBB
 FRANK CHESTER VAN DE WALKER
 VIVIAN MCGILL
 ROBERT LEE MATHEWS
 ALEXANDER CRIPPEN ROBERTS
 RAYMOND FORREST FARWELL
 JAMES POSTLEWAIT ROBERTSON
 FRANK CRANE DAVIS
 LAWRENCE FISHER
 ARTHUR RUDOLPH JERBERT
 EVERHARDT ARMSTRONG

INSTRUCTORS

SAMUEL THOMAS BRATTIE
 SANDY MORROW KANE
 WALTER BELL WHITTLESBY
 LOYD LEROY SMAL
 FRANK JOSEPH LAUBE
 HAROLD OGDEN SIXSMITH
 ALLETTA GILLETTE
 ALBERT PORTER ADAMS
 LOUISE VAN OGLE
 ANNETTE EDENS
 ROBERT FULTON MCCLELLAND
 JAMES BAKER HAMILTON
 GORDON RUSSELL SHUCK
 MARTHA DRESSLAR
 FORREST JACKSON GOODRICH
 †ARTHUR WILLIS BARTON
 CLINTON LOUIS UTTERDACK
 ROBINSON SPENCER
 ELLEN HOWE

†CLARENCE LOUIS ANDERSON
 RALPH MASON BLAKE
 GEORGE KROHNER
 WILLIAM RONALD WILSON
 HARRY JOHN MCINTYRE
 JOSEPH TAYLOR
 JOHN HOWARD THOMPSON
 ROBERT QUIKOTE BROWN
 HOMER SWART GREGORY
 CHRIS GREENSIDE DOBSON
 FORREST CHARLES DANA
 LOU EASTWOOD ANDERSON
 ELEANOR CAMPBELL
 EILENE FRENCH
 GLENN ARTHUR HUGHES
 KARL ELIAS LEIB
 RUTH MARGARET LUSBY
 FREDERICK ANSTEN McMILLIN
 WILLARD HENRY ELLER

†Died, Feb. 14, 1922.

††Resigned, March 31, 1922.

†Absent on leave 1921-22.

UNIVERSITY FACULTY

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INSTRUCTORS (continued)

GEORGE WHITWELL	ELGIN ROSCOE WILCOX
SARGENT POWELL	JACK ROEBUCK TOLMIE
HENRY STAGER	MARY LAURA AID
HERBERT ARTHUR STURGES	FRANK HARTMOND HAMAOK
OSCAR ELDREDGE DRAPER	MILLETT HENSHAW
JOHN GERALD DRISCOLL, JR.	OMEGA HILTON
MAURICE HICKLIN	GEORGE SHERMAN SMITH
ELLA JANE SIEGINSOHN	ADA TILLEY
WILLIAM WOODBRIDGE EDDY	ABCHIE MERLE TRUESDELL
BYRON TOWNS MCMINN	BRYAN SEWALL HALTER
ROBERT HAROLD EDMONDS	JOHN EDWARD NOLAN
GINO VINCENT MEDICI DE SOLENNI	WILLIAM RUSSELL
VON VALFRAN TARBELL	KENNETH PEARCE
ALBERT KALIN	ZALIA JENCKS GAILLY
GEORGE LESTER HOARD	
CLARENCE LESTER WHITE	

ASSISTANTS

LOUISE DOW BENTON, B.Mus.	Music
CLARA BURCH, B.Mus.	Music
CONSTANCE OLDS BURNHAM, A.B.	English
ELVA CLAUSEN, A.B.	Gatzert Foundation
ELMA DICK	Accompanist in Music
JOHN CARL ELY, B.F.A.	Fine Arts
HELEN FERRYMAN, B.Mus.	Music
MARJORIE FORCHEMER, A.B.	Physical Education
ARTHUR HERMAN, A.B.	Architecture
PAUL HIGGS, B.S.	Physics
GLENN HOOVER, LL.B.	Debating Coach
HOWARD HART HUNGERFORD	Debating Coach
WILLIAM JEFFERSON	Golf Teacher
ZENITH JONES, A.B.	English
BETH MCCAUSLAND, A.B.	English
LESLIE MARSHAND	English
KIRSTEN NEWBERRY, B.S.	Physics
MARTIN NORRIS, B.S.	Fisheries
ELIZABETH STARR, B.S.	Bacteriology
ANNA ALFRED STORM	Design
CLAYTON SULLIVAN	Mechanical Engineering
MYRON HENRY WETZEL	Woodshop
MADGE WILKINSON, M.S.	Gatzert Foundation
FLORENCE BEGGH WILSON, B.M.	Music

TEACHING FELLOWS

JULIA FISHER, A.B.	Philosophy
OLIVE REEVES FOSTER, A.B.	French
LENA HARTIG, B.S.	Botany
GERTRUDE KRAFFT, A.B.	German
KORO PEPPER, B.S.	Mathematics
DENNIS TROTH, B.Ed.	Education
HELEN WERBY, B.S.	Zoology
LEONA SUNDQUIST, A.B.	Botany
FERNLEY TATUM, A.B.	Chemistry
JOHN SULLIVAN, B.S.	Chemistry
LILA DUDLEY, B.S.	Chemistry
WILLIAM DOLL, A.B.	English
PAUL ELLSWORTH, A.B.	Psychology
DON MACFARLANE, B.S.	Psychology
CLINTON HUMBERT, B.S.	Zoology
HARRY KEVIN, A.B.	Political Science
ARTHUR TROWD, B.B.A.	Accounting
ROBERT BACHELOR, A.M.	Economics
WILLIAM DICKERSON, B.B.A.	Accounting
FRED FELLOWS, A.B.	Money and Banking
GEORGE WILCOX, M.B.A.	Economics
HELEN FULTON, B.S.	Bacteriology
EDITH JOHNSON, B.S.	Bacteriology
RAY TUBBS, B.S.	Bacteriology
GRANT BUTTERBAUGH, A.B.	Accounting
EVA S. CARR, B.S.	Pharmacy
LOIS CLARK, A.M.	Botany
GERMAINE MERCIER, B.S.	French

UNIVERSITY OF WASHINGTON

PAULINE JONES, B.S.Spanish
 RUBY BOHART, B.S.Bacteriology
 RUTH DAVIS, B.S.Pharmacy

GRADUATE SCHOLARS

ROY HALL, A.B.Business Administration
 WILLIAM SPENCER, A.B.Business Administration

RESEARCH FELLOWS

WILLIAM McCULLOUGH, B.S.Mining (Coal Washing)
 BERNARD MARVIN LARSEN, B.S.Mining (Electrometallurgy)
 JOHN HERBERT ALDEN, B.S.Mining (Electrometallurgy)
 ALBERT LEE BENNETT, B.S.Mining (Ceramics)

LORETTA DENNY FELLOWS

ELIAS THORLIEF RUND ARNESEN, A.B.History
 LOIS WILFRED GRIFFITHS, B.S.Mathematics
 WILLIAM CHAPIN COLLINS, A.B.Journalism

ARTHUR A. DENNY FELLOWS

GEORGE ELWIN LARGE, B.S.Civil Engineering
 HOWARD RALPH GOOLD, A.B.Education
 ALEXANDER HOWARD MCNEELY, A.B.History
 HELEN LOTHIAN ARKLEY, B.S.Pharmacy
 ESTHER MOHR, A.B.English
 LYALL WESTLEY ZICKRICK, B.S.Metallurgy

DU PONT FELLOWSHIP

WILLIAM CAVANAUGH MCINDOE, B.S.Chemistry

ALPHABETICAL LIST OF THE UNIVERSITY FACULTY

HENRY SUZZALLO	President of the University A.B., Stanford, 1899; A.M. Columbia, 1902; Ph.D., 1905; LL.D. California, 1918.
ALBERT PORTER ADAMS	Instructor in Music
MARY LAURA AID	Instructor in Physical Education A.B., Wisconsin, 1920.
WILLIAM FRANKLIN ALLISON	Professor of Municipal and Highway Engineering B.S., South Dakota State College, 1895; B.S., (C.E.), Purdue, 1897; C.E., Cornell, 1904.
ELISABETH AMERY	Assistant Professor of Home Economics B.S., Wisconsin, 1913.
CLARENCE LOUIS ANDERSON	Instructor in Fisheries B.S., Washington, 1917.
LOU EASTWOOD ANDERSON	Acting Instructor in Physical Education Valparaiso; Washington.
SAMUEL HERBERT ANDERSON	Assistant Professor of Physics A.B., Park College, 1902; A.M., 1903; Ph.D., Illinois, 1912.
JAMES ARBUTHNOT	Director of Physical Education for Men B.S., Kansas State College, 1904.
EVERHARDT ARMSTRONG	Lecturer in Journalism B.S., Delaware, 1910.
FRED CARLSTON AYER	Professor of Education B.S., Upper Iowa University, 1902; M.S., Georgetown University, 1905; Ph.D., Chicago, 1915.
LESLIE JAMES AYER	Professor of Law B.S., Upper Iowa University, 1899; J.D., Chicago, 1906.
ENOCH BAGSHAW	Associate in Physical Education B.S., (Met.E.), Washington, 1908.
ARTHUR WILLIS BARTON	Instructor in Chemistry Ph.G., Washington, 1897; A.B., 1902; Ph.D., Northwestern, 1918.
SAMUEL THOMAS BEATTIE	Instructor in Woodwork
ERIC TEMPLE BELL	Associate Professor of Mathematics A.B., Stanford, 1904; A.M., Washington, 1908; Ph.D., Columbia, 1912.
ALLEN ROGERS BENTHAM	Professor of English A.B., Minnesota, 1900; A.M., 1901; Ph.D., Yale, 1905.
HENRY KREITZER BENSON	Professor of Chemical Engineering A.B., Franklin and Marshall, 1889; A.M., 1902; Ph.D., Columbia, 1907.
CLARK PRESCOTT BISSETT	Professor of Law A.B., Hobart College, 1896.
RALPH MASON BLAKE	Instructor in Philosophy A.B., Williams College, 1911; A.M., Harvard, 1912; Ph.D., 1915.
LILIAN BLOOM	Associate in Physical Education Graduate, Medical Gymnastic Institute, Stockholm.
FREDERICK ELMER BOLTON	Professor of Education and Dean of the School of Education B.S., Wisconsin, 1898; M.S., 1896; Ph.D., Clark, 1898.
HENRY LOUIS BRAEKL	Associate Professor in Engineering Physics A.B., Olivet, 1902; A.M., Washington, 1905; Ph.D., Cornell, 1912.
ROBERT QUIXOTE BROWN	Instructor in Civil Engineering B.S., (E.E.), Washington, 1916.
GERTRUDE BROWNING	Associate in English A.B., Cornell, 1910; A.M., Columbia, 1914.
ELEANOR CAMPBELL	Instructor in Design School of Industrial Arts, Pennsylvania Museum, Philadelphia.
ALLEN FULLER CARPENTER	Associate Professor of Mathematics A.B., Hastings, 1901; A.M., Nebraska, 1909; Ph.D., Chicago, 1915.
ELIAS TREAT CLARK	Associate Professor of Forestry Ph.B., Yale, 1907; M.F., 1908.
SERENO BURTON CLARK	Assistant Professor of Latin and Greek A.B., Michigan, 1901; Ph.D., Harvard, 1907.

- JOHN NATHAN COBBProfessor of Fisheries and Director of the College of Fisheries
 ETHEL HUNLEY COLDWELLDean of Women
 B.L., Mills College, 1894; A.M., Stanford, 1899.
- IRA LEONARD COLLIER.....Assistant Professor of Civil Engineering
 B.S., (C.E.), Washington, 1913; C.E., 1917.
- JOHN THOMAS CONDON..Professor of Law, Dean of the School of Law, and Dean of Faculties
 LL.B., Michigan, 1891; LL.M., Northwestern, 1892.
- CLARENCE RAYMOND COREYAssistant Professor of Mining and Metallurgy
 E.M., Montana State School of Mines, 1905; A.M., Columbia, 1915.
- EDWARD GODFREY COXAssociate Professor of English
 A.B., Wabash, 1899; A.M., Cornell, 1901; Ph.D., 1906.
- WILLIAM EDWARD COXAssociate Professor of Business Administration
 A.B., Texas, 1909; A.M., 1910.
- CLYDE MYRON CRAMLETAssociate in Mathematics
 A.B., Walla Walla College, 1915; M.S., Washington, 1920.
- LESLIE FORREST CURTISAssistant Professor of Electrical Engineering
 B.S., Tufts, 1910; M.S., (E.E.), Washington, 1916.
- VANDEVEER CUSTISAssociate Professor of Economics
 A.B., Harvard, 1901; A.M., 1902; Ph.D., 1905.
- EBBA DAHLIN.....Associate in History
 A.B., Washington, 1919.
- FOREST CHARLES DANAInstructor in Civil Engineering
 B.S., (C.E.), Washington, 1914.
- JOSEPH DANIELSAssociate Professor of Mining Engineering and Metallurgy
 S.B., Massachusetts Institute of Technology, 1905; M.S., Lehigh, 1908.
- PEARCE CRANE DAVISLecturer on Accounting (autumn and winter quarters)
 C.F.A., 1914.
- WILLIAM MAURICE DEHNProfessor of Organic Chemistry
 A.B., Hope, 1893; A.M., 1896; Ph.D., Illinois, 1903.
- EDWARD BENNETT DENNIS, Major, C.A.C., U.S.A., Assistant Professor of Military Science
 and Tactics
 B.S., Case School of Applied Science, 1907; LL.B., Cleveland Law School, 1910.
- GRACE GOLDENA DENNYAssistant Professor of Home Economics
 A.B., Nebraska, 1907; A.M., Columbia, 1919.
- HARVEY BRUCE DENSMOREAssistant Professor of Greek
 A.B., Oxford, 1907.
- LOUIS PETER DE VRIESAssistant Professor of Romanic Languages
 A.M., Wisconsin, 1911; Ph.D., 1913.
- FRANCIS DICKEY.....Assistant Professor of Music
 Graduate, Iowa State Teachers College, 1901; B.S., Columbia, 1912; A.M., 1913.
- CHRIS GRENSIDE DOBSONInstructor in Civil Engineering
 B.M., Montana, 1913.
- OSCAR ELDRIDGE DRAPER.....Instructor in Business Administration
 M.Acct., Vories Business College.
- CARL ZENO DRAVESAssociate in Chemistry
 B.S., (C.E.), Washington, 1917.
- MARTHA ESTELLA DRESSLAR.....Instructor in Home Economics
 B.A., Southern California, 1913; B.S., Washington, 1917; M.S., Teachers College,
 Columbia, 1918.
- JOHN GERALD DRISCOLL, JR.Instructor in Accounting
 A.B., Stanford, 1918; LL.B., 1920.
- CURT JOHN DUCASSEAssistant Professor of Philosophy
 A.B., Washington, 1908; A.M., 1909; Ph.D., Harvard, 1912.
- EVERETT OWEN EASTWOODProfessor of Mechanical Engineering
 C.E., Virginia, 1896; A.B., 1897; A.M., 1899; S.B., Massachusetts Institute of
 Technology, 1902.
- ERNEST OTTO ECKELMANAssistant Professor of German
 A.B., Northwestern (Watertown, Wis.), 1897; B.L., Wisconsin, 1898;
 Ph.D., Heidelberg, (Germany), 1906.
- WILLIAM WOODBRIDGE EDDYInstructor in History
 A.B., Princeton, 1911; A.M., Harvard, 1914.
- ANNETTE EDENS.....Instructor in Drawing
 New York School of Fine and Applied Arts, Columbia.

- ROBERT HAROLD GRAY EDMONDSInstructor in Mechanical Engineering
B.S., Whitman, 1915.
- CLARENCE EDMUNDSONAssociate in Physical Education
B.S., Idaho, 1910.
- WILLARD HENRY ELLERInstructor in Physics
B.S., (E.E.), California, 1914.
- ALICE HANSON ERNSTAssociate in English
A.B., Washington, 1912; A.M., 1913.
- RUDOLF HERBERT ERNSTAssistant Professor of English
A.B., Northwestern (Watertown, Wis.), 1904; A.M. Harvard, 1911; Ph.D., 1920.
- THOMAS BRUCE ESTY, Lieutenant Colonel, U.S.A., Retired, Assistant Professor of Military
Science
College of the City of New York.
- VICTOR JOHN FARRARAssociate in Historical Research
A.B., Wisconsin, 1911; A.M., 1912.
- RAYMOND FORREST FARWELLAssociate in Maritime Commerce
A.B., California, 1920.
- LAWRENCE FISHERLecturer on Geology (winter quarter)
A.B., Ohio Wesleyan, 1900.
- EMUEL JACOB FORMANExtension Lecturer on Water Transportation
- WILLIAM DAVID FRAZER, Major, C.A.C., U.S.A., Assistant Professor of Military Science and
Tactics
B.S., (C.E.), Michigan Agricultural College, 1909.
- PIERRE JOSEPH FREINProfessor of Romanic Languages
A.B., Williams, 1892; Ph.D., Johns Hopkins, 1899.
- EILENE FRENCHInstructor in Music
B.Mus., Washington, 1916; A.M., Columbia, 1920.
- THEODORE CHRISTIAN FRYEProfessor of Botany
B.S., Illinois, 1894; Ph.D., Chicago, 1902.
- ZALIA JENOKS GALEYActing Instructor in Chemistry (spring quarter)
B.S., Chicago, 1913; M.S., Washington, 1916; Ph.D., Yale, 1921.
- ROBERT MAX GARRETTAssociate Professor of English
A.B., Idaho, 1902; A.M., Washington, 1903; Ph.D., Munich, 1909.
- GEORGE IRVING GAVETTAssistant Professor of Mathematics
B.S., (C.E.), Michigan, 1893.
- ALLETTA GILLETTEExtension Instructor in English
A.B., Smith, 1907; A.M., Washington, 1911.
- IRVING MACKAY GLENProfessor of Music; Dean of the College of Fine Arts
A.B., Oregon, 1894; A.M., 1897.
- HARVEY GLENNLecturer in Assaying of Bullion
B.S., Iowa State College.
- SHELDON LATTI GLOVERAssociate in Geology
B.S., Washington, 1919.
- CHARLES GOGGIOAssociate Professor of Romanic Languages
A.B., Harvard, 1910; A.M., Wisconsin, 1914; Ph.D., Yale, 1919.
- IVAN WILBUR GOODNERProfessor of Law
LL.B., Nebraska, 1897.
- FOREST JACKSON GOODRICHInstructor in Pharmacy
Ph.C., Washington, 1913; B.S., 1914; M.S., 1917.
- GEORGE EDWARD GOODSPEED, JR.Assistant Professor of Geology
B.S., (Min.E.), Massachusetts Institute of Technology, 1910.
- WILLIAM PIERCE GORSUCHProfessor of Dramatic Art
A.B., Knox, 1898.
- CARL FRYELINGHUYSEN GOULDAssociate Professor of Architecture
A.B., Harvard, 1898.
- JAMES EDWARD GOULDProfessor of Maritime Commerce and Dean of Men
B.Ph., Washington, 1896; B.Pd., 1898; M.A., Harvard, 1907.
- HERBERT HENRY GOWENProfessor of Oriental History, Literature and Institutions
St. Augustine's College (Canterbury); D.D., Whitman College, 1912.
- HOMER EWART GREGORYInstructor in Business Administration
A.B., Washington State College, 1914; A.M., Chicago, 1917.
- KRITH SUMNER GREGORY, Captain, Infantry, U.S.A., Assistant Professor of Military Science
and Tactics
Graduate, U.S. Military Academy, 1903.

- BEOR LEONARD GRONDALAssistant Professor of Forestry
A.B., Bethany (Kansas), 1910; M.S.F., Washington, 1913.
- MARY EMMA GROSSDirector of Physical Education for Women
A.B., Goucher College, 1912; A.M., Columbia, 1915.
- HORACE GUNTHERAssistant Professor of Zoology
Ph.B., Hamline, 1905; A.B., Stanford, 1909; A.M., Kansas, 1912.
- EDWIN RAY GUTHRIEAssistant Professor of Psychology
A.B., Nebraska, 1907; A.M., 1910; Ph.D., Pennsylvania, 1912.
- WINNIFRED SUNDERLIN HAGGETTAssociate in English
A.B., Olivet, 1897; A.M., Michigan, 1898.
- WILLIAM ALLEN HALE, Captain, Inf., D.O.L., Assistant Professor of Military Science and
Tactics
Graduate, American College of Physical Education.
- DAVID CONNOLLY HALLUniversity Health Officer and Professor of Hygiene
Ph.B., Brown, 1901; Sc.M., Chicago, 1903; M.D., Rush Medical College, 1907.
- BRYAN SEWALL HALTER, First Lieutenant, Infantry, D.O.L., Instructor in Military Science
and Tactics
Graduate, U.S. Military Academy, 1918.
- FRANK HARTMOND HAMACKInstructor in Business Administration
LL.B., Georgetown, 1916.
- JAMES BAKER HAMILTONInstructor in Civil Engineering
Washington.
- RACHEL ELIZABETH HAMILTONAssociate in French
B.L., Whitman, 1910.
- WILLIAM ALBERT HAMILTONAssociate in Mathematics
A.B., College of City of New York, 1901; Cornell, 1902.
- CHARLES WILLIAM HARRISAssociate Professor of Civil Engineering
B.S., (C.E.), Washington, 1903; C.E., Cornell, 1905.
- JOSEPH BARLOW HARRISONAssistant Professor of English
A.B., Washington, 1910; A.B., Oxford, 1913.
- FRANK DEMETRIUS HAYDENAssistant Professor of Civil Engineering
B.S., (C.E.), Massachusetts Institute of Technology, 1902.
- FRED HARVEY HEATHAssistant Professor of Chemistry
B.S., New Hampshire, 1905; Ph.D., Yale, 1909.
- CHARLES LOUIS HELMINGAssistant Professor of Romance Languages
B.Ph., Wallace College (Ohio), 1911; A.M., Washington, 1915.
- WILLIAM BENNETT HENDERSONLecturer on Business Administration
A.B., Princeton Collegiate Institute, 1891; LL.B., Cumberland, 1892;
LL.M., George Washington University, 1906.
- WILLIAM ELMER HENRYLibrarian and Director of the Library School
A.B., Indiana, 1891; A.M., 1892.
- MILLETT HENSHAWInstructor in English
A.B., Colorado, 1915; A.B., Stanford, 1916.
- MAURICE HICKLINInstructor in Journalism
A.B., Missouri, 1909; B.J., 1913.
- OMEGA HILTONInstructor in Pharmacy
Ph.C., Washington, 1915; B.S., 1917; M.S., 1921.
- HARLAN CAMERON HINESAssistant Professor of Education
A.B., Wabash, 1913; A.M., Iowa, 1917; Ph.D., 1920.
- GEORGE LISLE HOARDInstructor in Electrical Engineering
B.S., (E.E.), Washington, 1917.
- JOHN WILLIAM HOTSONAssistant Professor of Botany
A.B., McMaster, 1901; A.M., 1902; Ph.D., Harvard, 1913.
- ELLEN FORD HOWEAssistant Reference Librarian and Instructor in Library Economy
A.B., Washington, 1911; Carnegie Library School.
- GLENN ARTHUR HUGHESInstructor in Dramatic Art
A.B., Stanford, 1916; A.M., Washington, 1920.
- LILIAN IRWINLecturer on Physical Education for Women
M.D., Cooper Medical College, 1898.
- GEORGE HENRY JENSEN, Assistant Professor of Vocational Education and Supervisor of
Teacher Training in the Trades and Industries
B.S., Valparaiso, 1906.
- ARTHUR RUDOLPH JERBERTAssociate in Mathematics (spring quarter)
B.S., Washington, 1916.

UNIVERSITY FACULTY.

19

CHARLES WILLIS JOHNSON, Professor of Pharmaceutical Chemistry and Dean of the College of Pharmacy	Ph.C., Michigan, 1896; B.S., 1900; Ph.D., 1903.
PAMELIA PEARL JONES	Associate in English A.B., Iowa, 1906; A.M., 1908.
ROBERT WILLIAM JONES	Assistant Professor of Journalism A.B., Missouri, 1906; LL.B., 1913; A.M., South Dakota, 1918.
ALBERT KALIN	Instructor in Electrical Engineering B.S., Washington, 1919.
SANDY MORROW KANE	Instructor in Metalwork
FRED WASHINGTON KENNEDY, Assistant Professor and Director of the Journalism Laboratories	
SYLVIA FINLAY KERRIGAN	Associate in English A.B., Washington, 1919.
THOMAS LATIMER KIBLER, Professor of Transportation and Assistant Dean of the College of Business Administration	A.B., Randolph Macon, 1904; A.M., George Washington, 1909; Ph.D., 1913.
TREVOR KINCAID	Professor of Zoology B.S., Washington, 1899; A.M., 1901.
GEORGE KIRCHNER	Instructor in Music Leipzig.
BURT PERSONS KIRKLAND	Professor of Forestry A.B., Cornell, 1905.
FRIEDRICH KURT KIESTEN	Associate Professor of Electrical Engineering B.S., Washington, 1909; E.E., 1914.
MARTHA KOHNKE	Assistant Professor of Home Economics A.B., Ohio State University, 1908; A.M., 1910.
HENRY LANDES	Professor of Geology and Mineralogy and Dean of the College of Science A.B., Indiana, 1892; A.B., Harvard, 1892; A.M., 1893.
HARVEY LANTZ	Professor of Law Ph.B., De Pauw, 1888; A.M., 1891; LL.B., Kent Law School, 1893.
JAKOB AALL OTTESEN LARSEN	Assistant Professor of History A.B., Luther College, 1908; A.M., Iowa, 1910; A.B., Oxford, 1914; A.M., 1920.
FRANK JOSEPH LAURIE	Instructor in Political Science A.B., Wisconsin, 1899; A.M., Washington, 1913.
EDWARD OSCAR LEADER	Associate in Physical Education LL.B., Washington, 1916.
KARL ELIAS LEIB	Instructor in Business Administration A.B., Stanford, 1916.
HOWARD THOMPSON LEWIS	Professor of Business Administration A.B., Lawrence College, 1910; A.M., Wisconsin, 1911.
ARTHUR WILSON LINTON	Associate Professor of Pharmacy Ph.G., Highland Park, 1902; B.S., Michigan, 1909; M.S., Washington, 1915.
EDGAR ALLEN LOEW	Associate Professor of Electrical Engineering B.S., (E.E.), Wisconsin, 1906.
HENRY STEPHEN LUCAS	Assistant Professor of History A.B., Olivet, 1918; A.M., Indiana, 1915; Ph.D., Michigan, 1921.
RUTH MARGARET LUSBY	Instructor in Institutional Management B.S., Washington, 1918; A.M., Columbia, 1920.
ELDIN VERNIE LYNN	Assistant Professor of Pharmacology and Chemistry A.B., Washington, 1909; A.M., Wisconsin, 1910; Ph.D., 1918.
OLIVE CLINTON MCCABE	Associate in Sociology A.B., Wellesley, 1909.
ROBERT FULTON MCCLELLAND	Instructor in Architecture Massachusetts Institute of Technology.
JAMES MCCONAHEY	Lecturer on Business Administration B.S., Washington and Jefferson, 1896; M.S., 1899; LL.B., Northwestern, 1899.
VIVIAN MCGILL	Associate in Philosophy A.B., Washington, 1921.
HORACE DONALD MCGIRR	Associate in Business Administration B.B.A., Washington, 1921.
HARRY JOHN MCINTYRE	Instructor in Mechanical Engineering B.S., (M.E.), Washington, 1915.

- RODERICK DUNCAN MCKENZIEAssociate Professor of Sociology
A.B., Manitoba, 1912; Ph.D., Chicago, 1920.
- EDWARD MCMAHONAssociate Professor of American History
Ph.E., Washington, 1898; A.M., Wisconsin, 1907.
- THERESA SCHMID MCMAHONAssistant Professor of Economics
A.B., Washington, 1899; A.M., 1901; Ph.D., Wisconsin, 1909.
- FREDERICK ANSTEN McMILLINActing Instructor in Chemistry
A.B., Willamette, 1916; M.S., 1917.
- BRYAN TOWNE McMINNInstructor in Mechanical Engineering
B.S., Oregon Agricultural College, 1918.
- CARL EDWARD MAGNUSSON, Professor of Electrical Engineering and Dean of the College of
Engineering
B.B.E., Minnesota, 1896; M.S., 1897; E.E., 1905; Ph.D., Wisconsin, 1900.
- SIDNEY DERBY MAIZEMajor, U.S.A., Assistant Professor of Military Science and Tactics
- ROBERT LEE MATHEWSAssociate in Physical Education
Notre Dame.
- CHARLES CULBERTSON MAYAssistant Professor of Civil Engineering
B.S., (C.E.), Washington, 1910.
- EDMOND STEPHEN MEANYProfessor of History
B.S., Washington, 1885; M.S., 1899; M.L., Wisconsin, 1901.
- GINO VINCENT MEDICI DE SOLENNIInstructor in Romanic Languages
A.B., Ohio State University, 1914; A.M., 1915.
- JEANNE ANNIE MEROIERAssociate in French
B.S., Whitman, 1920.
- STEPHEN IVAN MILLER, Professor of Economics and Dean of the College of Business Admin-
istration
LL.B., Michigan, 1896; A.B., Stanford, 1898.
- LOREN DOUGLAS MILLIMANAssociate Professor of English
A.B., Michigan, 1890.
- CHARLES CHURCH MOREProfessor of Civil Engineering
C.E., Lafayette, 1898; M.C.E., Cornell, 1899; M.S., Lafayette, 1901.
- WILLIAM DANIEL MORIARTYAssociate Professor of Business Administration
A.B., Michigan, 1904; A.M., 1905; Ph.D., 1909.
- ROBERT EDOUARD MORITZProfessor of Mathematics
B.S., Hastings, 1892; Ph.M., Chicago, 1896; Ph.D., Nebraska, 1901;
Ph.N.D., Universitaet Strassburg, 1902.
- HENRY CLINTON KRESS MULLENBERG, Major A.S., U.S.A., Assistant Professor of Military
Science and Tactics
Graduate, U.S. Military Academy, 1908.
- HERMANOS MULLEMEISTERAssociate in Mathematics
Phil.Cand., Royal University of Utrecht, Holland, 1910; Ph.D., 1913.
- LEWIS IRVING NEISKIRKAssistant Professor of Mathematics
B.S., Colorado, 1898; M.S., 1901; Ph.D., Pennsylvania, 1903.
- DELBERT NICKSONAssistant Professor of Pathology
B.S., Wisconsin, 1913; M.D., Oregon, 1917.
- JOHN EDWARD NOLAN, First Lieutenant, Inf., D.O.L., Instructor in Military Science and
Tactics
A.B., St. Joseph's College, 1909.
- SAMUEL WHEELAN NOTES, Lieutenant Colonel, Inf., D.O.L., Assistant Professor of Military
Science and Tactics
- CAROLINE HAVEN OBERProfessor of Spanish
- JOSEPH GRATTAN O'BRYANLecturer on Law
A.B., Jesuit College (Denver), 1893.
- FREDERICK ARTHUR OSBORNProfessor of Physics and Director of Physics Laboratories
Ph.B., Michigan, 1896; Ph.D., 1907.
- CORNELIUS OSSEWARDActing Associate Professor of Pharmacy
Ph.G., Columbia, 1892; Ph.C., Northwestern, 1896.
- FREDERICK MORGAN PADLFORDProfessor of English, and Dean of the Graduate School
A.B., Colby, 1896; A.M., 1899; Ph.D., Yale, 1899.
- KATHERINE VAN WINKLE PALMER, Acting Assistant Professor of Historical Geology and
Paleontology (winter and spring quarters)
B.S., Washington, 1918; Cornell.

UNIVERSITY FACULTY

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VERNON LOUIS PARRINGTON.....	Professor of English A.B., Harvard, 1893; A.M., Emporia, 1895.
AMERSON PATTERSON	Associate in Fine Arts Melbourne National Gallery, Victoria, Australia; Julien, Colorossi and Delocluse Academies, Europe.
VIRGINIA CUNNINGHAM PATTY	Assistant Professor of Home Economics Industrial Institute and College, Columbus, Mo. Shugualak College, Miss.; Teachers College, Columbia.
OTTO PATZER.....	Associate Professor of French B.L., Wisconsin, 1898; M.L., 1899; Ph.D., 1907.
JOHN KENNETH PEARCE	Acting Instructor in Forestry (spring quarter) B.S.F., Washington, 1921.
CHARLES LEONARD PHILLIPS	Colonel, U.S.A., Professor of Military Science and Tactics A.B., Colby, 1878; graduate, U.S. Military Academy, West Point, 1881; C.E., Maine, 1888; graduate, Coast Artillery School, 1890.
WILLIAM PLATT.....	Major, C.A.C., U.S.A., Assistant Professor of Military Science and Tactics Graduate, U.S. Military Academy, 1901.
FREDERICK POWELL.....	Lecturer on Gold Dredging E.M., Columbia.
SARGENT POWELL	Associate in Chemistry B.S., M.S., Washington, 1916; Ph.D., Illinois, 1919.
HAROLD PRIEST.....	Captain, U.S.A., Assistant Professor of Military Science and Tactics Washington.
HOWARD HALL PRESTON	Associate Professor of Business Administration B.S., Coe, 1911; A.M., Iowa, 1914; Ph.D., 1920.
ETHEL SANDERSON RADFORD	Associate in Chemistry A.B., McGill, 1895.
EFFIE ISABEL RAITT	Professor of Home Economics B.S., Columbia, 1912; A.M., 1919.
JOHN CHARLES RATHBUN	Assistant Professor of Civil Engineering A.B., Washington, 1903; A.M., 1904; B.S., 1908; C.E., 1909.
OLIVER HUNTINGTON RICHARDSON.....	Professor of European History A.B., Yale, 1889; A.M., Ph.D., Heidelberg (Germany), 1897.
GEORGE BUXTON RIGG	Associate Professor of Botany B.S., Iowa, 1896; B.D., 1899; A.M., Washington, 1909; Ph.D., Chicago, 1914.
ALEXANDER CRIPPEN ROBERTS	Associate in Education A.B., Wisconsin, 1906; A.M., Washington, 1917.
MILNOR ROBERTS, Professor of Mining Engineering and Metallurgy and Dean of the College of Mines	A.B., Stanford, 1899.
JAMES POSTLEWAIT ROBERTSON.....	Lecturer in Accounting (fall and winter quarters) C.P.A.
MORITZ ROSEN.....	Assistant Professor of Music Graduate, Warsaw Conservatory, Russia
HARRY RUBEY	Associate Professor of Civil Engineering B.S., (C.E.), Illinois, 1905
WILLIAM RUSSELL	Acting Instructor in Business Administration Certificate of Civil Engineering, Petrograd Institute of Roads of Communication; Certificate, Polytechnicum of Munich, 1901.
EDWIN JAMES SAUNDERS	Assistant Professor of Geology B.A., Toronto, 1896; A.M., Harvard, 1907.
WILLIAM SAVERY	Professor of Philosophy A.B., Brown, 1896; A.M., Harvard, 1897; Ph.D., 1899.
WALDO SEMON	Associate in Chemistry B.S., Washington, 1920.
HAROLD OGDEN SEXSMITH	Instructor in Architecture Armour Institute of Technology; Chicago Art Institute.
GORDON RUSSELL SHUCK	Instructor in Electrical Engineering; E.E., Minnesota, 1906.
ELLA MARIE SICKELS	Associate in English A.B., Whitman, 1917; A.M., Washington, 1921.
THOMAS KAY SIDNEY	Associate Professor of Latin and Greek B.A., Toronto, 1891; Ph.D., Chicago, 1900.
ELLA JANE SIBGINSON	Instructor in Fine Arts B.S., Columbia, 1919; A.M., 1920.

- MACY MILMORE SKINNERAssistant Professor of Business Administration
A.B., Harvard, 1894; A.M., 1895; Ph.D., 1897.
- LLOYD LEROY SMAILInstructor in Mathematics
A.B., Washington, 1911; A.M., 1912; Ph.D., Columbia, 1913.
- CHARLES WESLEY SMITH .. Reference Librarian and Associate Professor of Library Economy
A.B., Illinois, 1903; B.L.S., 1905.
- ELI VICTOR SMITHAssistant Professor of Zoology
Ph.B., Illinois Wesleyan, 1907; A.M., Washington, 1909; Ph.D., Northwestern, 1911.
- J. ALLEN SMITHProfessor of Political Science
A.B., Missouri, 1886; LL.B., 1887; Ph.D., Michigan, 1894.
- GEORGE MCPHAIL SMITHProfessor of Inorganic Chemistry
B.S., Vanderbilt, 1900; Ph.D., Freiburg, 1903.
- GEORGE SHERMAN SMITHActing Instructor in Electrical Engineering
B.S., (E.E.), Washington, 1916.
- HARRY EDWIN SMITHAssociate Professor of Business Administration
A.B., De Pauw, 1906; Ph.D., Cornell, 1912.
- STEVENSON SMITHProfessor of Psychology
A.B., Pennsylvania, 1904; Ph.D., 1909.
- ELIZABETH SOULEAssociate in Nursing and Public Health
Graduate, Malden, Massachusetts, Hospital School of Nursing, 1907.
- MATTHEW LYLE SPENCER....Professor of Journalism and Director of the School of Journalism
A.B., Kentucky Wesleyan, 1903; A.M., 1904; A.M., Northwestern, 1905;
Ph.D., Chicago, 1910.
- ROBINSON SPENCERCatalogue Librarian and Instructor in Library Economy
A.B., Wesleyan University, 1903; B.L.S., Illinois, 1913.
- LESLIE SPIERAssistant Professor of Anthropology
B.S., College of City of New York, 1915; Ph.D., Columbia, 1920.
- HENRY WALTER STAGERInstructor in Mathematics
A.B., Stanford, 1902; A.M., 1906; Ph.D., California, 1909.
- EDWIN AUGUSTUS STANTDirector of the Extension Service
A.B., Tufts, 1884; A.M., Harvard, 1893.
- EDWIN LEONARD STRANBERGAssociate in Civil Engineering
B.S., (C.E.), Washington, 1912.
- MILDRED STRUBLEAssociate in English
A.B., Washington, 1916; A.M., 1920.
- HERBERT ARTHUR STURGISInstructor in Sociology
A.B., Oberlin, 1904; A.M., 1905.
- VON VALJEAN TARBILLInstructor in Business Administration
B.S., Ohio Wesleyan, 1912; M.B.A., Harvard, 1919.
- HERMAN VANCE TARTAR.....Associate Professor of Chemistry
B.S., Oregon Agricultural College, 1902; Ph.D., Chicago, 1920.
- JOSEPH MARION TAYLORActing Instructor in Mathematics
M.S., Adrian, 1886.
- PAUL WASHINGTON TERRYAssistant Professor of Education
B.S., Vanderbilt, 1909; M.A., Columbia, 1915; Ph.D., Chicago, 1920.
- JOHN HOWARD THOMPSONInstructor in Civil Engineering
B.S., (Met.), Washington, 1919.
- THOMAS GORDON THOMPSONAssistant Professor of Chemistry
A.B., Clark, 1914; M.S., Washington, 1915; Ph.D., 1918.
- DAVID THOMSONProfessor of Latin and Dean of the College of Liberal Arts
B.A., Toronto, 1892.
- ADA TILLEYInstructor in Singing
B.Mus., Simpson, 1917.
- JACK RODERICK TOLMIEInstructor in Electrical Engineering
B.S., (E.E.), Washington.
- ARCHIE MERLE TRUESDELLActing Instructor in Civil Engineering
B.S., (C.E.), Washington, 1916.
- GEORGE WALLACE UMPHREY.....Associate Professor of Romanic Languages
B.A., Toronto, 1899; A.M., Harvard, 1901; Ph.D., 1905.

- CLINTON LOUIS UTTERBACKInstructor in Physics
B.S., Purdue, 1908; M.S., Washington, 1918.
- FRANK CHESTER VAN DE WALKERAssociate in Business Administration
A.B., Whitworth, 1917.
- LOUISE VAN OOLEInstructor in Music
Theoretical Work, Dr. Bridge, Chester, England; Richter, Leipzig; Piano,
Godowsky, Berlin; Lhevinne, Berlin; Harold Bauer, Paris.
- ALBERT FRANZ VENINOAssistant Professor of Music
New York Conservatory of Music; Pupil of Leschetizky.
- EDWIN JOHN VICKNERProfessor of Scandinavian Languages
A.B., Minnesota, 1901; A.M., 1902; Ph.D., 1905.
- BERTHA ALMEN VICKNERAssociate in English
A.B., Gustavus Adolphus, 1910; A.M., Washington, 1917.
- CHARLES EDWIN WEAVERProfessor of Paleontology
B.S., California, 1904; Ph.D., 1907.
- JAMES WEHNAssociate in Modeling and Sculpture
- JOHN WEINZIEHLProfessor of Bacteriology
B.S., Wisconsin, 1896; M.S., 1899; Ph.D., 1906; Dr.P.H., Harvard, 1918.
- FRED FALCONER WELDAssociate in Civil Engineering
B.S., Pennsylvania State College, 1893; C.E., 1902.
- CHAUNCEY WERNECKEAssociate in Civil Engineering
B.S., (C.E.), Washington, 1910.
- EARL DOWNS WESTAssociate in Mathematics
A.B., Ohio State College, 1900; A.M., Adrian College, 1908.
- CLARENCE LESTER WHITEInstructor in Civil Engineering
B.S., (C.E.), Iowa, 1900; C.E., 1914.
- WALTER BELL WHITTLESSEYInstructor in French
A.B., Washington, 1907; A.M., 1909.
- GEORGE WHITWELLAssociate in Chemical Engineering
B.S., Massachusetts Institute of Technology, 1915.
- MARJORIE HELEN WHIFFLEAssociate in Chemistry
A.B., Colorado College, 1917.
- ELGIN ROSCOE WILCOXInstructor in Civil Engineering
B.S., Washington, 1915; Met.E., 1919.
- CURTIS TALMAGE WILLIAMSAssistant Professor of Education
A.B., Kansas State Normal, 1913; A.M., Clark, 1914; Ph.D., 1917.
- GEORGE SAMUEL WILSONAssociate Professor of Mechanical Engineering
B.S., Nebraska, 1906.
- HEWITT WILSONAssistant Professor of Ceramics
Cer.Engr., Ohio State University, 1913.
- WILLIAM RONALD WILSONInstructor in Psychology
A.B., Washington, 1917; M.S., 1921.
- ROY MARTIN WINGERAssociate Professor of Mathematics
A.B., Baker, 1906; Ph.D., Johns Hopkins, 1912.
- HUGO WINKENWERDERProfessor of Forestry and Dean of the College of Forestry
B.S., Wisconsin, 1902; M.F., Yale, 1907.
- ARTHUR MELVIN WINSLOWAssociate Professor of Mechanical Engineering
Ph.B., Brown, 1903; B.S., Massachusetts Institute of Technology, 1906.
- CARL PAIGE WOODAssistant Professor of Music
A.B., Harvard, 1906; A.M., 1907.
- HOWARD WOOLSTONProfessor of Sociology
A.B., Yale, 1898; S.T.B., Chicago, 1901; M.A. Harvard, 1902; Ph.D., Columbia, 1909.
- JOHN LOCKE WORCESTERAssociate Professor of Anatomy
M.D., Birmingham School of Medicine, Alabama, 1900.
- EUGENE HUTCHINSON WORMANAssociate in Fine Arts
Pratt Institute.
- SELAH ELIZABETH WRIGHTAssociate in English
A.B., Mount Holyoke College, 1918.
- CONRAD ZIMMERMANLecturer on Timber Physics
A.B., Washington, 1908.

BOARDS AND COMMITTEES

1922-1923

ADMINISTRATIVE BOARDS

BOARD OF DEANS—J. T. Condon, Thomson, Magnusson, Roberts, Johnson, Winkenwerder, Padelford, Landes, Bolton, Glen, Miller, Coldwell, Start, Spencer, Cobb, Henry, Gould, Stone.

SUMMER QUARTERBoard of Deans and the Comptroller

EXTENSIONStart, Thomson, Landes, Bolton, Miller, Raitt, H. T. Condon

STUDENT WELFARE AND DISCIPLINE....Deans Condon, Thomson, Miller, Magnusson, Landes

SCHEDULE AND REGISTRATION—Stevens, Stone, Wilson, Daniels, Rigg, Tartar, Hines, Sexsmith, Leib, Dresslar, Laube, Wood, Gregory, Garrett, W. B. Jones.

CONSULTING ENGINEERS.....Eastwood, Magnusson, Harris

COMMITTEES OF THE FACULTY

The President is *ex-officio* a member of each standing committee.

ADMISSIONS..... The Board of Deans

ART.....Carl Gould, James Gould, Hughes, Patterson, Wehn

ASSEMBLY.....Spencer, Daniels, Glen, Hughes

ATHLETICS.....L. J. Ayer, Hall, Moritz, Dehn, May

CURRICULUM—Cobb, Johnson, Bolton, Loew, Winkenwerder, Spencer, Sexsmith, Henry, Benson, L. J. Ayer, Daniels, Patzer, Stone.

ENTRANCE EXAMINATIONS.....Garrett, Terry, Winger, Stone

GRADUATION.....Thomson, Landes, Magnusson, Lantz, Curtis, Kirkland, Williams, Stone

HONORS.....Padelford, Goodner, Carpenter, Loew, T. S. McMahon, Rathbun, Wood, Terry

JUNIOR COLLEGES.....Padelford, Thomson, Frye, Bolton, E. McMahon, Stone

LIBRARY..Henry, Thomson, Padelford, Frye, Richardson, Patzer, Loew, Preston, C. W. Smith

PRE-MEDICAL COURSE.....Worcester, Johnson, Weinzirl, Kincaid, Hall

PUBLICATIONS—Henry, Landes, Padelford, Start, Umphrey, Densmore, Bell, Kennedy, Bender.

RELATIONS WITH SECONDARY SCHOOLS.....Bolton, Thomson, Padelford, Frye, Frein, Stone

RULES.....Benham, Goodner, Bell, More, Stone

SPECIAL STUDENTS.....The Registrar, the Dean of Men and the Dean of Women

STUDENT AFFAIRS—Thomson, Winkenwerder, Padelford, Gould, Ward, Daniels, McMahon, Loew, Haggett and eight representatives of student organizations.

STUDENT HEALTH.....Hall, James Gould, Coldwell, Weinzirl, Worcester

RHODES SCHOLARSHIPS.....Densmore, L. J. Ayer, Harrison, Larsen

WASHINGTON UNION.....Meany, J. T. Condon, Landes, Thomson, Miller, H. T. Condon

MILITARY AND NAVAL AFFAIRS.....Osborn, Eastwood, More, S. H. Anderson, Harrison

THE UNIVERSITY

HISTORICAL

The foundation for the establishment of the University of Washington was laid in 1854, when Governor Isaac Ingalls Stevens, in his message to the first Legislature, recommended that Congress be memorialized to appropriate land for a university. Two townships were subsequently granted and in January, 1861, the Legislature finally located the Territorial University at Seattle.

On February 22 (Washington's Birthday) the Reverend Daniel Bagley, John Webster and Edmund Carr, composing the Board of University Commissioners, met and organized for work. Ten acres of land were donated by Hon. Arthur A. Denny, Charles C. Terry and Edward Lander from their adjoining farms, and on May 21, 1861, the cornerstone of the main building was laid and the building completed in specified time.

On November 4 following the University was opened for students. For thirty-four years the University was located on the original tract. Throughout the later eighties it became apparent that the campus would eventually be outgrown. By 1890 both the growth of the University and Seattle's business district evinced the necessity of re-moving the University farther from the city where more ample grounds could be obtained.

The Legislature passed a bill on March 17, 1893, providing for the relocation, construction and maintenance of the University of Washington.

An entire fractional section consisting of 355 acres, located between lakes Washington and Union, the present site of the University, was purchased. Upon the completion of Denny hall and some minor buildings the University moved September, 1895 to its present location.

GOVERNMENT

Under the constitution and laws of the State of Washington, the government of the University is vested in a Board of Regents, consisting of seven members appointed by the Governor by and with the advice and consent of the Senate. Each regent is appointed for a term of six years.

ENDOWMENT AND SUPPORT

The University derives its support entirely from the state. As yet the property belonging to the institution as an endowment yields comparatively little revenue. The income from this property will some day greatly help to support the University.

The legislature of 1921 appropriated for maintenance and operation and equipment, other than buildings, \$2,506,044. This was based on a millage of .74 of a mill for the first year, and 1.10 of a mill for the second year, plus sundry receipts from certain property income.

To supplement this appropriation it became necessary to increase the tuition and sundry fees, during the biennium.

The legislature also formally appropriated the tuition and endowment receipts for the biennium for the permanent building fund and duplicated the amount of tuition collected from students for this purpose during the previous biennium. These items provided a building fund of \$695,131.

The property of the University includes:

- (1) The two townships of land granted by Congress in 1854. There remains of this old grant some 3,000 acres.
- (2) The old University site, consisting of the tract of 8.32 acres, donated in 1861 by Arthur Denny and wife; and 1.67 acres donated by

Charles C. Terry and wife and Edward Lander. This "ten-acre tract" is situated in the very heart of Seattle, and is rapidly enhancing in value.

(3) In addition to the above, the University was further endowed by the state on March 14, 1893, by the segregation of 100,000 acres of lands.

(4) The University campus consisting of 582 acres of land and waterways, upon which stand the buildings composing the present equipment of the University.

BEQUESTS

The Board of Regents of the University of Washington is authorized by law to receive such bequests or gratuities as may be given or granted to the University, and to invest or expend the same according to the terms of such bequests or gratuities. The Board of Regents has adopted rules to govern and protect the principal of such gifts and the income therefrom so that the same will be forever applied to the purposes designated by the donors of the gifts.

Those who desire to aid the work of the University of Washington by means of gifts *inter vivos* or by wills may do so, feeling assured that their wishes as outlined in the deed of gift or will are to be carried into effect as provided by law.

A simple statement in a will as follows:

"I give, devise and bequeath to the Board of Regents of the University of Washington the sum of _____dollars *In Trust*, *However*, for the following uses and purposes to be invested in securities to be approved by said Board and the interest therefrom to be expended in the maintenance of" (scholarship or fellowship subject named), will be sufficient.

These bequests may be applied to the maintenance of scholarships and fellowships in any subject desired by the donor which meets the approval of the Board of Regents.

EQUIPMENT

GROUNDS

The Campus, comprising 582 acres, 109 of which are open water, is ample to meet every need of the University. The land is all within the city limits of Seattle, lying between Lakes Union and Washington, with a shore line of more than one mile on Lake Washington and about a quarter of a mile on Lake Union.

BUILDINGS

The following buildings are now in use on the University campus: Aerodynamical Laboratory, Anatomical Laboratory, Bagley Hall and Annex, Commerce Hall, Denny Hall, Dormitories, (Lewis, Clark, Lander and Terry), Education Hall, Engineering Hall and Annex, Extension Building, Fisheries Buildings, Forest Products Laboratory (Dry Kiln, Wood Preserving Plant, Dry Shed), Foundry and Shop Building, Gatzert Building, Good Roads Building, Gymnasium, Health Service Building, Home Economics Hall, Hydraulics Laboratory, Library, Meany Hall, Mines Hall, Mines Laboratory, Museum, Observatory, Philosophy Hall, Power House, Practice Cottage, R. O. T. C. Armory and Headquarters Buildings, Science Hall, U. S. Bureau of Mines, U. S. Mine Safety Station.

THE NEW CAMPUS PLAN

The new plan for the grouping of the Buildings for the University of Washington was prepared by direction of the Board of Regents, and with the supervision of the Faculty Committee. It was officially adopted May, 1915. The scheme is developed upon three major quadrangles, the Science Group about the axis of Mount Rainier Vista, the Administration or Library Group with Meany Hall enclosing the west side, and the Liberal Arts Group about the axis at right angles with the walk running in front of Denny Hall.

Since the adoption of the Group Plan seven buildings have been completed: Home Economics, Philosophy, Commerce and Education Halls. Four were upon the Liberal Arts Quadrangle. Locations for two additional buildings are provided and when they are constructed this quadrangle will be completed. The other three buildings completed are adjacent to the Science Group, they are Hydraulics, Forest Products and Mines Laboratories.

A portion of the Library, plans for which have been authorized, and a Women's Building will probably be the next to be constructed as funds become available.

The plan provides for foot traffic only within the quadrangles.

Automobile and service roads are provided in order to obtain access to the various groups and scenic driveways encircle the campus. The ground to the west of Montlake Boulevard is reserved for athletics of all kinds, the Stadium being the first structure located with this in view. The Gymnasium is to be placed halfway between the Academic Group and the Athletic Fields and a connection will be made by a bridge over Montlake Boulevard.

Denny Field has already been moved to conform to the Group Plan upon which the Women's Gymnasium is shown, ultimately creating a Women's Group in the northeast section of the campus, including a women's dormitory.

The northwest section of the campus is reserved for men's dormitories. Between the two groups Memorial Way is shown entering from the north as the continuation of the University Boulevard.

LIBRARY FACILITIES

The general library contains 112,870 volumes, and receives 700 current magazines. About 6,000 volumes a year being added.

The Law School library contains more than 25,000 volumes. All books of both libraries are upon open shelves and are easily accessible to all who care to use them.

In addition to the library facilities upon the campus, the Seattle Public Library, containing approximately 350,000 volumes, is open free to the University.

THE MUSEUM

The museum of the University of Washington is a museum of the arts and natural sciences. It was created the State Museum of the State of Washington by act of the Legislature in 1899. In its functions as a state, a university and a public museum, it aims to make its collections representative of the natural history, mineral resources, ethnology, history, and chief industrial activities of this region and of those countries with which this state has a commercial relationship; to furnish materials for research and study, and to interest and educate the public by its exhibitions. Its collections, illustrative of the northwest coast, are already among the most complete and valuable to be found in the United States. The museum is housed at present in the Forestry building, which was erected in 1909 for the Alaska-Yukon-Pacific Exposition. It is archaic Greek in style, following the lines of the Grecian temples, its frame consisting of large columns of native fir trees, varying from five to six feet in diameter and from forty-two to fifty-four feet in height.

The museum collections number over 100,000 specimens with an approximate value of \$200,000. Extensive exhibits are arranged showing the mineral, lumbering, and horticultural resources of the state and of Alaska. An exhibit of local birds is arranged in systematic order and is illustrated by groups showing their natural habitat. Elaborate habitat groups of large animals, such as elk, bear, deer, mountain goats, cougar, etc., mounted according to the latest methods of scientific taxidermy, have been installed or are in process of installation. The marine fauna is represented by a series of mounted fishes of the northwest coast, corals, sponges, crustaceans, mounted shells, etc. Rare specimens illustrative of the extinct mammoth and mastodon from Alaska and the state of Washington, are also on exhibition.

Ethnology—Collections illustrative of the life, arts, and industries of the Indian tribes of the northwest coast from the Columbia river northward through Arctic Alaska are arranged in tribal sequence. The Emons Tlingit collection from Southeastern Alaska is one of the most complete from that section to be found in any museum, and the Eskimo collection from Arctic Alaska is equally rare and valuable. In addition there is a small and interesting series from the so-called Blonde Eskimos on Coronation Gulf. A collection of pottery and basketry illustrate the art of the Indian tribes of Southwestern United States.

An unusual and rare collection illustrative of the archeology of the Columbia river region of eastern Washington was recently added, through the work of a museum expedition under the supervision of Director F. S. Hall. This material together with the Stewart collection already in the museum, forms a most interesting series on the archeology of the Columbia river down to the Dalles.

The Philippine collections contain interesting specimens of Moro handicraft such as brasses, hats, textiles, and implements of warfare; examples of the characteristic beadwork of the Bogobos on the island of Mindanao; and of articles of dress and implements of warfare of the Igorrots and other primitive tribes on the island of Luzon.

Other collections of interest are: collection of porcelains, embroideries, carvings, scrolls, clothing, Buddhas, etc., from northern China; specimens from various islands of Oceanica and Australia; Norwegian spinning wheels, chests, household articles, and other materials of the early eighteenth century; a collection of guns, pistols, and other firearms given by the Butterworth estate; relics of the Great War given or loaned by persons who collected them while in the service of their country; a colonial collection of early furniture, pewter, glassware, potteries, documents, photographs, etc.; historical materials representative of pioneer days in the Pacific Northwest and elsewhere.

Fine Arts.—The fine arts section contains the interesting collection of paintings, tapestries, carvings, etc., loaned by Kennedy C. Friend, and a collection of rare antique laces, Paisley and India shawls, porcelains, engravings, textiles, sculpture, etc., which have either been given or are loaned indefinitely to the museum. Special exhibits are arranged in the exhibition rooms on the first floor from time to time, notices of which are published at the time of the exhibition.

Reserve or Study Series.—The museum has in its laboratories for purposes of study and research, collections of botanical, conchological, ornithological, and ethnological specimens which are available to students or specialists competent to use them; also the museum library, consisting of several hundred books and pamphlets on scientific subjects.

The herbarium of over 15,000 specimens contains a characteristic series of northwest flora practically all of which is card indexed; also the Frye collection of mosses which is one of the most complete of this region and Alaska in the United States.

The collection of bird skins, eggs, and nests consists of over 4,500 specimens and are particularly representative of western Washington.

The conchological collection of over 18,000 specimens contains a complete series of west coast forms together with a larger series from all parts of the world.

LABORATORIES

The University of Washington has the following laboratories equipped for work in the various science departments:

ANATOMY LABORATORIES

A separate building constructed to secure a maximum of light and cleanliness houses the laboratory for human anatomy. It is located east of Bagley hall. Necessary equipment in the way of skeletal chart and model material are conveniently arranged. A study room and departmental library form an integral part of the laboratory.

ASTRONOMY LABORATORIES

The observatory is located in a substantial sandstone structure containing dome for equatorial, room for transit and clocks, office, room for lectures and laboratory work and dark room. Part of the roof is flat, making an admirable place for evening study of the heavens. The instruments include a six-inch refracting telescope and accessories; a Bamberg transit, Riefle clock, Bond chronometer, Gaertner chronograph, Astro-Petzal objective with accessories, a barometer, sextants, etc. The clock is enclosed in a constant temperature chamber. The minor equipment consists of a good assortment of transparencies and lantern slides, globes, planetarium, and other equipment for experiments in laboratory and lecture work in astronomy.

BOTANY LABORATORIES

The botanical laboratories are on the third floor of Science hall. They occupy about 5,000 feet of floor space divided as follows: Two large labor-

atories of about 1,500 square feet each; three small laboratories, one for physiology, one for mycology and one for research. The laboratories are fitted with the apparatus and conveniences usual for the work.

CERAMIC LABORATORIES

(See Mining, Metallurgical and Ceramic Laboratories, page 34.)

CHEMICAL LABORATORIES

A thoroughly modern fireproof building houses the chemical laboratories. Fully equipped separate laboratories are devoted to general chemistry, analytical chemistry, food inspection and analysis, organic chemistry, physiological chemistry, industrial chemistry, and pharmaceutical chemistry. All laboratories are equipped with hoods with forced drafts, water, gas, distilled water and air pressure. The chemical engineering laboratories are equipped with the fundamental types of apparatus used in manufacturing processes, such as filter press, hydraulic press, stills, grinding apparatus, heating furnaces and vacuo drying oven.

CIVIL ENGINEERING LABORATORIES

The hydraulic laboratory is now located in its new building on the shore of Lake Union, where facilities are available for both medium and high head experiments. For medium head, a free water surface, one acre in extent, is provided at an elevation of 100 feet above the laboratory floor. For high heads, connection is made with an 8' pipe leading from an elevated tank 300 feet above the floor.

The materials testing laboratory contains five universal testing machines with capacities from 30,000 to 300,000 pounds, two impact machines with various hammers ranging in weight from 550 to 1500 pounds, with the necessary auxiliary apparatus for general work.

The equipment for testing hydraulic cement is complete for all the ordinary tests as specified by the American Society of Civil Engineers.

The road laboratory is equipped for testing materials used in the construction of roads. The machines for the abrasion and toughness test are of the standard designs adopted by the American Society of Testing Materials; other machines are similar to those used by the United States Office of Public Roads.

The surveying equipment consists of an ample supply of all the necessary instruments for plane and topographic surveying.

ELECTRICAL ENGINEERING LABORATORIES

The dynamo laboratory contains seventeen alternating and thirty-four direct current generators and motors. The machines are of modern design and have a combined capacity of 300 kilowatts in direct current machines and 225 kilowatts in alternating current machines. Most of the machines are of five- or ten-kilowatt capacity. Power from a storage battery of 130 cells is available at a separate switchboard in the dynamo laboratory. The university power house, containing two steam-driven units of 200 and 100 kilowatts, serves as a commercial laboratory for operating and testing purposes.

Nine smaller rooms are devoted to the following: (a) Instrument making and repairing, (b) grinding room and shop, (c) instrument and stock room, (d) telephone laboratory, (e) electrolysis and special thesis problems, (f) storage battery rooms, (g) three dark rooms for photometry work, (h) radio laboratory, (i) transmission line laboratory. The instrument room contains a large collection of standard indicating and recording ammeters, voltmeters and wattmeters, two three-element G.E. oscillographs, and a Tinsley A.C. potentiometer.

FISHERIES LABORATORIES

Ichthyology Laboratory.—The ichthyology laboratory contains an extensive collection of named fishes, particularly rich in species from Puget Sound and Alaska. By exchange and other means a representative series of the fishes found in American waters, with particular reference to forms of economic importance is being built up. There has also been gathered a collection to illustrate the species of shellfish, crustaceans, and other invertebrate animals constituting the bases for the corresponding industries.

Fish Diseases Laboratory.—The laboratory for fish diseases is equipped for the study of life histories of the various parasites of aquatic animals, including aquaria for live subjects, dark room for studying the effects of various colored lights upon the animals, etc.

Fisheries Laboratories.—The apparatus laboratory is equipped with working models of the larger forms, and fully rigged types of the smaller forms of fishery apparatus, also detailed plans for the construction of same; equipment for the manufacture, repair, care and preservation of nets; models of fishing vessels and boats, and samples of various fishery products prepared for market.

The canning laboratory is equipped with all the machinery and appliances necessary for canning all varieties of fishery products, in either tin or glass, and in addition to practical instruction in canning methods, tests are made of various species, while research in food canning is carried on under conditions similar to those prevailing in commercial plants.

The curing laboratory contains all the necessary equipment for the pickling, dry-salting and mild-curing of fishery products.

Ultimately a small refrigeration and cold storage plant will be installed for the purpose of economic study of the various methods of freezing and preserving fishery products in cold storage.

A smokehouse will be built for the purpose of carrying on experiments in smoking of various species and their utilization as food either in this condition or canned.

The testing room will have a constant temperature of approximately 98° Fahrenheit, and in it samples of canned fishery products may be incubated, by means of which swells may be separated from the other cans and the sufficiency of the process used in the cannery determined. Various vacuum gauges and can testers will also be available.

Fish Hatchery.—The fish hatchery occupies about seven hundred square feet of floor space in Fisheries Hall No. 2. It is furnished with hatching troughs, baskets, and other essential equipment for the care of 500,000 salmon or trout eggs. A complete equipment consisting of batteries of open-top jars is provided for the care of several million of semi-buoyant eggs. Feeding tanks and aquaria are also provided in which experimental work in fish culture may be carried on. A number of cement-lined ponds are available in the College grounds for the rearing of various species of aquatic animals.

Within easy reach of the University are located state and federal fish hatcheries where a study may be made of the actual conditions under which fish culture is carried on.

FOREST AND LUMBERING LABORATORIES

Dendrology.—Individual lockers. Extensive collections of tree seeds, cones, bark specimens. An arboretum is under way.

Logging and Lumbering.—Field work at logging camps and sawmills about Seattle. Complete equipment of instruments and tools is available for work in logging engineering. Collections of lumber, showing grades and

patterns, charts of lumber grades, exhibits of sawmill and woods saws, logging equipment, such as wire ropes, axes, hooks, blocks, special appliances for donkey engines, saw-mill belts, models of high lead logging, etc.

Mensuration.—Equipment selected to show principal types of instruments in use. Those adapted for use in the Northwest are provided in quantities sufficient for all practice work in cruising, surveying, volume, growth and yield studies.

Silviculture.—Forests around Seattle offer wide opportunities for practical studies and demonstrations. The extensive forest tree nursery of the College of Forestry affords excellent opportunity for practice in modern nursery methods.

Timber Physics.—Laboratory work is carried on in the U.S. Forest Service Timber Testing Laboratory, operated in cooperation with the University. The laboratory is magnificently equipped with seven large testing machines for static and impact loading, circular and band saws, planer and other shop equipment for wood-working.

Wood Technology.—Individual lockers, gas, water, compound microscopes and all apparatus for preparing and sectioning wood for microscopic study are provided. Hand specimens and planks of domestic and foreign commercial timbers are provided in large quantities. These include extensive collections of South American, Australian, Philippine, Japanese and other foreign hardwoods. Microscopic slides of nearly all American woods are kept on hand for check specimens.

Forest Products Laboratories.—A forest products laboratory was erected last year at a cost of \$85,000. Owing to the shortage of class room accommodations on the campus, the products laboratory is used to house all of the activities of the College of Forestry until the second unit of the Forestry Group—a building of approximately 60x120 feet—is erected. The laboratories for work in forest products now ready on the campus consist of four distinct units, as follows:

1. General Laboratory.—Equipped with microtome, water baths, drying ovens, microscopes, chemical and pulp balances, all apparatus necessary for technical examination of wood preservatives, standardized thermometers, cameras and other apparatus required for photomicrography, dark room, and all incidental apparatus required for the detailed study of wood tissues.

2. Wood Preservation Laboratory.—Consists of both an open tank and a pressure plant. The former is of commercial size for treating ties, composed of two treating tanks and two storage tanks, one of steel for creosote, the other a wooden tank for salt solutions and other preservatives. The pressure plant consists of a 12-foot retort, air compressor and vacuum pumps and a duplex pressure pump, is so constructed that it may be used for any of the different pressure processes.

3. Wood Distillation Plant.—Consists of a retort of one-half cord capacity per charge, gas tank, and refining apparatus. The retort has been installed by the U. S. Forest Service for cooperative work with the University.

4. The Dry Kiln.—This is a plant of about one carload capacity, and is equipped with a recording hygrometer and thermometer, hygro-deik, and automatic temperature control.

Commercial Plants.—Plants for the manufacture of paper, wood pipe, coopeage, excelsior, wood conduit, veneers, furniture, boxes, and numerous

other secondary wood products are available for study. Four large creosoting plants and several smaller preservative plants are also available.

Demonstration Forest and Experiment Station.—Consists of a 60,000-acre tract comprising the Pilchuck-Sultan watersheds formerly a part of Snoqualmie Forest. It is very conveniently reached from Seattle, and offers almost ideal conditions for a school forest. It has a total stand of timber of over a billion and a half feet, representing nearly all species of the Pacific Northwest, but more than three-fourths is composed of Douglas fir, cedar and hemlock. As there is an excellent representation of age classes, it will lend itself readily to scientific forest management. It is estimated that the tract will yield from \$20,000 to \$25,000 annually on a sustained yield basis. It is expected that title to the tract will be completed in the near future.

GEOLOGY LABORATORIES

The geology laboratories, four in number, are in Science hall. Two are on the first floor, and consist of large rooms arranged for general geology, physiography, meteorology, mineralogy, petrography and paleontology. Two laboratories are in the basement, in well-lighted rooms at the southwest end of the building.

For work in mineralogy and petrography extensive collections of minerals and rocks are supplied; and for paleontological study collections of fossils and casts represent the principal geological formations. In the study of meteorology practical work is done by the use of a complete set of weather bureau instruments. For the study of earthquake phenomena a Bosch-Omori seismograph has been installed for some years. For general laboratory and lecture work the latest model Bausch & Lomb Balopticon with reflectoscope and polariscope attachments is provided.

JOURNALISM LABORATORIES

The journalism laboratory, occupying 30x60 feet in the basement of Commerce Hall, is equipped with chases, imposing stones, type materials, borders and everything necessary to teach students how to dress a newspaper. For students interested in advertising and commercial printing, other special equipment is provided. A laboratory library of publications from supply houses, is always available, containing the latest information on type, paper, furniture, engravings and all equipment of the publishing and allied trades.

The journalism laboratory opens into the University Press, where practically all University printing is done. This makes convenient regular assignment hours on various types of machinery, as the plant has its own slug casting and type casting machines, cylinder, platen and rotary presses, folder, cutter, sticher, etc.

MECHANICAL ENGINEERING LABORATORIES

The steam and experimental laboratory is fully equipped with steam apparatus, including engines aggregating 900 H. P., of simple and compound, high speed and Corliss types; steam turbine; jet and surface condensers; injector; centrifugal pump; steam calorimeters; indicators; calibrating appliances; oil testing machine; gas engine of stationary and automobile types; gas producer plant; refrigerating apparatus; compressed air machinery for two stage compression and Westinghouse full train equipment; fuel testing facilities, including Mahler Bomb, Junkers and other colorimeters, with accessories for determining heating value and analysis of solid, liquid and gaseous fuels.

There is a woodworking shop, machine shop, foundry and forge shop. The wood shop is equipped with benches, lathes, band saws, circular saws,

planer, and trimmer. The forge and foundry are equipped with down-draft forges, power hammer, punch and shears, cupola, moulding machines, shakers, rattler, riddles, brass furnace, core ovens, and traveling crane. Machine shop is equipped with small and large lathes, drill press, milling machine, planer, sharper, metal saw, grinding machine and complete equipment for bench and vise work.

MINING, METALLURGICAL AND CERAMIC LABORATORIES

The laboratories for mining, metallurgy, and ceramics proper are housed in two buildings; Mines Hall, occupied since 1910, contains the equipment for mining, ore dressing, and all branches of metallurgy, while the ceramics, fuels, and coal washing laboratories are in the new mines laboratory.

Mining, Ore Dressing, Metallurgy.—Mines Hall is a pressed brick building standing near the center of the campus. The main portion of the structure, measuring 50 by 80 feet, contains the offices, library, classrooms, drafting rooms and museum, as well as laboratories, desks, stockroom and balance room for assaying and general metallurgy. The rear wing, 40 by 66 feet, with basement, tower, and a 90-foot stack, is occupied by mining and milling machinery, electric furnaces, supplies, and stocks of ore. An addition contains a steel locker room, lavatory, shower-baths, and a metallographic laboratory.

The metallurgical equipment includes standard size furnaces fired by six methods,—coal, coke, gasoline, gas, fuel-oil and electricity. Other important pieces of equipment are a reverberatory furnace, pyrometers of several types, cyanide equipment, amalgamating devices, blowers, calorimeters, balances, sampling machines, and exhibits of metallurgical processes and products.

The electrometallurgy laboratory is equipped with transformers, voltage regulators and switchboard through which power can be used at rates ranging up to 3600 amperes and at voltages varying from 1 to 484. A quarter-ton steel melting furnace and six other furnaces of various types are in use. The electrolytic laboratory contains a 3-horsepower motor-generator set, switchboard, meters, vats and accessory apparatus. A good supply of electrodes and refractory materials is kept in stock.

The mining equipment consists of air compressors, receivers, three rock drills, aerial tram, hand tools, full equipment for practice in blasting, loading and tamping models, exhibits of mining and timbering methods, drawings, blue prints, photographs, lantern with 1,600 slides, and collections of ores and minerals. The College of Mines mill contains breakers, rolls, 3-stamp battery, feeders, screens, classifiers, jigs, six concentrating tables, flotation cells of six types, Dings magnetic separator, and accessory apparatus.

Ceramics and Coal Washing.—The new mines laboratory, completed in 1921, is located in the engineering group and is the latest representative of the collegiate gothic style of architecture adopted by the University. The structure is four stories in height, with steel frame, reinforced concrete walls and floors, brick face, terra cotta trim, and slate roof with copper trimmings. A special feature of the building is the unusually large window area. An electric elevator serves all floors; hot and cold water, steam, compressed air, gas, and electricity for lighting, power and electrolytic purposes, reach all the laboratories.

The ceramics equipment, together with the offices and class rooms, occupies the northern two-fifths of the building, including the main entrance hall. The apparatus may be used for both manufacturing and testing cera-

mic products. The heavy brick machinery, located in the basement, consists of a 4-foot Crossley dry and wet pan, a Mueller universal auger machine with cutting table, and a large American dry brick press. The pottery machinery includes a Patterson clay washing outfit with a double blunger, power screens, agitator, pump and filter press, a potter's pug mill, jolly wheel and plaster molds for both jollying and casting ware. The terra cotta equipment consists of pressing molds, a De Vilbiss spraying apparatus, engobe and glaze materials, and glaze-grinding ball mills. Firing apparatus installed on the basement floor includes an oxygen acetylene cone-fusion furnace; a 3-foot, high-temperature, load-test kiln for two bricks; two portable muffle pottery kilns; a 10 by 7-foot open-fired, down-draft brick kiln; and a 10 by 8-foot terra cotta and glaze kiln of muffle type. The kilns are equipped with Brown pyrometers and fired with both gas and oil. General testing apparatus consists of sample molds, a small Mueller auger machine, a sample dry press, ageing cellar, volumeters, steam dryer, constant temperature electric dryer and transverse and tensile strength machines. The ceramic museum, library and office, physical-chemical laboratory, and locker room are on the third floor. Lecture, storage and pottery class rooms occupy the fourth floor.

The coal section of the new mines laboratory occupies the southern three-fifths of the building, and consists of three floors surrounding an open well or hatch, a lower main floor, and a sub-basement. Coal for testing is received on the ground floor, in lots up to thirty tons, and is screened to remove large sizes; smaller sizes pass into a concrete bin from which they are drawn to elevators for transportation to screens on the fourth floor, the screened products falling into bins on the third floor. From the bins, gravity flow delivers the screened sizes to the second floor, on which are located classifiers, jigs, tables, and other washing equipment. Products from these machines may flow to the lower floor for settling and dewatering. Large sizes of coal will be crushed in the sub-basement and wheeled to the elevator for delivery to the upper floor. Sampling devices will be installed at suitable points.

The third floor of the building contains fuel and analytical laboratories for the College of Mines and the U.S. Bureau of Mines, a room for conducting sink-and-float tests, office rooms, and special equipment. The ground floor contains a sampling room, a coal crushing and grinding room for the preparation of samples, and a two-stage compressor for supplying air for

UNITED STATES BUREAU OF MINES NORTHWEST EXPERIMENT STATION

The United States Bureau of Mines maintains at the College of Mines, a mining and metallurgical experiment station for the Pacific Northwest and the coast regions of Alaska. The headquarters of the station, from which all operations in this territory are directed, are in the Bureau of Mines building, between Mines and Bagley halls. An analytical laboratory is in the same building, while the electric furnaces and other equipment used by the bureau in cooperation with the college are housed in the Mines building. At present the principal investigations being conducted by the station are in electrometallurgy, in the treatment and uses of coal and in ceramics. Members of the experiment station staff give occasional lectures to the students of the University on subjects dealing with their special lines of work.

Mine Safety Station.—The Mine Safety Station occupies a separate building. Several sets of various types of oxygen rescue and resuscitation apparatus are kept on hand for practice as well as for use in mine rescue work. The purpose of the station is to train miners in the use of oxygen helmets, which are used in cases of mine fires and explosions in both coal and metal mines. From ten days to two weeks' time is required for the

course of training. The applicant is taught the construction of the apparatus and is required to wear it for four hours each day, in two periods of two hours each. The practice is carried on in a room filled with gas which cannot be breathed without immediate danger, and the work to be performed is the same as that which would be required in actual mining operations or rescue work. The smokeroom represents a portion of a mine, and is equipped with mine car, track, overcast, timbers and brick. First-aid instruction is also given. Applicants who have completed the course of training receive a certificate from the United States Bureau of Mines.

A one-ton 45-horsepower automobile truck, equipped with rescue apparatus ready for emergency calls, forms part of the equipment of the rescue station.

PHARMACY AND MATERIA MEDICA LABORATORIES

Rooms devoted to pharmacy, materia medica and chemistry are in Bagley hall, a three-story fireproof building. Special sections are provided for pharmacy students in general, organic and qualitative chemistry. Work in prescription practice receives special attention in a room constructed and arranged as a model prescription pharmacy. The materia medica room contains a museum of several hundred samples of official and unofficial crude drugs. It also contains an extensive collection of commercial and biological products manufactured and donated by the H. K. Mulford Company of Philadelphia, Pennsylvania, Parke, Davis & Co., of Detroit, Michigan, and Eli Lilly and Company, of Indianapolis, Indiana. One room is given to drug assaying and food analysis. The examination of official food and drug samples for the state is under the direction of the Dean of the College of Pharmacy, in a well equipped laboratory devoted to this purpose. Pharmacy students taking botany, physiology and bacteriology have well equipped laboratories in Science hall.

PHYSICS LABORATORIES

The laboratories set apart for the use of the department consist of: (1) A general laboratory for students in arts and sciences, (2) a general laboratory for students in applied science, (3) an electrical laboratory, (4) a heat laboratory, (5) a sound and light laboratory, (6) a photometry room, (7) a battery room.

The laboratories are supplied with apparatus from the best American and European makers.

The Bureau of Testing is equipping itself as rapidly as possible to meet the demand for a bureau where scientific instruments may be accurately calibrated and tested. The standards of the bureau will be calibrated by our National Bureau of Standards at Washington, D. C.

The bureau is prepared to calibrate direct and alternating current instruments, to determine candle power of lamps, to measure temperature, both high and low, and to a limited extent standardize weights. Those desiring to have work done should address the director, Frederick A. Osborn.

PSYCHOLOGY

The psychology laboratory occupies the third floor of Philosophy hall. The fourth floor of this building which will ultimately be a part of the laboratory, is temporarily occupied by another department.

ZOOLOGY

The laboratory work of the department of zoology is conducted in six rooms located on the second floor of Science hall. Here are adequate facili-

ties for pursuing the following lines of investigation: General zoology, physiology, cytology, parasitology, plankton, entomology and research.

BAILEY AND BABETTE GATZERT FOUNDATION FOR CHILD WELFARE

On December 21, 1910, this foundation was established by a gift to the University of \$30,000 made by Sigmund Schwabacher and by the executor of the will of the late Abraham Schwabacher. The purpose of the foundation is (1) to conduct a laboratory for the mental and physical examination of children in order to determine their individual defects and aptitudes and, in accordance with the results of the examination, to suggest the best means of education and treatment; (2) to assist in establishing child welfare agencies and child study laboratories throughout the state, and (3) to carry on research in child psychology.

In December, 1915, the Bailey and Babette Gatzert Foundation for Child Welfare was created a separate department of the University.

ENGINEERING EXPERIMENT STATION

The Engineering Experiment Station was formally organized in December, 1917, in order to coordinate the engineering investigations in progress and to facilitate the developments of industrial research in the University.

The scope of the work is twofold:

(a) To investigate and to publish information concerning engineering problems of a more or less general nature that would be helpful in municipal, rural and industrial affairs;

(b) To undertake extended research and to publish reports on engineering and scientific problems.

The purpose of the station is to aid in the industrial development of the state and nation by scientific research and by furnishing information for the solution of engineering problems. Every effort will be made to cooperate effectively with professional engineers and the industrial organizations in the state. Investigations of primary interest to the individual or corporation proposing them, as well as those of general interest, will be undertaken through the establishment of fellowships.

The control of the Engineering Experiment Station is vested in an administrative staff consisting of the president of the University, the dean of the College of Engineering, ex-officio director, and seven members of the faculty.

For administrative purposes, the work of the station is organized into seven divisions: (1) forest products, (2) mining and metallurgy, (3) chemical engineering and industrial chemistry, (4) civil engineering, (5) electrical engineering, (6) mechanical engineering, (7) physics standards and tests.

Inquiries in regard to the work of the Engineering Experiment Station should be addressed to the director.

GENERAL INFORMATION

THE UNIVERSITY ORGANIZATION

The University of Washington is one of the five institutions of higher education which complete the system of public education of the state, the others are the state college and the three normal schools. To the University is given exclusive authority to instruct in the following major lines: Aeronautical engineering, architecture, commerce, fisheries, forestry, journalism, law, library science, marine engineering and medicine.

The University has concurrent authority with the state college to instruct in the following major lines: Chemical engineering, civil engineering, electrical engineering, home economics, liberal arts, mechanical engineering, mining, pharmacy, professional training of high school teachers, school supervisors, and school superintendents, and pure science.

Schools and Colleges and Their Fields.—To carry out its share of this educational responsibility, the University is organized in the following schools and colleges:

- (A) *The Colleges of Liberal Arts and Science*, which provide a liberal education in the fields of arts and of pure science, leading in a course, normally requiring twelve quarters of residence, to the degrees of bachelor of arts and bachelor of science.
- (B) The professional and technical schools and colleges, including:
 - (1) *The College of Business Administration*, covering in a course of twelve quarters the fundamentals of scientific training for industry and commerce. The degree given is bachelor of business administration.
 - (2) *The School of Education* requires for admission six quarters' of approved work in any college of the University, and in an advanced course of six quarters, prepares students for careers in the field of education as high school teachers and school administrators. The degree is bachelor of arts in, or bachelor of science in education. Students in the College of Liberal Arts may major in the department of education and take the degree of bachelor of arts.
 - (3) *The College of Engineering* has four departments, chemical, civil, electrical and mechanical engineering (including aeronautical and marine), their curricula leading in twelve quarters to the degree of bachelor of science in the special field chosen by the student. The degree of master of science in each field is open to graduate students.
 - (4) *The College of Fine Arts* offers curricula of twelve quarters in architecture, vocal, instrumental, or public school music, or musical theory, painting and design, public school drawing, music and drawing, and dramatic art, leading to the degrees of bachelor of architecture, bachelor of music and bachelor of fine arts or bachelor of liberal arts, with a major in one of the subjects named.
 - (5) *The College of Fisheries*, recently established, lays a scientific foundation for work connected with the fisheries industry, one of the chief resources of the Pacific Coast. Bachelor of science in fisheries is the degree offered.

- (6) *The College of Forestry* offers a curriculum of twelve quarters preparing for work in scientific forestry or in lumbering industry. Bachelor of science is the degree offered. The full professional course is fifteen quarters, with a liberal allowance of electives, giving opportunity for specialization in forest service and state work, logging engineering, forest products, or the lumber business. For this course the degree of master of science may be given in the Graduate School.
- (7) *The School of Journalism*, requires for entrance the junior certificate, elsewhere explained, based on the completion of the first two years of college work in arts or science. The curriculum leads to the degree of bachelor of arts in journalism and prepares its students for practical newspaper work.
- (8) *The School of Law* is the standard of approved law schools for admission to the bar of this state. For admission the student must present a junior certificate from the College of Liberal Arts or the College of Science, or its equivalent. The curriculum of the school requires three school years or nine quarters, and leads to the degree of bachelor of laws. The degree of master of laws is also given. Students may carry on work in liberal arts or science and law concurrently, taking both bachelors' degree in six years, or eighteen quarters.
- (9) *The Library School* by means of a technical curriculum extending through three quarters based upon either three or four years of academic study prepares students for service in librarianship. Upon the completion of the library school curriculum (46 credits), when based upon three years of academic study, the bachelor of arts degree is granted. When based upon four years of academic study, for which the student has received the baccalaureate degree, the professional degree of bachelor of science in library science is granted.
- (10) *The College of Mines* offers four-year or twelve-quarter curricula, leading to the degree of bachelor of science in mining engineering, geology and mining, metallurgical engineering, or coal mining engineering. The fields open to graduates of this college are indicated by these divisions. The college also offers a curriculum in ceramics (clay, glass and cement products.) The degree of master of science, with a major in one of these lines, may be obtained in the Graduate School.
- (11) *The College of Pharmacy* offers three-year and four-year courses, the first giving preparation in technical and commercial pharmacy, and the second providing a well-rounded scientific training in this field. The three-year course leads to the degree of pharmaceutical chemist, and the four-year course to that of bachelor of science in pharmacy. A fifth year, taken in the Graduate School offers an opportunity for graduate research work and leads to the degree of master of science in pharmacy.
- (C) *The Graduate School* offers work leading to the degrees of master of arts, master of science, master of arts or master of science in technical subjects, certain technical or professional master's degrees (as, for example, master of business administration), and

doctor of philosophy. A master's degree presupposes at least one year of resident work of high grade and special character, and a doctor's degree at least three years of such work. The University is placing increased emphasis upon its graduate work.

Definitions and Explanations.—In all statements relating to the University the word *course* refers to a single study pursued for a definite period, for which credit may be given toward University requirements for graduation in accordance with the number of hours taken; a *curriculum* is a group of courses arranged to be taken consecutively or concurrently; a *department* is the unit of instructional organization in a particular science or art, as the department of geology; a *college* gives full curricula, beginning with the work of the freshman year and covering twelve quarters; while the work of a *school* is based upon two or more years of college work.

The four-year programs of the Colleges of Liberal Arts and Science are further divided into the *lower division* (freshman and sophomore) and *upper division* (junior and senior). The *junior certificate* is given for the completion of the requirements of the lower division in the College of Liberal Arts. The more advanced work of the upper division leads to graduation with the bachelor's degree. The specialized work of the schools is upper division or graduate work and requires the junior certificate as a minimum to enter upon it.

Special Curricula Within the Schools.—Certain semi-professional curricula are also given for which no special school or college is provided. Such is the curriculum in nursing and public health, given in the College of Science.

The University does not give a medical course, but it offers a pre-medical curriculum especially planned as a foundation for study in a medical school. This may be two years in length for schools not requiring college graduation, or four years for schools requiring that amount of preparation.

Under the provisions of the National Defense Act, students in the University may attain commissions as reserve officers in the United States Army by meeting the requirements for advanced work in military science. This is done without interference with the students' regular academic work.

The Four-Quarter System.—The University is now operated on the four-quarter system, each quarter having approximately twelve working weeks. These quarters or terms begin in October, January, April and the latter part of June. The University is closed only through the month of September. A careful reading of the calendar will show the working of this plan in detail. Students may enter at the beginning of any quarter. This permits them to do a full quarter of university work in the summer, in most curricula, to complete a university course in three years, if health and resources permit, or otherwise to adjust their university residence to meet personal conditions. This flexible plan is of especial advantage in the University of Washington because the absence of extremes in climatic conditions is favorable to mental work at all times of the year.

ADMISSION TO THE UNIVERSITY

GENERAL STATEMENT

All correspondence regarding the admission of students to the resident course of the University, as well as the requirements for graduation, should be addressed to the registrar.

Students are admitted to the resident work of the University by certi-

ficate or by examination, only recommended graduates of fully accredited four-year secondary schools being admitted on certificate. Students are classified as graduates and undergraduates. Undergraduates are classified as regular students (freshmen, sophomores, juniors, and seniors), unclassified students, and special students.

ADMISSION BY CERTIFICATE

Application for Admission to Freshman Standing.—A graduate of a four-year accredited secondary school, whose course has covered the requirements for entrance as outlined on pages 43-45 and who meets the scholarship requirement outlined below, will be admitted upon recommendation of his principal and the presentation of a satisfactory certificate. Since the school diplomas do not give the necessary information, they cannot be accepted for this purpose. The principals of all accredited high schools in the state are furnished with the official blanks, which may also be obtained from the registrar's office.

Applications for Admission to Advanced Standing.—Applicants for advanced standing are required to furnish a complete certified statement of both preparatory and college credits, together with a letter of honorable dismissal from the institution last attended.

The credentials for students expecting to enter the University in the autumn quarter, 1922, should be filed in the registrar's office not later than August 15.

Scholarship Requirement.—The University has adopted a scholarship requirement of a grade of 80 or better in at least two-thirds of the subjects accepted for graduation from high school and for entrance to the University. This requirement will not be imposed on students who have graduated from high school, before September, 1921. In the fall of 1922, this requirement will have to be satisfied in respect to the subjects taken during the senior year of 1921-1922; in the fall of 1923, in respect to subjects taken during 1921-1922 and 1922-1923, the junior and senior years respectively; in the fall of 1924, in respect to subjects taken in 1921-1922, 1922-1923 and 1923-1924; and in the fall of 1925, in respect to the full course in high school (except such portion of it as may have been completed previous to September, 1921).

Any graduate of an accredited secondary school who fails to meet the scholarship requirement for admission, has the privilege of qualifying for admission by passing the regular University entrance examinations in a sufficient number of subjects in which he has fallen below the grade of 80, to bring his average grade up to the required two-thirds above 80. The successful passing of these examinations, however, will require a very thorough review of the subjects concerned after the work has been completed in high school.

Graduates desiring to take advantage of this privilege should consult with their principals regarding the best method of preparing for the entrance examinations. They should also notify the Registrar of the University of their intention of taking examinations.

Accredited Schools.—The list of accredited secondary schools in the State of Washington is as follows for the year 1922-1923:

UNIVERSITY OF WASHINGTON

I. PUBLIC HIGH SCHOOLS

Aberdeen	Enumclaw	Napavine	Shelton
Almira	Ephrata	Newport	Skykomish
Anacortes	Everett	Nooksack	Snohomish
Arlington	Fairfield	North Bend	South Bend
Asotin	Fall City	Oakesdale	Spangle
Auburn	Farmington	Oak Harbor	Spokane
Battle Ground	Ferndale	Oakville	Lewis and Clark
Bellingham	Fife	Odessa	North Central
Whatcom	Poster	Okanogan	Orchard Avenue
Fairhaven	Friday Harbor	Olympia	Sprague
Bickleton	Garfield	Omak	Stanwood
Black Diamond	Goldendale	Oroville	Stevenson
Blaine	Grandview	Orting	St. John
Bothell	Granger	Outlook	Sultan (U. H.)
Bremerton (U. H.)	Granite Falls	Pateros	Sumas
Brewster	Harmony	Palouse	Sumner
Buckley	Harrington	Pasco	Sunnyside
Burlington	Hartline	Pe Ell	Tacoma
Burton (U. H.)	Hillyard	Pomeroy	Lincoln
Camas	Hoquiam	Port Angeles	Stadium
Cashmere	Ilwaco	Poulsbo	Tekoa
Castle Rock	Issaquah	Port Townsend	Tenino
Centralia	Kalama	Prescott	Toledo
Chehalis	Kapowsin	Prosser	Tolt (U. H.)
Chelan	Kelso	Pullman	Tonasket
Cheney	Kennewick	Puyallup	Toppenish
Chewelah	Kent	Raymond	Touchet
Chimacum	Kettle Falls	Reardan	Twisp
Clarkston	Kirkland (U. H.)	Redmond	Vader
Cle Elum	Kittitas (U. H.)	Renton	Valleyford
Colfax	La Conner	Republic	Vancouver
Colville (U. H.)	La Crosse	Richland	Vashon
Coulee City	Latah	Ridgefield	Vera, Greenacres
Coupeville	Leavenworth	Ritzville	Waitsburg
Cowiche	Lemah	Rochester	Walla Walla
Creston	Lind	Rockford	Wapato
Davenport	Lower Naches	Rosalia	Washougal
Dayton	Lynden	Roslyn	Washtucna
Deer Park	Mabton	Roy	Waterville
Deming	Malden	Seattle	Wenatchee
Doty	Marysville	Ballard	White Salmon
Dryad	Mead	Broadway	Wilbur
Duvall	Medical Lake	Franklin	Wilson Creek
Eatonville	Meridan (U. H.)	Lincoln	Winlock
Edison	Monroe	Queen Anne	Winslow
Edmonds	Montesano	West Seattle	Woodland
Edwall	Mossy Rock	Sedro Woolley	Yacolt
Ellensburg	Mount Vernon (U. H.)	Selah	Yakima
Elma	Moxee	Sequim	Zillah
Endicott			

II. OTHER SECONDARY SCHOOLS IN WASHINGTON

Annie Wright Seminary, Tacoma	St. Dominic's Academy, Everett
Holy Angels Academy, Seattle, (provisional)	St. Martin's College, Lacey (high school department)
Forest Ridge Convent, Seattle, (provisional)	St. Nicholas School, Seattle
Holy Names Academy, Seattle	St. Paul's Academy, Walla Walla (provisional)
Holy Names Academy, Spokane	Aquinas Academy, Tacoma
Moran School, Rolling Bay	Walla Walla College Academy, Walla Walla (provisional)
Pacific Lutheran Academy, Parkland	Y. M. C. A., Seattle (provisional)
Mme. Pless School, Seattle (provisional)	
Seattle Pacific College, Seattle (academy)	
Spokane College, Spokane (preparatory department) (provisional)	

III. SCHOOLS OUTSIDE OF WASHINGTON

Graduates of secondary schools outside of Washington will be admitted on the same terms as graduates of accredited schools of Washington, provided the school in question is fully accredited, (1) by the North Central Association of Schools and Colleges, (2) by the New England College Entrance Certificate Board, or (3) by the leading university whose standards of admission are practically the same as those of the University of Washington.

Graduates of four-year high schools in Alaska that are recommended by the Commissioner of Education for Alaska will be accepted, until further notice, on the same basis as graduates of accredited schools in Washington.

Admission by Examination.—Applicants for admission by examination are required to pass, with grades above 80 per cent in at least two-thirds of the required work an examination based on a four-year course amounting in the aggregate to fifteen units* and covering the requirements of the college that the student wishes to enter.

Entrance examinations are held at the office of the Registrar on the following dates:—July 26, 27, 28; September 27, 28, 29, and December 20, 21, 22, 1922; March 19, 20, 21, and June 13, 14, 15, 1923.

Persons desiring to take entrance examinations should fill out application blanks at the registrar's office several days before date of examination. Blanks will be mailed to applicants on request.

The schedule of hours for examination may be obtained from the registrar.

Certificates of successful examinations before the College Entrance Examination Board will be accepted in lieu of matriculation examinations conducted by the University of Washington. With this exception, however, the only examinations recognized for giving entrance credit are the regular scheduled examinations held at the registrar's office, or special examinations, authorized by the registrar.

Examinations for Exemption in English.—The department of English will give an examination in English composition for those students who wish to attempt it, with the view of being excused from all or a part of the required course in college composition. It is hoped that a large number of entering students will present themselves for this examination, which will be held on the same dates as the regular entrance examinations for the autumn quarter.

REQUIREMENTS FOR ADMISSION

Correspondence.—Credentials and all correspondence relating to admission to any college or school of the University should be addressed to the Registrar, University of Washington, Seattle.

Freshman Standing.—Freshman standing in the University is granted to any recommended graduate of a four-year accredited secondary school who meets the scholarship requirement outlined on page 41 and presents fifteen units* of credit, distributed as follows:

- (a) 3 units of English.
- (b) 1 unit of algebra.
- (c) 1 unit of plane geometry.
- (d) 3 units selected from one of the following groups (or 2 units if 3 units of mathematics are presented).
- ** (1) Foreign language, either ancient or modern, (at least 2 units in one language; not less than one unit will be counted in any language).
 - (2) History, civics, economics (at least one unit to form a year of consecutive work in history).
 - (3) Physics, chemistry, botany, zoology, general biology, physical geography, geology, physiology. (Not less than one unit will be counted in physics, chemistry, or general biology. No science will be counted as applying on this requirement unless it includes a satisfactory amount of laboratory work).
- (e) 2 units in subjects presented in the above groups (1) (3).

*To count as a "unit," a subject must be taught five times a week, in periods of not less than forty-five minutes, for a school year of not less than thirty-six weeks.

**A student who has not taken in high school the amount of foreign language which may be required for admission to the college that he plans to enter, will make up the deficiency in the University as part of his regular schedule of work, but without receiving college credit for it. For the Colleges of Science and Fine Arts, the requirement may be satisfied by two units or 20 quarter credits in any one foreign language. For the College of Liberal Arts, by two units or 20 quarter credits in one of the following: Latin, Greek, French, German, Spanish, Scandinavian, or Italian. A student failing to present two units in one of these languages, but presenting two units in another foreign language, will receive college credit for required foreign language taken in the University.

- (f) 5 units selected from subjects accepted by an approved high school for its diploma. Not less than one full unit will be counted in physics, chemistry, general biology, or a foreign language. A maximum of 4 units will be counted in vocational subjects, except for admission to the Colleges of Business Administration and Fine Arts. For admission to the College of Business Administration, a maximum of 8 units in vocational subjects will be accepted, of which at least 4 units must be in commercial branches; and a student presenting 8 such vocational units and 2 units in history, and fulfilling requirements (a), (b) and (c), will be given freshman standing in that college without being held for requirements (d) and (e). If the student is transferred later to another college, only 4 vocational units will be counted, and the student will be required to meet the requirements (d) and (e). For admission to the College of Fine Arts, a maximum of 5 units in vocational subjects will be accepted, provided that not less than 2 units of the five are in fine arts subjects. If the student is transferred later to another college only 4 vocational units will be counted.

A candidate who fulfills these requirements will be admitted to freshman standing in any of the colleges of the University. However, if he has not taken in high school certain of the subjects recommended for admission to the college that he may decide to enter, he will take them in the University, or if they are not offered in the University, he will take them in some accredited secondary school or with a tutor, as part of his authorized schedule of work. Such subjects, if taken in the University, may apply toward a degree, as far as elective courses make this practicable. In certain curricula, however, these subjects must be taken in addition to the prescribed subjects. A student entering without having satisfied any such prerequisite is required to register so that the prerequisite will be satisfied not later than the end of his fourth quarter of residence. A student failing to meet this requirement is ineligible for readmission until the prerequisite has been satisfied.

Entrance with condition, to freshman standing, is not permitted. Excess admission credit does not establish any presumptive claim for advanced standing, unless the student has taken a graduate course in the high school of at least one semester.

SPECIFIC SUBJECTS RECOMMENDED FOR ADMISSION TO THE SEVERAL COLLEGES

COLLEGES OF LIBERAL ARTS AND SCIENCE (GENERAL COURSES)

- | | |
|---------------------|------------------------------------|
| 3 units of English. | 1 unit of plane geometry. |
| 1 unit of algebra. | ††2 units in one foreign language. |

CURRICULUM PREPARATORY TO MEDICINE AND CURRICULUM FOR NURSES (COLLEGE OF SCIENCE)

- | | |
|---|--|
| 3 units of English. | 1 unit of medieval and modern history. |
| 1 unit of algebra. | 1 unit of physics. |
| 1 unit of plane geometry. | ††2 units in one foreign language. |
| 1 unit of United States history and civics. | |

COLLEGE OF FINE ARTS

- | | |
|------------------------------------|--|
| 3 units of English. | 1 unit in one of the following: physics, chemistry, botany, zoology. |
| 1 unit of algebra. | 1 unit in a history or ½ unit in U. S. history, and ½ unit civics. |
| 1 unit of plane geometry. | |
| ††2 units in one foreign language. | |

†In satisfying entrance requirements with college courses, a minimum of ten quarter credits is counted as the equivalent of the entrance unit.

††A student who has not taken in high school the amount of foreign language which may be required for admission to the college that he plans to enter, will make up the deficiency in the University as part of his regular schedule of work, but without receiving college credit for it. Any modern foreign language is accepted for entrance credit (from an accredited school, or by examination), which the student can read, write and speak, and the grammar and literature of which he has studied as a part of his secondary training. For the Colleges of Liberal Arts, the prescribed languages are, Latin, Greek, French, German, Spanish, Scandinavian, Italian. However, if a student presents 2 entrance units in another foreign language he may receive college credit for work taken in the University in a prescribed foreign language.

GENERAL INFORMATION

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COLLEGE OF BUSINESS ADMINISTRATION

- | | |
|---------------------|--|
| 3 units of English. | 1 unit of plane geometry. |
| 1 unit of algebra. | 2 units of history, (American and modern history preferred). |

COLLEGES OF ENGINEERING AND MINES

- | | |
|--|---------------------|
| 3 units of English. | 1 unit of physics. |
| 1½ units of elementary and advanced algebra. | ½ unit of shopwork. |
| 1½ units of plane and solid geometry. | |

COLLEGE OF FORESTRY

- | | |
|--|------------------------|
| 3 units of English. | 1 unit of physics. |
| 1½ units of elementary and advanced algebra. | 1 or ½ unit of botany. |
| 1½ units of plane and solid geometry. | |

COLLEGE OF PHARMACY

For the three-year course

- | | |
|---------------------|---------------------------|
| 3 units of English. | 1 unit of plane geometry. |
| 1 unit of algebra. | |

For the four-year course

- | | |
|------------------------------------|--|
| 3 units of English. | 1 unit in one of the following: physics, chemistry, botany, zoology, physiology, general biology. (must include satisfactory amount of laboratory work). |
| 1 unit of algebra. | |
| 1 unit of plane geometry. | |
| ††2 units in one foreign language. | |

COLLEGE OF FISHERIES

- | | |
|---------------------|---------------------------|
| 3 units of English. | 1 unit of plane geometry. |
| 1 unit of algebra. | |

SCHOOL OF LAW, LIBRARY SCHOOL AND SCHOOL OF JOURNALISM (See following page.)

Unclassified Standing.—A graduate of a four-year accredited secondary school who meets the scholarship requirements outlined on page 41; but who does not meet the specific subject requirements for admission to freshman standing may, upon recommendation of his principal, be admitted as an unclassified student. Such a student will be allowed to enroll for those courses only for which he has had adequate preparation. By virtue of his classification he is not a candidate for a degree, but he may ultimately become a candidate for a degree by fulfilling as part of his college prescriptions all the requirements for entrance to and graduation from the college in which he is registered. An unclassified student is required to register, so that all prerequisites will be satisfied by the end of his fourth quarter of residence. Failure to comply with this requirement will render a student ineligible for readmission until regular standing has been acquired.

Special Students.—All courses offered by the University are organized for regular students, that is, students who have had the equivalent of a good high school education fully covering college entrance requirements. Under certain regulations, however, a mature person who cannot be admitted to freshman standing or as an unclassified student, may be admitted, classified

††A student who has not taken in high school the amount of foreign language which may be required for admission to the college that he plans to enter, will make up the deficiency in the University as part of his regular schedule of work, but without receiving college credit for it. Any modern foreign language is accepted for entrance credit (from an accredited school, or by examination), which the student can read, write and speak, and the grammar and literature of which he has studied as part of his secondary training. For the Colleges of Liberal Arts, the prescribed languages are, Latin, Greek, French, German, Spanish, Scandinavian, Italian. However, if a student presents 2 entrance units in another foreign language he may receive college credit for work taken in the University in a prescribed foreign language.

as a special student, and allowed to register for those courses only for which he shows special preparation, in addition to such subjects as may be prescribed by the Committee on Special Students.

The number of such students admitted is necessarily limited by the facilities of the University. The regulations governing the admission of special students are as follows:

1. An applicant for admission to any college or school of the University, as a special student must be at least twenty-one years of age.

2. In general, a student from an accredited high school will not be admitted to this classification if he has been in attendance in the high school during the previous year.

3. All available certified credits for previous school work must be admitted to the registrar at least a month before the beginning of the quarter in which the student desires to attend, and an application blank for admission as a special student filled out, giving, in addition to other information, the kind of work desired, the reasons for desiring such work, and, when no credits can be presented, a detailed statement of any previous educational work and practical experience and a list of subjects in which the candidate is prepared to take entrance examinations.

4. Registration as a special student is for one quarter only. Re-registration will be refused if the student has not shown satisfactory earnestness and definiteness of purpose, if his work has not been good or if he has not complied with conditions prescribed by the committee on special students.

5. By virtue of his classification, a special student is not eligible for any degree. He may ultimately become a candidate for a degree, however, by completing the admission requirements of the college in which he is registered.

6. Special students are not eligible to take part in student activities.

7. Persons desiring to be admitted as special students will apply to the registrar for the necessary application and credential blanks.

In order that applicants for admission as special students may receive full consideration, their applications should be filed with the registrar four weeks, at least, before the beginning of the quarter in which the applicant wishes to attend the University. Applications for the autumn quarter should be filed not later than August 15.

Advanced Undergraduate Standing.—Students from classes above the first year in other colleges of recognized rank, who present letters of honorable dismissal, may be admitted to the advanced standing for which their training seems to fit them. No advanced credit will be given for work done in institutions whose standing is unknown, except upon examination. Definite advanced standing will not be given until the student has been in residence for at least one quarter.

Advanced Credit by Examination.—If a student desires to be examined for advanced credit in work that he has not followed in a college class at the University, he may, with the approval of the head of the department concerned, do so. Credits, with grades so obtained, must be certified to by the examiner and the dean concerned, and shall not be given for work done while the student is in residence.

A student desiring to take an examination for advanced credit must first file an application and obtain a permit at the registrar's office.

Special claims for advanced credit based on credentials and passed on by a committee consisting of the registrar, the dean of the college and the heads of the departments concerned.

Admission to the School of Law and the School of Journalism.—Clear entrance to the College of Liberal Arts or the College of Science, and 102 hours (two years) of advanced credit in freshman and sophomore courses, covering all prescriptions for the junior certificate, are required for admission to the School of Law and the School of Journalism.

Admission to the School of Education.—Clear entrance to any college of the University and completion in that college of at least 90 hours of college credit in courses approved by the faculty of the School of Education and the faculty of the college concerned, and of 10 hours in military science or physical education, are required for admission to the School of Education.

Admission to the Library School.—Students who have qualified for senior standing in the College of Liberal Arts or the elective curricula of the College of Science, having earned 145 credits including ten credits in military science or physical education and all required work except the completion of a major, may be admitted to senior standing in the Library School as candidates for the degree of bachelor of arts, the requirements for which can ordinarily be fulfilled in one academic year.

Graduate students who hold baccalaureate degrees from any college or university in good standing and whose undergraduate work has included the equivalent of at least 20 college credits in each of two modern foreign languages, German and French preferred, may be admitted to the Library School as candidates for the degree of bachelor of science in library science, the requirements for which can ordinarily be fulfilled in one academic year.

Admission of Normal School Graduates to Advanced Standing.—Graduates of the normal schools of this state and of institutions of like standing elsewhere, who have completed at least two full years of normal school work after graduating from a four-year accredited high school, will be admitted to junior standing in the Colleges of Liberal Arts and Science, or the School of Education. For graduation with the degree of bachelor of arts, bachelor of science, or bachelor of arts or science in education, these students are required to earn a minimum of 90 credits in the University, including the satisfaction of such of the requirements for graduation from the respective curricula as have not been fairly covered by previous work. Normal graduates desiring admission to any of the other colleges of the University may be given such exemption or credit as their preparation seems to justify.

Admission to Graduate Standing.—A bachelor's degree from a college or university of good standing is required for admission to the Graduate School.

Auditors.—With the consent of the instructors concerned, any mature person, not registered as a student in the University, may be enrolled at the registrar's office as an auditor in not more than two courses, upon payment of a fee of \$10 a quarter. This provision does not apply to laboratory courses, or to any courses offered in the summer quarter.

NOTE.—Numbers in brackets are those of rules in the old Handbook of Rules and Regulations.

Rule 1. (a) In the summer quarter, any mature person, with the consent of the dean and the instructor concerned and upon payment of the regular tuition fee, may enroll at the registrar's office as auditor in any number of non-laboratory courses or the lecture parts of any number of laboratory courses.

(b) Persons who, while registered in the University, have attended courses as auditors, shall, in no case, be permitted to take the examinations in such courses or obtain credit therefor. [H.B.—27].

No person may regularly attend any course in which he has not been registered, or enrolled as an auditor.

REGISTRATION

Registration for all students for the autumn quarter will take place on Monday and Tuesday, October 2 and 3, 1922; for the winter quarter on Wednesday, January 3, 1923; for the spring quarter, Tuesday, March 27, 1923; and for the summer quarter, Tuesday, June 19, 1923.

Registration is complete when the election blank has been signed by all required registering officers and the student, when all required fees have been paid, and when all blanks have been left in the registrar's office or other place designated by the registrar. Registration by proxy is not permitted.

Late Registration.—The dates noted above are officially set apart for registration and enrollment, and all students are expected to complete their registration (including payment of all required fees) in those days. Students who fail to do this are charged an additional fee of \$2 for the first day's delay, and a further cumulative fee of \$1 for each day thereafter during the first week following the final official registration date. After the first week following the final official registration date, no student will be permitted to register except by special action of the Board of Deans. (Students who have been granted a leave of absence or withdrawn in good standing during a preceding quarter may, with the consent of instructors concerned be given the privilege of late enrollment in order to complete unfinished courses.)

Changes in Registration.—A fee of \$1 is charged for each change made by a student in his election of studies after his registration is completed, unless such change is made upon the initiative of University authorities.

Rule 2. Unsatisfied prerequisites take precedence over other subjects. Any student having any unsatisfied entrance prerequisite must so register for work that the deficiency will be removed by the end of his fourth quarter of residence. In special cases, permission to postpone the removal may be granted by the dean of the proper college; provided such permission be filed and entered on the student's record card before the grades for the student's third quarter are in. The registrar is authorized to refuse registration to any student not complying with this rule. Appeal from the registrar's decision may be taken to the Board of Deans. [H.B.—19].

Rule 3. Except with the consent of his dean:

(a) No student shall be registered for less than 12 hours of work;

(b) No student shall be registered for more than 18 hours of work (exclusive of drill or physical training), or the number for the respective quarters in the prescribed curricula. [H.B.—20].

Rule 4. With the consent of his dean, a junior or senior whose previous scholastic record has been exceptionally good, may be registered for a maximum of 19 hours (exclusive of drill or physical training). [H.B.—21].

Rule 5. No student may be registered for more than 19 hours (exclusive of drill or physical training). [H.B.—22].

Rule 6. Work taken to remove entrance deficiencies shall count as part of the schedule allowed. [H.B.—23].

Rule 7. A student who is obliged to do outside work must enter on his registration blank a statement of the nature of the work and the number of hours per week so used. In considering petitions for reinstatement the Board of Deans shall take no cognizance of outside work if it has not been noted on the student's registration blank. [H.B.—24].

Rule 8. A student who registers for an elective course must ultimately complete the course, unless relieved of the necessity by his dean. A student properly withdrawn and given a "W" shall not be affected by this rule. [H.B.—25].

PHYSICAL EXAMINATIONS

All students on entering the University for the first time are required to present themselves for physical examination at the call of the department of physical education. Failure to be examined constitutes a delinquency on the records.

EXPENSES

Tuition and Fees.—By authority of the special legislative act of the session of 1921, the following tuition and fees will be collected beginning with the autumn quarter of 1921.

GENERAL TUITION FEES

Resident Tuition.—Fifteen dollars (\$15) general tuition per regular academic quarter from each student who has been domiciled within the state of Washington or the territory of Alaska for the period of one year prior to the date of registration.

Non-resident Tuition.—Fifty dollars (\$50) tuition per regular academic quarter from each student who has not been domiciled in the state of Washington or the territory of Alaska for the period of one year prior to registration.

Library Fee.—Five dollars (\$5) a quarter will be collected from each regular student, to be known as a library fee.

Associated Students Fee.—An associated student membership fee of ten dollars (\$10) for the year (exclusive of summer quarter) is collected of all regularly enrolled students upon registration.

Exemptions.—All honorably discharged service men or women who served in the military or naval service of the United States during the late world war; and all honorably discharged service men who served in the military or naval services of any of the governments associated with the United States during the said war, provided they were citizens of the United States at the time of their enlistment and who are again citizens at the time of their registration in the University may on application and showing that such fee will be an individual expense be exempted from the payment of general tuition fee provided they have been domiciled in the state of Washington or territory of Alaska for the period of one year prior to the date of registration. If any such service men have not been domiciled in the state of Washington or territory of Alaska for one year prior to registration they are exempt up to twenty-five dollars (\$25) per quarter.

Deserving students (domiciled in the state of Washington or the territory of Alaska) who, after a quarter in residence have shown a marked capacity for the work done by them in school, in lieu of paying the general tuition fee, above provided for, may give their promissory notes with interest at the rate of four per cent per annum. All applications for this concession must be presented to the comptroller's office.

Refunding Fees.—Tuition and other general fees are not returnable except in case of sickness or causes entirely beyond the control of the student. No portion of the returnable fees shall be returned for voluntary or enforced withdrawal after thirty (30) days from the date of registration of the students. In no case shall more than one-half of the fees be refunded. Students withdrawing under discipline forfeit all rights to the return of any portion of the fee.

OTHER CHARGES

Auditor's Tuition Fee.—A fee of \$10 a quarter will be charged all persons enrolling as auditors.

Part Time Tuition Fee.—A fee of \$10 a quarter will be charged persons registering for partial courses not exceeding six (6) credits.

Excess Hour Fee.—A fee of \$1 per credit per quarter will be charged each student registering for excess hours.

Law Library Fee.—Ten dollars (\$10) per quarter special law library fee from each student registering in law, in addition to the general tuition fee mentioned above. Students other than majors in law taking work in the School of Law will pay at the rate of one dollar (\$1) for each credit hour of law work elected up to a maximum of \$10 per quarter.

Short Course Tuition.—Twenty dollars (\$20) from each student registering in any short course—mining, forestry, fisheries, etc.

Summer Quarter Tuition.—Twenty dollars (\$20) from each student registering in the summer, for the quarter or any part thereof.

Marine Biological Station Tuition.—Thirteen dollars (\$13) of which ten dollars (\$10) is for tuition and three dollars (\$3) is for laboratory fee,

Military Uniform Deposits.—Each student who is held for military drill is required to make a deposit of \$15 before he draws his uniform. Thirteen dollars (\$13) of this amount is returnable upon the presenting of proper clearance papers from the military headquarters; the two dollars (\$2) is retained as a breakage fee. The making of this deposit in no way entitles the student to ownership in any part of the military equipment or clothing issued.

Special Examinations.—A fee of \$1 will be charged for all examinations given outside of the regular schedule.

Late Registration.—A penalty of \$2 is imposed for the first day's delay in registering and \$1 per day additional thereafter up to the close of the week during which registration is permitted.

Changes of Registration.—A fee of \$1 will be charged for changes in election, including additions or withdrawals of individual courses after completion of registration.

Diploma Fee.—The fee charged to graduates is \$5 for each one receiving a baccalaureate or higher degree, or a diploma in pharmacy, and \$5 for each one receiving a teacher's diploma. *This teacher's diploma fee does not include the legal registration fee of \$1 paid to that county school superintendent who first registers a teacher's diploma.*

LABORATORY FEES AND DEPOSITS

The following laboratory fees and deposits will be collected quarterly during the ensuing year, 1922-1923. With few exceptions, these fees are not returnable in whole or in part, and in no case can any rebate be allowed after 35 days from date of registration.

Anatomy—105, 106, 107	\$3.00
104, 108	\$5.00
101, 102, 103	\$7.50
200 To be arranged.	
Architecture—54, 55, 56, 104, 105, 106, 154, 155, 156	\$2.50
Astronomy—1, 11, 123, 171	\$2.00
Bacteriology and Pathology—4, 101, 102	\$3.00
110, 111, 112, 201, 202, 203, 204, 205, 206	\$4.00
Botany—8, 9, 10, 271, 272, 273	\$1.00
1, 2, 3, 11, 12, 13, 14, 26, 53, 105, 106, 107, 119, 130, 140, 141, 142, 143, 144, 145, 200, 233, 250, 251, 252, 253, 254, 261, 262, 263, 279, 280	\$2.50

Ceramics—180	\$5.00
110, 191, 192, 193	\$10.00
121, 122, 123	\$12.00
131, 132, 133	\$5.00 or \$10.00
Chemistry—All courses except 52, 200, 216, 221, 222, 223, 224, 225, 231, 232, 233	\$7.50
Breakage ticket	\$.50
Civil Engineering—1, 4, 21, 22, 23, 24, 27, 30, 38, 55, 56, 126, 142, 167	\$2.00
Economics and Business Administration—All courses \$1.50 ex- cept those listed below:	
64, 65, 111, 112, 154, 155, 156, 157, 158, 185	\$3.50
11, 12 Elementary accounting	\$5.50
81, 82, 83—typewriting and 84, 85, 86, 87, shorthand	\$10.00
Education—166, 167, 168, 215, 221, 222	\$2.00
150, 223, 285, 286, 287	\$3.00
Electrical Engineering—132, 141, 181, 182, 196, 198	\$2.00
102, 110, 112, 122, 162, 164	\$4.00
Fisheries—3, 4, 5, 101, 102, 103, 104, 105, 117, S. C. 8, S. C. 9, S. C. 12, S. C. 13	\$3.00
106, 107, S. C. 7	\$4.00
Forestry and Lumbering—1, 5, 51, 52, 53, 58, 101, 102, 104, 105	\$2.50
187, 188, 213, 214, 215	\$3.00
Geology—11, 12, 112, 113, S. C. 1	\$1.00
1, 2, 5, 31, 120, 123, 124, 131, S. C. 2	\$2.50
21	\$3.00
Home Economics—3, 8, 43, 101, 102, 189, 193, 200, 207	\$2.00
25, 27, 32, 35, 112, 113, 121, 133, 135, 143, 183, 188, 191, 192, 204, 205, 206	\$4.00
1, 2, 4, 5, 6, 105, 106, 107, 108, 110	\$6.00
Journalism—90, 91, 92, 104, 105, 160, 161, 162	\$1.00
51, 61, 75, 76, 101, 120, 130, 131, 133, 134, 135, 136, 140, 141, 142, 170, 171, 172, 173, 174, 175	\$2.00
(Maximum fees for any one student \$2.50 a quarter)	
Library Science—One or more courses—\$1.50 a quarter.	
Lockers—Mines, Chemistry, Engineering, Home Economics and Anatomy Buildings, a year	\$.50
Mechanical Engineering—1, 2, 3, 53, 54, 55, 83, 105, 106, 107, 151, 152, 153, 167	\$2.00
Metallurgy—103, 163	\$5.00
102	\$10.00
153, 160	\$12.00
101, S. C. 1	\$20.00
Mining—S. C. 2, S. C. 3	\$3.00
101, 151	\$5.00
152, 176	\$10.00
153, 154, 155	\$5.00 or \$10.00
Music—18, 19, 20, 68, 69, 70, 118, 119, 120, 168, 169, 170, as listed below:	
Adams, Burch, Ferryman, 1 lesson per week	\$15.00
2 lessons a week	\$30.00
Venino, Van Ogle, Rosen, Tilly, Wood, Kirchner, 1 lessons a week	\$22.00
2 lessons a week	\$44.00

Glen, 1 lesson a week, \$27.00—2 lessons a week	\$54.00
Piano practice room, an hour per day for the quarter	\$3.00
Pipe organ, an hour per day for the quarter	\$12.50
Painting, Sculpture and Design—5, 6, 7, 9, 10, 11, 53, 54, 55, 103, 104, 157, 158	\$2.00
56, 57, 58, 72, 73, 74, 107, 108, 109, 160, 161, 162, 163, 164, 165	\$3.00
Pharmacy—15	\$1.00
9, 10, 11, 109, 110	\$3.00
7	\$4.50
1, 2, 3, 5, 6, 105, 106, 107	\$7.50
113, 114, 115, 121, 122, 123, 129, 130, 131, 201, 202, 203, to be arranged.	
Physical Education—Locker and apparatus, a quarter	\$.50
Paid by all taking one or more courses except 87, 88, 89 (golf)	\$3.00
Women's suits, style and cost to be arranged.	
Physics—1, 2, 3, 47, 48, 49, 50, 51, 54, 89, 90, 97, 98, 99, 103, 104, 106, 113, 114, 170, 175, 180	\$2.50
Political Science—1	\$1.00
Psychology—1	\$2.00
Zoology and Physiology—158	\$1.00
1, 2, 3, 4, 7, 10, 11, 101, 102, 105, 106, 107, 108, 155, 156, 157	\$2.50
54, 55, 56	\$3.00
151, 152, 153	\$5.00
201, 202, 203, 204, 205, 206, to be arranged.	

Board and Room.—The University dormitories consist of Lewis hall and Clark hall for women and Lander hall and Terry hall for men. During the ensuing year \$32 a month will be charged for room and board at these residence halls. The rooms are furnished with necessary articles of plain furniture, but the student is expected to supply his own bed linen, bedding, towels, and rugs.

An amount equal to the first month's account is paid in advance and left on deposit to be applied on the board and room account for the last month of the school year.

All remittances should be made in favor of the University of Washington and be addressed to the comptroller of the University of Washington, Seattle.

The University also operates The Commons on the campus where students so desiring may secure the best of food at reasonable rates, cafeteria style.

Outside the campus, board and room may be secured at rates ranging from \$32 to \$38 a month.

University Health Service.—A health service is maintained by the University in conjunction with the Associated Students. Ten per cent of the fees collected by the Student Association, for its special activities, is assigned to the health fund, for the maintenance of an infirmary, containing medical offices for both men and women, nurses' offices and quarters, and 40 beds. The University provides the building, with equipment, a corps of two physicians and two nurses. Medical advice and office treatment are available at all times.

If a student is taken ill and is unable to call at the medical office, he should notify the infirmary clerk and the public health nurse will call upon the patient. The disposition of the case is determined on report of this visit. If the patient is a contagious suspect, or if he is in unsatisfactory quarters, he is taken to the infirmary and cared for free of cost, except for board. If

serious disease develops he is transferred to one of the Seattle hospitals of his choice, and further responsibility of the University health service ceases. In the event of scarlet fever, or smallpox, the patient is sent to Firlands Sanitarium and cared for by the city. A local physician may be called in at any time at the patient's expense.

When absent from classes on account of sickness the student is not readmitted until he secures a card from the health service office. Record is thus kept of all illness and used as a guide for healthful supervision of the student. (See Rule 22, page 61.)

Student Help.—A considerable number of students who have found it necessary to support themselves, in part or wholly, while at the University, have been enabled to do so by securing occupations of various sorts. There is an employment bureau for men conducted by the Y. M. C. A. to secure work for men who have to make their own expenses, and the dean of men assists in placement. The dean of women renders a similar service for women.

It is necessary, however, to advise caution in entering the University without funds. The University cannot be responsible for finding work for students. During periods of business depression it is especially difficult to secure part time work. It is not advisable for anyone to register unless he has in hand sufficient funds to maintain him for a quarter. This requires a minimum of \$200. Students who expect to earn a portion of their support should not register for a full schedule of studies.

ACADEMIC AND VOCATIONAL GUIDANCE

Dean of Men.—The dean of men is held responsible for the welfare and discipline of the men students of the University. He has supervisory charge of Lander and Terry halls, the men's dormitories; and supplies lists of approved boarding and lodging places for men.

Advice will be given concerning the courses of study and vocational fields. The dean is always ready to aid students in any of their individual or group problems.

Dean of Women.—The dean of women is always ready to help or advise any woman student who may need assistance. She supplies lists of approved boarding and lodging places, corresponds with parents or guardians who desire to make inquiry concerning their daughters or wards, give advice regarding courses of study, and offer vocational information of a general nature. She acts as counselor to the officers of organizations for women and supervises all student houses of residence.

Vocational Secretary.—The office of vocational secretary assumes the responsibility of all placement work. It is desirable that every student have a conference with the vocational secretary sometime before graduation. The office is also available to undergraduates for the purpose of advisement. The vocational secretary is also the executive secretary of the alumni association of the University. A great mutual service may be rendered by reporting to this office any positions open that would be of interest to University graduates.

DEGREES

It is not the policy of the University to grant honorary degrees.

Rule 9. The work of the senior year (a minimum of 36 credits earned in three quarters) must be done in residence. [H.B.—18].

Rule 10. Each senior, shall, upon registration, file with the registrar a written application for his degree. Each application shall be checked by the Committee on

Graduation at least six months before the date at which the student expects to be graduated and notice shall be sent to the student by the registrar of the acceptance or rejection of his application. The accepted list shall be submitted at the last regular meeting of the faculty for the quarter in which the checking is done and, if approved by the faculty, with or without modification, shall constitute the list of candidates to be recommended for graduation upon the completion of the work requisite for their respective degrees. No change shall be made in this list unless ordered by a two-thirds vote of the members of the faculty present. [H.B.—37].

Rule 11. All students shall have the option of being held to the entrance and graduation requirements of the catalogue under which they enter, or those of the catalogue under which they expect to graduate. All responsibility for fulfilling the requirements for graduation from the various schools and colleges of the University shall be thrown upon the student concerned. [H.B.—38].

Rule 12. The degrees of A.B. and A.M., B.S. and M.S., or two different bachelor's degrees, may be granted at the same time in all cases in which a minimum of fifteen quarters shall have been occupied in the work for the two degrees. [H.B.—39].

Rule 13. In determining the fitness of a candidate for a degree, his attitude towards his financial obligations shall be taken into consideration. [H.B.—40].

Rule 14. Theses shall be typewritten on sheets of ledgerweight paper eight and one half by eleven inches in size, and shall be bound in cloth, with the subject, the name of the author and the date of the presentation on the front cover, and the name and date on the back in gilt letters. A uniform and suitable margin shall be left on the typewritten pages. [H.B.—41].

Degrees with Honors.—A degree with honors may be conferred upon a student who, upon recommendation of the honors committee and upon vote of the faculty is declared worthy of unusual distinction. Early in May each head of a department brings to the attention of the committee on honors such seniors majoring in his department as he thinks may be eligible for honors. A student is not allowed to take honors in more than one subject.

NORMAL DIPLOMAS

The University Normal Diplomas.—The University is authorized by law to issue teachers' diplomas, valid in all public high schools of the state. Candidates for these diplomas should register in the department of education as early as possible after the beginning of the sophomore year, and should consult with the department from time to time as to their work for the diploma and their preparation for teaching. Fuller information may be found in the department of education.

SENIOR SCHOLARS

Rule 15. (a) Students of the Colleges of Liberal Arts, Science, Fine Arts, Business Administration, and of the School of Education and Library School who are intellectually mature, who have 132 or more credits, and who have shown exceptional ability and capacity for independent work in some group of studies, shall be eligible for senior scholarships. Senior scholars shall be elected by the faculty, upon recommendation of the Committee on Honors, in the June preceding their senior year and their election shall be announced at Commencement and published in the catalogue. Ordinarily the number of scholars shall not exceed ten per cent of the class. Students of the above mentioned colleges, who, in the course of their senior year, show fitness therefor may be recommended and elected to senior scholarships.

(b) The work of the senior scholars shall be in not less than two nor more than four, allied subjects, which shall be so correlated as to bear upon some common field, the aim of the scholarships being breadth of knowledge and culture, rather than minute research. Except in the case of unfinished prescribed work or of courses in which the major professor deems attendance essential. Scholars are to be relieved from attendance at regular lectures and recitations and their work shall be done under the personal direction of the instructors with whom they are registered. The instructors in charge shall submit senior scholars at the end of the year to searching final examinations by which the grade of honor, if any, to be recommended to the Committee on Honors, shall be determined.

(c) Senior scholars shall be granted the library privileges accorded to members of the faculty and such monetary awards, if any, as may be available. [H.B.—42].

FELLOWSHIPS, SCHOLARSHIPS, AND AID

Loretta Denny Fellowships.—Three fellowships, of \$500 each, open to graduate students in any department of the University. Awarded by the

faculty on the basis of scholastic excellence and general merit, but only to those who need financial assistance. Applications for these fellowships should be made on blanks supplied by the dean of the Graduate School, and must be in his hands on or before March 15 preceding the academic year for which the fellowships are to be granted.

Arthur A. Denny Fellowships.—Six fellowships of \$500 each, open to graduate students in the departments of civil engineering, education, English, history, mining engineering, and pharmacy respectively. Awarded by the departments concerned on the basis of scholastic excellence and general merit, but only to those who need financial assistance. Applicants must be residents of the state of Washington. Applications for these fellowships should be made to the heads of the departments concerned on blanks supplied by the dean of the Graduate School, and must be in their hands on or before March 15 preceding the academic year for which the fellowships are to be granted.

National Research Fellowships.—Fellowships in physics and chemistry, offered by the National Research Council, are open to promising research students, who have already taken the doctor's degree or have equivalent qualifications. A successful candidate can pursue his research at any university or research institute chosen by him and which is acceptable to the appointing board. The salary will ordinarily be \$1800 for the first year. Fellows are eligible for successive reappointments ordinarily with increase in salary. For details address the dean of the Graduate School or the heads of the departments.

University Honorary Fellowships.—Three honorary fellowships have been established by the University. These, like the Loretta Denny fellowships, are open to students in any department of the University. They carry no stipend, and are designed to furnish recognition of exceptional scholastic excellence in the case of graduate students who are not eligible for the Loretta Denny or the Arthur A. Denny fellowships, either because they do not need financial assistance or because they are not giving their entire time to their work in the University.

Research Fellowships in Mining and Metallurgy.—The College of Mines of the University in cooperation with the United States Bureau of Mines offers five fellowships in mining and metallurgical research. The fellowships are open to graduates of universities and technical schools who are properly qualified to undertake research work. The value of each fellow is \$720 per year of twelve months. Fellowship holders are required to register as graduate students and to become candidates for the degree of master of science in mining engineering or metallurgy, unless an equivalent degree has previously been earned. Applications are due not later than May 15, and should be addressed to the Dean, College of Mines, University of Washington, Seattle, Washington.

Du Pont Fellowship.—Through its chemical department, Du Pont de Nemours & Co. offer an annual fellowship of \$500 in chemistry, known as the "Du Pont Fellowship," open to a senior student or graduate student in chemistry or chemical engineering.

The Bon Marche Industrial Fellowship.—The Bon Marche of Seattle offers an annual fellowship of \$600 to a graduate student in home economics for research work in textiles. The recipient of this fellowship is required to give one fourth of her time for eleven months to the testing of textiles for the Bon Marche.

The Mars Fellowship.—A research fellowship in astronomy, given by the late Dr. Percival Lowell, of the Lowell Observatory, Flagstaff, Arizona, carrying a stipend of \$600, may be awarded annually.

Columbia University Fellowship.—Columbia University offers each year a fellowship of \$250, open to students in mining, engineering, and chemistry.

University Teaching Fellowships.—The University each year provides a number of teaching fellowships in various departments. The graduate student receiving such a fellowship divides his time equally between his studies and assistance in the teaching work of the department in which he is enrolled. These fellowships range from \$540 to \$720.

Graduate Scholarships.—A number of graduate scholarships are open to students who perform service as laboratory assistants, assistants in charge of quiz sections, or readers. The remuneration is proportioned to the service, and ranges from \$180 to \$360.

Rosenberg Scholarship.—A scholarship of \$200, known as the "Samuel Rosenberg Scholarship, endowed in loving memory by Ella S. Rosenberg, his wife," is open to graduate students in French. In making this award, account will be taken of the scholarship, personality and needs of the candidates.

Isabella Austin Scholarship.—The Isabella Austin scholarship of \$100 for freshman women is awarded annually at the end of the fall quarter to a young woman of promise on the basis of scholarship and financial need.

Washington Alumnae Scholarship.—The Washington Alumnae offer an annual scholarship of \$100 to be awarded to a woman member of the Junior Class on the basis of scholarship, activity in student affairs, personal character and wholesome influence in university life.

Imperial Order of Daughters of British Empire Scholarship.—The Vimy Ridge Chapter of the Imperial Order of the Daughters of the British Empire offers two annual prizes of \$50 each for essays on some phase of history, politics, philosophy or sociology making distinctly for the maintenance and development of good relations between Great Britain and the United States. One of these prizes is open to students in residence during the regular academic year and is awarded at Commencement. The other is open to students in residence during the summer quarter and is awarded at the end of that quarter.

The Gamma Phi Beta Scholarship.—The Seattle Alumnae of Gamma Phi Beta offer an annual scholarship of \$100 to that woman among the English major students who most nearly fulfills the following conditions: partial or complete financial self-dependence, high scholarship, strength of personality, wholesomeness of influence and promise.

The Frederick and Nelson Scholarships.—Frederick and Nelson of Seattle offers two scholarships, one to a boy and one to a girl, each of which carries \$250 a year for the freshman and sophomore years. These scholarships are awarded on the basis of scholarship, personality, and business acumen.

The Beta Gamma Sigma Scholarship.—Beta Gamma Sigma offers a scholarship of \$75 in the College of Business Administration, to be awarded to the self-supporting student with the highest grades at the end of the fifth quarter.

The A. F. Venino Scholarship.—Professor A. F. Venino offers an annual scholarship to the candidate showing the greatest proficiency and prom-

ise in piano playing. This scholarship carries free tuition for one weekly lesson throughout the autumn, winter and spring quarters. All candidates must submit their application in writing to Dean Glen, before September 1. The competitive examination preliminary to the award is held in room 110, Meany hall, at 2 p. m. of the Saturday before registration day.

Chemistry Scholarship.—An anonymous donor offers a scholarship of \$100 annually to the student doing the best work in chemistry.

PRIZES

The Judge Alfred Battle Prize in Public Speaking and Debate.—Judge Alfred Battle offers an annual cash prize of \$75 to the Washington debating team chosen to meet representative debaters from the University of Oregon.

The Seattle Bar Association Prize.—Each alternate year, beginning with the spring of 1908, the Seattle Bar Association gives the sum of \$50 to defray the expenses of a debate between the representatives of the law schools of Oregon and Washington.

The Judge Kenneth Mackintosh Prize in Debate.—Judge Kenneth Mackintosh offers an annual prize of \$75 to the University of Washington debating team, consisting of two men, who compete with Leland Stanford Junior University in debate.

The E. F. Blaine Prize in Oratory.—Mr. E. F. Blaine offers an annual cash prize of \$100 to the winner in an intercollegiate oratorical contest of the universities of the northwest.

Fraternal Order of Eagles Prize.—Seattle Aerie No. 1 of the Fraternal Order of Eagles offers an annual prize of \$100 for the best essay or oration by a student of the University of Washington. The subject for this year is "Liberty".

Philo Sherman Bennett Prize.—The Philo Sherman Bennett prize of \$24 annually is "for the best essay discussing the principles of free government."

The Jaggard Prize.—In memory of the Hon. Edwin A. Jaggard, late justice of the supreme court of Minnesota, Miss Anna Wright Jaggard offers an annual cash prize of \$50 for the best essay on a topic connected with courses in history of law or jurisprudence.

The Burke China Club Prize.—The Burke China Club Prize of \$25 is awarded annually for the best essay on some subject related to the Chinese Literature, History or Language. Competitors are restricted to those who have had at least one term's work in Chinese Literature, History or Language.

The Sigma Delta Chi Prize.—The Sigma Delta Chi fraternity offers a prize of \$100 to be awarded to the student who writes the best ten editorials published in *The University of Washington Daily* during the current year.

The Charles H. Bebb Prize in Architecture.—Mr. Charles H. Bebb offers an annual cash prize of \$100 for the best design in some problem of architecture.

The Kellogg Prize in Architecture.—The William W. Kellogg Prize of \$50 is awarded annually for competitive work in architecture and design and is open to juniors and seniors.

The Washington Brick and Lime Company Prize.—The Washington Brick and Lime Company of Spokane offers a prize of \$50 in the department

of architecture to the sophomore, junior or senior student who submits the best design in terra cotta treatment.

The Judge Thomas Burke Prizes in French.—Judge Thomas Burke offers two cash prizes, one of \$15 and one of \$25, for general excellence in French.

The Frank Buty Prize.—The Frank Buty Prize of \$20 is offered annually for the best essay on some subject related to the Italian Language and Literature.

The Silvio Risegari Prize.—The Silvio Risegari Prize of \$50 is offered annually to the student in the College of Fine Arts who, at the end of the freshman year, shall have given evidence of superior scholarship in Italian.

The Italian Commercial Club Prize.—The Italian Commercial Club of Seattle offers a first prize of \$75 and a second prize of \$50 to the two students in the University who attain distinction in second-year Italian.

The A. Merlino Prize.—The A. Merlino Prize of \$25 is offered annually to the student in the College of Science who writes the best essay on "An Italian Scientific Advancement During the Year."

Cattenari Brothers' Prize.—Cattenari Brothers offer an annual prize of \$25 to the student in first- or second-year Italian who has made the greatest progress during the year.

The N. Paoella Medal.—Mr. N. Paoella, of Seattle, offers a gold medal each year, beginning with 1913, for a period of ten years, to the student doing the best work in Italian.

Military Science Prize.—The members of the Non-commissioned Officers Training School have established a fund of \$400, the income of which shall be utilized as a prize to be awarded to the student completing his junior year with the highest honors in military science.

STUDENT LOAN FUNDS

Several loan funds are available to assist students, both men and women, through financial emergencies. See the dean of men or the dean of women as the case may be for full information.

ASSOCIATIONS AND CLUBS

Alumni Association.—Every graduate of the University of Washington is a member of the Alumni Association. The records are kept by the permanent executive secretary, Mr. J. G. Fletcher, who is also the vocational secretary of the University. The control of the Alumni Association is determined by the alumni council which meets annually and consists of a representative from each local organization. It lays down the policies and these are carried out by the executive committee. The executive committee consists of five members elected by the council, one representative respectively of the Board of Regents, the faculty, and the associated students and the officers of the association who are elected annually. The annual dues are \$3. All alumni who pay their dues also receive the *Alumnus*, the official publication.

Associated Students.—The Associated Students of the University of Washington (A.S.U.W.) is the central organization which conducts the activities of the student body. Membership is required of all regularly enrolled students and the annual fee is \$10. (\$1 for summer term.)

This fee shall give to each student a qualification for membership in this corporation, and shall give to each member free subscription to the University of Washington Daily and free or reduced admission to such football, basketball, baseball games, tennis, track and wrestling meets, crew regattas, debates, oratorical contests, musical concerts as may be designated by the Board of Control.

The management of the Associated Students is vested in an annually elected Board of Control, composed of fifteen members including nine students, three faculty and three alumni. The Board meets bi-weekly and has all the usual powers granted the directorate of any corporation. The Board employs a graduate manager as its executive agent. He is assisted by student managers and in 1921-1922 the business transacted amounted to \$165,000, besides the stadium. The office of the graduate manager is in room 109 Commerce hall.

The Board also employs a manager of the A.S.U.W. bookstore and in 1921 the sales amounted to \$160,000.

Christian Associations.—The Young Men's Christian Association is open to all men students and members of the faculty. The Association distributes the "W" book or student hand-book to men students. It is a service organization and will assist all the men of the University in finding homes, part-time employment, church affiliation and all other service needs, if desired.

The proposed new building will be located at the entrance to the campus on east forty-second street.

The Young Women's Christian Association on the campus has a membership of 800 women and maintains an active organization with headquarters at 210 Denny hall.

The purpose of the organization is to create and promote a spirit of Christian friendliness among the women students; to afford opportunities for the development of Christian leadership through cabinet and committee work; and to offer channels for self-expression through various forms of service work, both on and off the campus.

A full time general secretary is employed and her services are at the disposal of every University woman.

Department Clubs.—The following clubs are connected with the work of different University departments: American Chemical Society, American Institute of Electrical Engineers, American Society of Mechanical Engineers, Business Administration Council, Chemical Club, Classical Club, Deutscher Verein, Education Club, English Club, Engineers Council, Fisheries Club, French Club, Forestry Club, Graduate Club, Home Economics Club, Law Association, Maritime Commerce Club, Mathematical Journal and Research, Mines Society, Officers Club, Pharmacy Club, Philological Club, Political Science Club, Physical Education Club, Pre-Medic Club, Scandinavian Club, Spanish Club, Women's Athletic Association, Zoology Club.

Religious and Social: Canadian Co-ed Club, Chinese Club, Christian Science Society, Cosmopolitan Club, Daughters of the American Revolution, Filipino Club, Girls Rifle Club, Japanese Club, Kla-How-Yah, Marilla Hutchins Club, Mountaineers' Club, Newman Club, Menorah Society, Patrons' Association, Service Club of Washington, Thalian Dramatic Association, Tillicums, Town Girls Club, Y.M.C.A., Varsity Boat Club, Women's Ex-Service Club, Women's League, Y.W.C.A.

Debating Societies.—There are four debating and literary societies in the University: Stevens, Badger, Athena and Sacajawea. The first two are for men, the last two for women. Membership in the clubs is limited in order that frequent practice may be afforded.

The Pacific Coast Triangular Debating League, consisting of the Universities of Washington, Oregon, and Stanford, holds an annual triangular debate. Each institution has two teams, representing the affirmative and negative of the question under discussion.

The men of the University also have dual debate leagues with Whitman College and British Columbia University.

The women of the University have similar dual leagues with the University of Oregon and Whitman College.

Musical Organizations.—The musical organizations consist of the University Choral Society, Men's Glee Club, Women's Ensemble, Orchestra and Band.

Philological Association.—The Philological Association was organized to encourage scientific investigation in languages and literature. Membership is open to all members of the University who are interested in philology.

Honor Societies.—The following honor societies have been established at the University: Alpha Kappa Psi—Commerce, Association University Players—Dramatics, Beta Gamma Sigma—B.A., Big "W" Club, Calva et Ossa—Pharmacy, Delta Phi—Debate (Women), Eta Sigma Phi—Home Economics (Local), Fir Tree—(Senior Men), Hammer and Coffin—Comic Publication, Iota Sigma—Chemistry (Women), Iota Tau Alpha—Dramatics (Men), Kappa Psi—Pharmacy (Men), Knights of the Hook, Lambda Rho—Art (Women), Mu Phi Epsilon—Music (Women), Oval Club—(Junior and senior men) Pan Xenia—Foreign Trade, Phi Alpha Delta—Law, Phi Beta Kappa—Scholarship, Phi Delta Delta—Law (Women), Phi Delta Kappa—Education (Men), Phi Delta Phi—Law (Men), Phi Lambda Upsilon—Chemistry (Men), Phi Mu Alpha—Music (Men), Phi Sigma Chi—Commerce (omen), Pi Lambda Theta—Education (Women), Pi Mu Chi—Pre-Medic, Red Domino—Dramatics (Women), Scabbard and Blade—Military, Sigma Delta Chi—Journalism (Men), Sigma Epsilon—Pre-Medic (Women), Sigma Upsilon—Literary Fraternity (Men), Sigma Xi—Scientific, Tau Beta Pi—Engineering, Tau Kappa Alpha—Debate (Men), Theta Sigma Phi—Journalism (Women), Tolo Club—(Junior and Senior Women), Atellier—Architecture, Xi Sigma Pi—Forestry (Men).

Washington University State Historical Society.—The Washington University State Historical Society has for its purpose the preserving of the historical documents and records of the Northwest and of the state of Washington, and to preserve or publish the results of all investigations.

GENERAL SCHOLASTIC REGULATIONS

STUDIES

At the beginning of each quarter, the student arranges his schedule of studies with the advice and assistance of his class officer. A regular course consists of fifteen or sixteen hours of recitations per week.

Rule 16. No person may regularly attend any course in which he has not been registered as a student or enrolled as an auditor. [H.B.—28]

All women students are required to take three hours of gymnasium work per week throughout the first and second years, ten credits in physical training being required of women for a degree.

A course of two years in military training is required. All able-bodied male students except those from foreign countries, not intending to become naturalized, must take the course which by regulation of the University is required during the first and second years.

Neither the requirement of physical education for women, nor that of military science for men applies to any student entering as a junior or senior, providing the student has fulfilled the requirements in these subjects laid down by the institution from which he comes. The deans, together with the physical director, or commandant, as the case may be, have authority to allow a student to substitute the proper corresponding amount of scholastic work for gymnasium or military science when it seems advisable. Substitutions to be valid must be signed by the dean concerned and the physical director or commandant, and must be filed in the registrar's office.

Rule 17. It shall be the duty of every student of whom military science or physical training is required to see that he is properly registered for the course, and to report for instruction. The fact that a student was not formally registered does not excuse him from attending. Students who are required to take military science or physical training, but fail to report for work, will, with the approval of the president, be excluded from all classes. The responsibility of complying with the regulations regarding military science and physical training rests entirely with the student. [H. B.—44]

Rule 18 (a) Men who are to be at the University for only one year, preparing for entrance into some other institution, e. g., a medical school, may be permitted to postpone the course, with the understanding that if they register in the University in succeeding years, they shall be required to take the full course.

(b) Men who, because of physical condition, age, civil status, or pecuniary circumstances necessitating outside work, should not, in the judgment of their dean, be required to take the work in military science, may be permitted by the commandant of cadets to substitute physical training or scholastic work therefor. [H. B.—45]

Rule 19. Each request for permission to postpone, or substitute for the regular course in the department of military science and tactics, shall be acted upon by the commandant of cadets, on the recommendation of the dean concerned. Each grant of permission must be filed in the registrar's office. [H. B.—46].

Rule 20. Only short course students in mining and forestry shall be exempt from the requirements in military science and physical training. [H. B.—47]

Rule 21. The dean concerned and the physical director together may grant permission to a student to postpone, or substitute scholastic work for the required work in physical training. The grant of permission must be filed in the registrar's office. [H. B.—48]

REGULATIONS FOR WITHDRAWAL

Withdrawal is the voluntary severance by a student of his connection with a course or with the University and is indicated on the registrar's books by a "W". During the first four weeks of a quarter, a student may withdraw from a course and be given a "W" with the written consent of his dean and his instructor. If he desires to withdraw at a later period, he may do so, but if his work has not been satisfactory he shall be given an "E" instead of a "W"; provided, however, that, if in either case, a withdrawal will reduce the student's hours below 12, it must be approved by his dean. A student who drops a course without withdrawing shall be given an "E" in the course.

LEAVE OF ABSENCE

A leave of absence from the University, involving excuses from classes, may be granted by the dean concerned except as hereinafter provided.

Rule 22. (a) Leaves of absence on account of sickness shall be granted by the University health service, and shall be taken personally to the instructors concerned. Students absent on account of sickness shall not be re-admitted to classes without this written excuse. The University health service shall file a copy of these leaves of absence with the dean of men or the dean of women respectively.

(b) Leaves of absence from one class period with the exception of cases included in rule 22 (a) may be granted by instructors.

(c) Leave of absence from the University for recognized student activities (athletics, music, debate, etc.) shall be passed on by the dean of men and the dean of women respectively. [H. B.—30]

SCHOLARSHIP STANDING

Rule 23. (a) Any student who, at the end of the fifth week of any quarter, is reported as doing work below passing grade in two or more of his subjects, aggregating more than one-third of his registered hours, shall be warned and placed on probation for the remainder of said quarter.

(b) Any student who, at the end of any quarter, fails in two or more subjects, aggregating more than one-third of his registered hours, shall be dropped. Reinstatement in the following quarter shall be allowed *only on permission* of the Board of Deans. If such student is reinstated he shall be on probation and shall register under conditions prescribed by his dean, who shall be his registering officer.

(c) To be eligible for reregistration during the academic year 1922-1923 or any succeeding academic year, a student must have made grades of A, B, or C, in two-thirds of his hours for the last academic year; provided, that a student eliminated by this rule shall be eligible for reregistration after the interval of one succeeding autumn, winter, or spring quarter. [H.B.—29]

NOTE:—In the administration of these rules military science and physical education shall be on the same basis as so called "academic subjects."

EXAMINATIONS

Rule 24. Examinations shall be held at the close of each quarter in all courses. Instructors desiring to excuse any or all students from examinations in any course shall obtain the approval of the head of the department and the dean of the college concerned. [H.B.—31]

Rule 25. Examinations shall be held in each course at the last scheduled class-hour of the quarter, and also at the next preceeding class-hour, if desired; except in laboratory courses, when the last laboratory period may be used as a substitute or in addition. In case an instructor wishes to give an examination at other than the scheduled time, he must get the permission of the Board of Deans. [H.B.—32].

In certain courses running through two or more quarters the examination on the work of the first quarter is merely qualifying, final credit not being given until the examination for the entire course has been passed.

Under "Departments of Instruction" such courses are indicated by course-numbers connected by hyphens.

Rule 26. A student desiring to be absent from his scheduled examinations must before leaving college, present to the instructors concerned permission from his dean to be absent. [H.B.—33]

Rule 27. A student, absent from a scheduled examination either by permission of his dean, or through sickness, or other unavoidable cause, may take another examination under the following conditions:

(a) He shall satisfy his dean as to his reasons for absence;
(b) He shall pay a fee of \$1 at the comptroller's office and get a receipt for same;

(c) He shall present this receipt to the registrar, who shall issue a card entitling student to examinations;

(d) He shall present this card to the instructors concerned and take the delayed examination at a time approved by his dean and instructor. No instructor need give more than one special examination in any one subject in any quarter. [H.B.—34]

Rule 28. Reports of all examinations of seniors must be in the registrar's office by 6 p.m. of the Monday preceeding commencement day. Examination for all candidates for graduation at the end of the autumn, winter, and summer quarters shall conform to the regular examination schedule. [H.B.—72].

CREDITS

Credits are the units in which quantity of work at the University of Washington is measured. Thus, a quarter course in which there are five weekly recitations is a five-credit course, and 190 credits are required for graduation from the College of Liberal Arts and College of Science.

SYSTEM OF GRADES

1. The following is the system of grades:*

A	-----	Honor
B	-----	
C	-----	Intermediate
D	-----	
E	-----	Failed
I	-----	Incomplete
W	-----	Withdrawn

*These grades correspond approximately to the old marking scheme as follows: A, 100-96; B, 95-86; C, 85-76; D, 75-70; E, 70-0.

An Incomplete is given only in case the student has been in attendance and done satisfactory work to a time within two weeks of the close of the quarter. An Incomplete in a course may be changed to a passing grade during the next quarter in which the student is in residence, provided the work of the course shall have been finished in a satisfactory manner; otherwise it becomes an "E". In special cases removal of an Incomplete may be deferred by the dean of the proper college. Notice of such deferrment must be filed with the registrar before the Incomplete has been changed to an "E".

2. Candidates for the bachelor's degrees in the colleges of Liberal Arts, Science, Business Administration, Fine Arts, the Library School, the School of Education, and the School of Journalism, must receive grades of A, B, or C in three-fourths of the credits required for their respective degree. *& Forestry*

3. The grades of "passed" or "failed" are used in reporting the work of graduate students.

Rule 29. Except in cases of clerical error, no instructor shall be allowed to change a grade which has once been turned in to the registrar. [H.B.—75]

TUTORING RATES

Rule 30. The maximum rates to be charged by official tutors shall be as follows:

No. in Class	Fee per hour
1	\$2.00 per student
2	1.20 " "
3	1.00 " "
4 .....	.90 " "
5 .....	.80 " "
6 .....	.70 " "
7-15	5.00 " Class

No class to be larger than 15.

No reduction to be made for absences..

Fees to be payable by the month, in advance. [H.B.—68].

LIBRARY RULES

Rule 31. Following shall be regulations governing the use of the library.

(a) Any student may borrow books from the library for a period of two weeks; provided, however, that any book may be called in at any time.

(b) A loan may be renewed on or before the day the loan expires if there is no other demand for the book.

(c) A fine of 8 cents per day is imposed for each day a book is retained after it is due; provided, however, that if a book is retained five days or more after it is due the borrower may be assessed double the accumulated fine. The date a book is due is stamped inside the back cover.

(d) Any reserved book may be borrowed for any period when the library is to be closed, but failure to return the same within ten minutes after the library next opens will subject the borrower to a fine of ten cents for the first hour or any part of that hour and five cents for each additional hour or fraction thereof that the book is retained. All fines are due when the book is returned.

(e) Books must not be taken from the library without being charged at the loan desk.

(f) Failure to comply with (c), (d) or (e) shall be considered "a delinquency in a financial obligation". [H.B.—71].

BOARD OF DISCIPLINE

Rule 32. All charges of infraction of the rules and regulations of the University shall be referred to the board of discipline, consisting of the dean of faculties, the dean of women and the dean of men, for investigation and final adjudication; provided, however, that charges of scholastic dishonesty involving women shall first be investigated by the women student members of the board of control and their findings reported to said board of discipline, and that charges of scholastic dishonesty involving men shall first be investigated by the male student members of the board of control and their findings reported to said board of discipline. The student investigating committees mentioned in the latter part of this rule shall be known as the discipline committees of the board of control.

Rule 33. The comptroller and the registrar are instructed not to record the credits of a student who, in their joint judgment, has been delinquent in meeting his financial obligations, a student whose credits have thus been withheld, is in the same situation as one who has failed. [H.B.—16].

STUDENT PUBLICATIONS

Rule 34. Only those publications may make use of the good will of the University in soliciting advertising who shall be so designated by the committee on publications. [H.B.—63].

Rule 35. All requests for permission to issue student publications shall be referred to the committee on publications, with power to act. [H.B.—64].

Rule 36. The editor of the *University of Washington Daily* and the editors of all other student publications shall be held responsible for all matter that appears in their respective publications. Correspondents of all other publications shall be held similarly responsible for all items contributed by them to their respective publications [H.B.—65].

Rule 37. No special editions of *The Daily*, by special sets of editors, shall be allowed. [H.B.—66].

STUDENT ACTIVITIES

Rule 38. Student activities shall include:

- (a) Any sport or pursuit for which an A.S.U.W. emblem is granted.
- (b) Any sport or pursuit organized under an A.S.U.W. coach or a member of the faculty in preparation for (a).
- (c) Any semi-scholastic pursuit for which credit is given.
- (d) Any all-university public performance managed by students.

Rule 39. In order to be eligible to represent the University in any *intercollegiate* activity, a student must:

(a) Have presented for entrance 15 Carnegie units, have been in residence for at least three quarters and have completed satisfactorily at last 36 hours of scholastic work; provided, that the requirement of three quarters in residence shall not apply to activities open to freshmen under Pacific Coast Conference Rules.

(b) Have successfully carried two-thirds of the normal work of the curriculum in which enrolled during the previous quarter and also be carrying satisfactorily two-thirds of the normal work of the curriculum in which enrolled during the quarter in which it is desired to participate. Previous quarter shall be considered as the last quarter preceding such participation in which the student was carrying at least two-thirds normal work of the curriculum in which enrolled. For the purpose of this rule, a student shall be considered to have been in residence for a quarter if he attended the University for two months of the quarter.

(c) Keep off probation.

(d) If the contest requires his absence from classes, secure a written leave of absence, as provided in Rule 22 (c);

(e) Further, in the case of athletic activities, pass any physical tests set by the department of physical education and practice at least a month before a meet or game.

(f) In group (e) under the definition of student activities, a student shall satisfy the department responsible for the work, before he is allowed to represent the University. [H.B.—51].

(g) In group (d) under the definition of student activities, a student shall satisfy the university committee on student welfare, before he is allowed to represent the University. [H.B.—51].

Rule 40. An "Incomplete" shall have the same value as an "E" in determining the eligibility of a student to represent the University in student activities. [H.B.—52].

Rule 41. Any member of a squad found eligible one week before the first conference contest in a given sport shall be declared eligible, scholastically, for the remainder of the season, unless scholarship reports would (see Scholarship Standing page 38) drop him from the roll of the University; provided, that in cases of moral delinquency, no previous notice shall be required to disqualify a student from representing the University in any intercollegiate student activity. [H.B.—53].

Rule 42. No student shall be eligible to represent the University, who has total failures earned on his previous record exceeding one-fifth of his total hours earned. [H.B.—54].

NOTE—If a student has been two quarters in residence, has 20 quarter credits and has been for at least one quarter in Allied Service, he shall be considered eligible for the first quarter after his return to college, to participate in intercollegiate athletics.

Rule 43. No person not an officer or student of the University shall be allowed to represent it in any student activity. [H.B.—55].

Rule 44. No student shall take part in more than one dramatic performance during a quarter. This rule does not apply to dramatic performances which are entirely a part of a regular course for credit. [H.B.—56].

Rule 45. The qualifications of students for debate, oratory and important parts of musical and dramatic entertainments shall be passed upon at least four weeks before the date of the contest or entertainment; except that, on the recommendation of the instructor in charge, less time may be permitted to intervene between the

selection of participants and the date of the contest or entertainment. [H.B.—57].

Rule 46. The rules governing eligibility of participants in student activities shall apply to the editors-in-chief and business managers of *The Daily* and *The Tyee*, except that after these officers have been once approved, said rules shall not apply to their cases. [H.B.—58].

Rule 47. Students on probation are not allowed to take part in practice games in athletics with outside teams. [H.B.—59].

Rule 48. Athletics for women shall be limited to games and contests within the University. Such games and contests shall not be open to the public. [H.B.—60].

MISCELLANEOUS

Rule 49. Smoking shall not be allowed in the University recitation or laboratory buildings or on the steps thereof. [H.B.—67].

Rule 50. Push-ball contests, tie-ups, and all other forms of class conflicts are prohibited. Any forms of hazing, or of interference by any class or any members of any class with the personal dignity and liberty of any member of any class, are a breach of discipline and are prohibited. [H.B.—70].

Rule 51. (a) Student clubs or organizations connected with the work of a department or departments may have speakers to address them at the University; provided the speakers are vouched for by the head of the department concerned. They must also secure the permission of the superintendent of buildings to use the University grounds or buildings.

(b) Other student groups, clubs, or organizations wishing to have speakers to address them must have the speakers approved, and must secure the permission of the superintendent of buildings for the use of any of the University buildings or any part of the grounds of the University. [H.B.—69].

Rule 52. There shall be but two University formal social functions in any academic year, viz., the junior prom and the varsity ball; and these shall not be open to freshmen. [H.B.—49].

Rule 53. (a) During the first four weeks of the first quarter, no fraternity of sorority nor any organization or club whose membership is made up wholly of men or women shall give any social function at which members of the opposite sex are entertained.

(b) During the college year, social functions may be held on Fridays and Saturdays only. For the purpose of this rule, single holidays shall be considered integral parts of the college year.

(c) No social functions involving both sexes may be held within the two weeks preceding the quarter or year examinations.

(d) During the college year, picnics may be held only Saturdays. [H.B.—50].

FRATERNITIES AND SORORITIES

Rule 54. (a) No fraternity or sorority shall pledge any person for membership whose registration in the University is not complete. SEE REGISTRATION.

(b) No student having less than junior standing shall be initiated into a fraternity or sorority until he or she has earned 18 credits or provisional credits in two quarters, or 15 in one quarter, at this University. Credits or provisional credits for work taken to remove entrance conditions may not be counted.

(c) Any ex-service man entering the University with fifteen entrance units, at least ten academic credits, and a minimum of twelve military credits, shall be regarded as eligible for initiation into a fraternity.

(d) Any ex-service man who, in addition to having fifteen entrance units and a minimum of twelve military credits, shall have earned in the University a minimum of ten credits in one quarter, shall be eligible for initiation into a fraternity; provided always that if he is registered for less than fifteen hours, he must have passed in all his hours.

(e) Candidates for initiation into either fraternities or sororities shall secure from the registrar's office a certificate of eligibility.

(f) Special students desiring to be initiated into fraternities or sororities must also be approved by the student affair committee. Unclassified students and others having unremoved entrance conditions may also be referred by the registrar to the student affairs committee for approval. [H.B.—61].

Rule 55. The location of all fraternity and sorority houses must be approved by the president of the University. [H.B.—62].

COLLEGE OF LIBERAL ARTS

THE FACULTY

HENRY SUZZALLO, Ph.D. (Columbia), LL.D. (California),	PRESIDENT
JOHN THOMAS CONDON, LL.M. (Northwestern),	DEAN OF FACULTIES
DAVID THOMSON, B.A. (Toronto),	Professor of Latin; DEAN
FRED CARLTON AYER, Ph.D. (Chicago),	Professor of Education
ALLEN ROGERS BENHAM, Ph.D. (Yale),	Professor of English
FREDERICK ELMER BOLTON, Ph.D. (Clark),.....	
.....	Professor of Education; Dean of the School of Education
PIERRE JOSEPH FREIN, Ph.D. (Johns Hopkins),	Professor of Romanic Languages
JAMES EDWARD GOULD, A.M. (Harvard), ..	Professor of Maritime Commerce and Dean of Men
HERBERT HENRY GOWEN, D.D. (Whitman), ..	Professor of Oriental Languages and Literature
THOMAS KIDLER, Ph.D. (George Washington University),	Professor of Transportation
HOWARD THOMPSON LEWIS, M.A. (Wisconsin),	Professor of Business Administration
EDMOND STEPHEN MEANY, M.L. (Wisconsin),	Professor of History
STEPHEN IVAN MILLER, JR., A.B. (Stanford), LL.B. (Michigan),	
.....	Professor of Economics and Dean of College of Business Administration
ROBERT EDWARD MORITZ, Ph.D. (Nebraska), Ph.D. (Strassburg),	
.....	Professor of Mathematics
CAROLINE HAVEN ORBE,	Professor of Spanish
FREDERICK MORGAN PADELFORD, Ph.D. (Yale),	
.....	Professor of English and Dean of Graduate School
VERNON LOUIS PARRINGTON, A.B. (Harvard), A.M. (Emporia),	Professor of English
OLIVER HUNTINGTON RICHARDSON, Ph.D. (Heidelberg),	Professor of European History
EFFIE ISABEL RAITT, M.A. (Columbia),	Professor of Home Economics
WILLIAM SAYREY, Ph.D. (Harvard),	Professor of Philosophy
J. ALLEN SMITH, Ph.D. (Michigan),	Professor of Political Science
STEVENSON SMITH, Ph.D. (Pennsylvania),	Professor of Psychology
EDWIN JOHN VICKNER, Ph.D. (Minnesota),	Professor of Scandinavian Languages
HOWARD B. WOOLSTON, Ph.D. (Columbia),	Professor of Sociology
ERIC TEMPLE BELL, Ph.D. (Columbia),	Professor of Mathematics
EDWARD GODFREY COX, Ph.D. (Cornell),	Associate Professor of English
WILLIAM EDWARD COX, A.M. (Texas),	Associate Professor of Business Administration
VANDEVEER CUSTIS, Ph.D. (Harvard),	Associate Professor of Economics
ROBERT MAX GARRETT, Ph.D. (Munich),	Associate Professor of English
CHARLES GOGGIO, Ph.D. (Wisconsin),	Associate Professor of Romanic Languages
RODERICK DUNCAN MCKENZIE, Ph.D. (Chicago),	Associate Professor of Sociology
EDWARD McMAHON, A.M. (Wisconsin),	Associate Professor of American History
LOREN DOUGLAS MILLIMAN, A.B. (Michigan),	Associate Professor of English
WILLIAM DANIEL MORIARTY, Ph.D. (Michigan),	
.....	Associate Professor of Business Administration
OTTO PATZER, Ph.D. (Wisconsin),	Associate Professor of French
HOWARD HALL PRESTON, Ph.D. (Iowa),	Associate Professor of Business Administration
THOMAS KAY SIDET, Ph.D. (Chicago),	Associate Professor of Latin and Greek
HARRY EDWIN SMITH, Ph.D. (Cornell),	Associate Professor of Business Administration

GEORGE WALLACE UMPHREY, Ph.D. (Harvard),	..Associate Professor of Romanic Languages
ROY M. WINGER, Ph.D. (Johns Hopkins),	.....Associate Professor of Mathematics
SEERENO BURTON CLARK, Ph.D. (Harvard),	.....Assistant Professor of Latin and Greek
GRACE GOLDENA DENNY, A.M. (Columbia),	.....Assistant Professor of Home Economics
HARVEY BRUCE DENSMORE, A.B. (Oxford),	.....Assistant Professor of Greek
LOUIS PETER DEVRIES, Ph.D. (Wisconsin),	....Assistant Professor of Romanic Languages
CURT JOHN DUCASSE, Ph.D. (Harvard),	.....Assistant Professor of Philosophy
ERNEST OTTO ECKELMAN, Ph.D. (Heldelberg),	.....Assistant Professor of German
GEORGE IRVING GAVETT, B.S. (Michigan),	.....Assistant Professor of Mathematics
EDWIN RAY GUTHRIE, Ph.D. (Pennsylvania),	.....Assistant Professor of Psychology
JOSEPH BARLOW HARRISON, A.B. (Oxford),	.....Assistant Professor of English
RUDOLPH HERBERT ERNST, Ph.D. (Harvard),	.....Assistant Professor of English
CHARLES LOUIS HELMLINGE, A.M. (Washington),	..Assistant Professor of Romanic Languages
HARLAN CAMERON HINES, Ph.D. (Iowa),	.....Assistant Professor of Education
MARTHA KOEHN, A.M. (Ohio State),	.....Assistant Professor of Home Economics
JAKOB A. O. LARSON, A.M. (Oxford),	.....Assistant Professor of History
HENRY L. LUCAS, Ph.D. (Michigan),	.....Assistant Professor of History
THERESA SCHMID McMAHON, Ph.D. (Wisconsin),	.....Assistant Professor of Economics
LEWIS I. NEIKIRK, Ph.D. (Pennsylvania),	.....Assistant Professor of Mathematics
VIRGINIA C. PATTY,	.....Assistant Professor of Home Economics
MACY MILLMORD SHIVNER, Ph.D. (Harvard),	..Assistant Professor of Business Administration
LESLIE SPIER, Ph.D. (Columbia),	.....Assistant Professor of Anthropology
PAUL WASHINGTON TERRY, Ph.D. (Chicago),	.....Assistant Professor of Education
CURTIS TALMADGE WILLIAMS, Ph.D. (Clark),	.....Assistant Professor of Education
GERTRUDE BROWNING, M.A. (Columbia),	.....Associate in English
CLYDE MYRON CRAMLET, M.S. (Washington),	.....Associate in Mathematics
EBBA DAHLIN, A.B. (Washington),	.....Associate in History
ALICE ERNST, A.M. (Washington),	.....Associate in English
RAYMOND FORREST FARWELL, A.B. (California),	.....Associate in Business Administration
VICTOR JOHN FARRAR, A.M. (Wisconsin),	.....Associate in Historical Research
WINNIFRED S. HAGGETT, A.M. (Michigan),	.....Associate in English
RACHEL HAMILTON, B. Lit. (Whitman),	.....Associate in French
WILLIAM B. HENDERSON, L.L.M. (Georgetown),	.....Lecturer in Business Administration
ARTHUR R. JERRETT, B.S. (Washington),	.....Associate in Mathematics
PAMELIA JONES, M.A. (Iowa State Univ.)	.....Associate in English
SYLVIA FINLAY KERRIGAN, A.B. (Washington),	.....Associate in English
OLIVE McCABE, B.A. (Wellesley),	.....Associate in Sociology
JAMES M. McCONAHAY, L.L.B. (Northwestern),	.....Lecturer on Business Administration
VIVIAN MCGILL, A.B. (Washington),	.....Associate in Philosophy
HORACE D. MCGIRR, B.B.A. (Washington),	.....Associate in Business Administration
JEANNE MERBOLD, B.S. (Whitman),	.....Associate in French
HERMANUS MULLENBISTER, Ph.D. (Utrecht),	.....Associate in Mathematics
ALEXANDER C. ROBERTS, A.M. (Washington),	.....Associate in Education
JAMES P. ROBERTSON, C.P.A.	.....Lecturer in Accounting
ELLA M. SICKELS, A.M. (Washington),	.....Associate in English
MILDRED STREUBLE, A.M. (Washington),	.....Associate in English
BERTHA ALMER VICKNER, A.M. (Washington),	.....Associate in English
FRANK C. VAN DE WALKER, A.B. (Whitworth),	....Associate in Business Administration

ELIZABETH WRIGHT, A.B. (Mount Holyoke),	Associate in English
HARL D. WEST, A.M. (Adrian),	Associate in Mathematics
RALPH MASON BLAKE, Ph.D. (Harvard),	Instructor in Philosophy
GENO VINCENT MEDIOI DE SOLENNI, A.M. (Ohio State University),	Instructor in Romanic Languages
OSCAR ELDRIDGE DRAPER, M. Accts. (Vories),	Instructor in Business Administration
MARTHA ESTELLA DRESSLAR, M.S. (Columbia),	Instructor in Home Economics
JOHN GERALD DRISCOLL, LL.B. (Stanford Business College)	Instructor in Accounting
WILLIAM W. EDDY, A.M. (Harvard),	Instructor in History
HOMER EWART GREGORY, M.A. (Chicago),	Instructor in Business Administration
FRANK HARTMOND HAMACK, LL.B. (Georgetown),	Instructor in Business Administration
MILLETT HENSHAW, A.B. (Stanford),	Instructor in English
FRANK LAUBE, A.M. (Washington),	Instructor in Political Science
KARL ELIAS LEIB, B.A. (Stanford),	Instructor in Business Administration
RUTH M. LUSBY, A.M. (Columbia),	Instructor in Home Economics
WILLIAM RUSSELL,	Acting Instructor in Business Administration
LOYD L. SMALL, Ph.D. (Columbia),	Instructor in Mathematics
HENRY W. STAGER, Ph.D. (Calif.),	Instructor in Mathematics
VON VALJEAN TARBILL, M.B.A. (Harvard),	Instructor in Business Administration
JOSEPH M. TAYLOR, M.S. (Adrian),	Acting Instructor in Mathematics
WALTER BELL WHITTLESLEY, A.M. (Washington),	Instructor in French
WILLIAM R. WILSON, M.S. (Washington),	Instructor in Psychology
CONSTANCE BURNHAM, B.A. (Wellesley),	Assistant in English
HELEN HADLEY, B.A. (Smith),	Assistant in English
BETH McCausland, A.B. (Washington),	Assistant in English
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IRVING MACKAY GLEN, A.M. (Oregon),	Professor of Music and Dean of the College of Fine Arts
WILLIAM PIERCE GOBSUCH, A.B. (Knox),	Professor of Dramatic Art
DAVID CONNOLLY HALL, M.D. (Chicago), ..	University Health Officer and Professor of Hygiene
TREVOR KINCAID, A.M. (Washington),	Professor of Zoology
FREDERICK ARTHUR OSBORN, Ph.D. (Michigan),	Professor of Physics and Director of the Physics Laboratories
GEORGE BURTON RIGG, Ph.D. (Chicago),	Associate Professor of Botany
JAMES GEORGE ARBUTHNOT, B.S. (Kansas State College),	Director of Physical Education for Men
MARY EMMA GROSS, A.M. (Columbia),	Director of Physical Education for Women
FRED HARVEY HEATH, Ph.D. (Yale),	Assistant Professor of Chemistry
EDWIN JAMES SAUNDERS, A.M. (Harvard),	Assistant Professor of Geology

GENERAL STATEMENT

The College of Liberal Arts provides instruction in languages, education, economics and business administration, history, mathematics, philosophy, political science, psychology, and sociology. Together with the College of Science, it affords the student an opportunity to acquire a general education which shall serve as a sure foundation for real success in whatever profession he may choose. In the College of Liberal Arts the junior certificate plan is in operation, through which the work of the high school is closely articulated with that of the college. In order to obtain the degree of bachelor of arts, it is necessary for the student first to obtain his junior certificate. This represents the satisfactory completion of the work of the first two years in college, and leads, after two more years of work, to the degree. The details of the plan are set forth below.

It is highly desirable that students entering the College of Liberal Arts from another institution should obtain from the registrar, as soon as possible, a statement of what they must do in order to be granted the junior certificate and later, their bachelor's degree. Otherwise, by failing to fulfill the requirements, they will find their graduation postponed for a quarter or more, despite the fact that they may have earned credits sufficient in number to entitle them to the degree.

REQUIREMENTS FOR ADMISSION

Correspondence.—Credentials and all correspondence relating to admission to any college or school of the University should be addressed to the Registrar, University of Washington. Full information concerning admission, registration, and expenses may be found on pages 40, 48, 49.

Freshman Standing.—Freshman standing in the University is granted to any recommended graduate of a four-year accredited secondary school who meets the scholarship requirements outlined on page 41.

Grouping of Subjects in Preparation for Admission.—In addition to the three units of English and two units of mathematics required of all students for admission to the University, and the two units in a foreign language required for Liberal Arts, the student expecting to enter this college is advised to take as many as possible of the subjects specified on a succeeding page among "Requirements of the Lower Division," under group 2, "Subjects Required Either in High School or College." He should also note paragraph 4 on the same page entitled, "subjects Conditionally Required in College." A careful observance of these paragraphs will furnish a more complete preparation for college work, and will give the student correspondingly greater freedom of election in college.

Admission of Normal School Graduates to Advanced Standing.—Graduates of the normal schools of this state and of institutions of like standing elsewhere, who have completed at least two full years of normal school work after graduating from a four-year accredited high school, will be admitted to junior standing in the College of Liberal Arts. For graduation with the degree of bachelor of arts, these students are required to earn a minimum of 90 credits in the University, including the satisfaction of such of the requirements for the degree of bachelor of arts as have not been fairly covered by previous work. Claims for advanced university credit based on excess normal credit will be passed on by a committee consisting of the registrar, the dean of the college and the heads of the departments concerned.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS

To secure the degree of bachelor of arts (A.B.) the student must complete not less than a total of 190 credits and must observe the restrictions in regard to major and group requirements, scholarship requirements, and the requirements of the lower division and upper division.

I. MAJOR AND GROUP REQUIREMENTS

(a) From 36 to 60 credits must be in a single department known as the major department (except that with a major in English, 10 credits in English 1-2 may be counted in addition to 60 credits in other English courses).

(b) The number of credits taken in the major and any other single department combined must not exceed a total of 96 (except that when English is combined with the major department for the purpose of this total, credits in English 1-2 may be disregarded).

(c) Not less than 72 credits must be in the group in which the major department falls. For this purpose the departments are grouped as follows:

Group 1. Language and Literature.—Classical languages and literature, English, German, Oriental literature, Romanic languages and literature, Russian, Scandinavian.

Group 2. Philosophical.—Economics and business administration, education, history, mathematics, philosophy, political science, psychology, sociology.

The group requirement of 72 credits does not apply to majors in home economics.

II. SCHOLARSHIP REQUIREMENTS

in this univ.

Not less than three-fourths of the credits required for graduation must be earned with grades of A, B, or C.

III. REQUIREMENTS OF THE LOWER DIVISION

The work of the lower division comprises the studies of the freshman and sophomore years of the undergraduates curriculum and leads to the junior certificate. This work consists primarily of the elementary or introductory courses of the various departments.* Its aim is to supplement the work of the high school, to contribute to a broad general training in preparation for the advanced work of the upper division.

To receive the junior certificate the student must have earned not less than 90 college credits (together with required credits in military science or physical education), and must have completed, in high school and college

*NOTE.—The following (or their equivalents) constitute the courses of the Lower Division:

1. Modern Foreign Language: The first two years.
2. Ancient Language: Intermediate Latin; the first two years of college work; course in civilization and literature.
3. English: Composition; freshman and sophomore literature.
4. Mathematics and the Natural Sciences: The elementary courses (1 and 2) or equivalents.
5. History: The introductory courses in each line, e. g., medieval and modern (1-2), American (57-58), English (5 and 6), ancient (71-72-73).
6. Philosophy and Psychology: Elementary or introductory course in each line, e. g., general psychology, introduction to philosophy, ethics, logic.
7. Political and Social Science: Introducing courses in economics, government, sociology.

together, the amount of work specified in the subjects mentioned below. In addition thereto, he must have satisfied the qualitative test prescribed in English composition. The object of these requirements is to secure for the student a knowledge of a wide range of subjects, to distribute his knowledge over the fundamental fields. To this end the high school and college are viewed as essentially a unit.

The required subjects are grouped as follows:

1. *Subjects Required in High School.*

- (a) English, 3 years (3 units).

In addition to the completion of this amount of work in English, the student must show by a test examination *proficiency in English composition*, or he must take English composition in the University, as provided under requirement (n) below.

- (b) Elementary algebra, 1 year (1 unit).

- (c) Plane geometry, 1 year (1 unit).

Subjects (a), (b), and (c) are those required of all students for admission to the University.

- (d) A foreign language, 2 years (2 units or 20 credits). See note 4 and paragraph in Reading Knowledge of a foreign language, page 72.

2. *Subjects Required Either in High School or College.*

- (e) U. S. history and civics, 2 quarters (1 unit or 9 to 10 credits). See note 1.

- (f) History, 2 quarters (1 unit or 10 credits). See note 2.

- (g) Physics or chemistry, 2 quarters (1 unit or 10 credits).

- (h) Botany, or geology, or zoology, 2 quarters (1 unit or 10 credits).

3. *Subjects Required in College.*

- (i) Philosophy, 1 quarter (5 credits). 2, 3, 5

- (j) Psychology, 1 quarter (5 credits). 1, 2

- (k) Economics, political science, sociology, 2 quarters (10 credits).

- (l) Physical education or military science, regular freshman and sophomore requirements.

4. *Subjects Conditionally Required in College.*

- (m) Ancient life and literature, 2 quarters, (10 credits). See note 3.

- (n) English composition, 2 quarters, (10 credits). See note 5.

NOTES

1. Students who do not take United States history and civics in the high school must take History 57-58 in the University.

2. One year of history is required in addition to requirement (e). It may be satisfied in *any year* (1 unit or 9 or 10 credits) of history.

3. Two quarters' work in ancient life and literature is required of all students who have not taken, or do not plan to take, 3 or more years of ancient language. For such students courses are offered in the University on the civilization of the ancients and on the literature in translation.

4. Two years of one of the following foreign languages is required for admission to the College of Liberal Arts: Latin, Greek, French, Spanish, Scandinavian, Italian. (In special cases other languages may be accepted). If the requirement has not been met in high school, it must be made up in college. This work shall be taken without credit unless the student presents two units in another foreign language.

5. English composition is required for the junior certificate except in the case of those persons who show by examination proficiency in that subject. (See University calendar for dates of examination).

Schedule Limitations of the Lower Division.—As a rule students in the lower division must confine their elections to courses designed for such students, viz., courses numbered 1 to 99 in the catalogue. A student, however, who has had the proper prerequisite or who may be deemed in intellectual maturity sufficiently qualified, may, with the consent of the dean and the instructor concerned, register for an upper division course. (In a foreign language a student who has had the proper prerequisite may be enrolled in an upper division course merely with the consent of the class adviser.) Students who are granted this privilege should be careful not to allow it to interfere with the completion of all lower division requirements by the end of the

sophomore year; otherwise, an extra quarter of residence in that division may be necessary in order to secure the junior certificate and graduation may be correspondingly postponed.

No student in the lower division shall be registered for more than 16 credit hours per quarter (exclusive of military science and physical education) or for less than 12 credit hours per quarter except with the consent of the dean.

IV. REQUIREMENTS OF THE UPPER DIVISION

The upper division comprises the studies of the junior and senior years. It consists principally of the advanced work of the undergraduate curriculum, and is therefore differentiated, both in content and method, from that of the lower division.

To be enrolled in the upper division, the student must have completed all the requirements for the junior certificate. The minimum amount of work to be done in the upper division will vary from 90 to 72 hours of credit, according to the number of hours offered for the junior certificate. The student must earn not less than 72 hours of credit while enrolled in the upper division. At least 48 hours of the credit hours taken in the upper division must be in the upper division courses (Courses 100 to 199). Of the 180 academic credits required for graduation at least 60 must be taken in courses numbered 100 or higher and of these 60, eighteen (not counting teachers' courses) must be taken in the major department.

Schedule Limitations of the Upper Division.—No student in the upper division shall be registered for more than 16 or less than 12 credit hours per quarter, except with the consent of the dean. A maximum of 19 hours per quarter may be granted to students who have made an exceptional record in scholarship in the lower division and who maintain that record in the upper division.

V. READING KNOWLEDGE OF A FOREIGN LANGUAGE

Beginning with the year 1924 a reading knowledge of any one of the foreign languages taught in the University will be required for graduation from Liberal Arts. (This requirement will not apply to graduates from the Six-Year Arts and Law Curriculum.)

SCHEME OF ELECTIVES

For the purpose of election, outside the major department, the College of Liberal Arts, the College of Science, the School of Education, the College of Business Administration and the School of Journalism are treated as one.

The following courses given outside the College of Liberal Arts may be counted toward a bachelor of arts degree. Not more than 24 such credits altogether shall be counted toward this degree except that from the College of Fine Arts 36 credits may be counted.

College of Pharmacy.—Materia medica, therapeutics, toxicology. Total amount allowed, 12 credits.

College of Engineering.—Mechanical drawing, descriptive geometry, surveying, direct currents, alternating currents, engineering problems. Total amount allowed, 18 credits.

College of Mines.—General metallurgy.

College of Fine Arts.—A total number of 36 credits in the College of Fine Arts may be counted toward the bachelor of arts degree.

Be sure to specify what kind
of work shall be taken for A.B. degree
if student has taken more law
work than can count on A.B.

COLLEGE OF LIBERAL ARTS

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College of Forestry.—General forestry, characteristics of trees, forest economics, silviculture. The maximum number of hours elective from these subjects is 18.

School of Law.—Agency, constitutional law, contracts, general business law, equity, persons, property. From these subjects a total of 18 credits may be counted toward the bachelor of arts degree by a student majoring in the philosophical group; a total of nine credits may be so counted by a student majoring in any group.

SIX-YEAR ARTS AND LAW CURRICULUM

This combined course allows the student with a good record to obtain an A.B. and an LL.B. in six years. It is open only to those students who have maintained a uniformly good record for scholarship during the first three years of collegiate work. At the end of three years, after the student has earned 135 credits, plus the ten required credits in military science or physical education and including all of the required work, together with a major, he may for the fourth year register in the School of Law for the first year's work in law. He must, however, earn in the College of Liberal Arts additional credits sufficient to make the total credits amount to 154. Thirty-six credits in the first year law work may apply toward the A.B. degree, thus making 190 credits required for this degree.

The last two years of this combined course are devoted to completing the rest of the required work in the School of Law.

Students are strongly advised to complete their full 144 (plus 10) credits in the College of Liberal Arts by the end of the third year so that they can enter the law work clear in the fourth year.

Students from other institutions entering this University with advanced standing may take advantage of this combined course, provided they are registered in the College of Liberal Arts for at least one full year of work, and earn at least 45 credits in this University before entering the School of Law.

This privilege will not be extended to normal graduates attempting to graduate in two years, nor to undergraduates of other colleges who enter this University with the rank of senior.

COURSES

For description of courses, see Departments of Instruction, printed elsewhere in this catalogue. (See Index).

In Remington, see Pg 192
In Courses
Hold all at
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GENERAL NOTE.—Each student is to be held either for the admission and graduation requirements of the catalogue under which he enters, or for those of the catalogue under which he graduates.

COLLEGE OF SCIENCE

THE FACULTY

HENRY SUZZALLO, Ph.D. (Columbia), LL.D. (California).....	PRESIDENT
JOHN THOMAS CONDON, LL.M. (Northwestern).....	DEAN OF FACULTIES
HENRY LANDES, A.M. (Harvard).....	Professor of Geology; DEAN
THEODORE CHRISTIAN FRYE, Ph.D. (Chicago),.....	Professor of Botany
TREVOR KINCAID, A.M. (Washington).....	Professor of Zoology
FREDERICK ARTHUR OSBOEN, Ph.D. (Michigan).....	
.....	Professor of Physics and Director of the Physics Laboratories
ROBERT EDOUARD MORITZ, Ph.D. (Nebraska), Ph.N.D. (Strassburg),	Professor of Mathematics
DAVID CONNOLLY HALL, ScM, M.D. (Chicago),	Professor of Hygiene and University Health Officer
HENRY KREITZER BENSON, Ph.D. (Columbia).....	Professor of Industrial Chemistry
JOHN WEINZIERL, Dr.P.H. (Harvard).....	Professor of Bacteriology
EFFIE ISABEL RAITT, M.A. (Columbia).....	Professor of Home Economics
STEVENSON SMITH, Ph.D. (Pennsylvania),.....	Professor of Psychology
WILLIAM MAURICE DEHN, Ph.D. (Illinois).....	Professor of Organic Chemistry
GEORGE MCPHAIL SMITH, Ph.D. (Freiburg).....	Professor of Inorganic Chemistry
*CHARLES EDWIN WEAVER, Ph.D. (California).....	Professor of Geology
ERIO TEMPLE BELL, Ph.D., (Columbia)	Professor of Mathematics
ALLEN FULLER CARPENTER, Ph.D. (Chicago).....	Associate Professor of Mathematics
HENRY LOUIS BRAKEL, Ph.D. (Cornell).....	Associate Professor of Engineering Physics
GEORGE BURTON RIGG, Ph.D. (Chicago).....	Associate Professor of Botany
JOHN L. WORCESTER, M.D. (Med. School University of Alabama).....	
.....	Associate Professor of Anatomy
ROY MARTIN WINGER, Ph.D. (Johns Hopkins).....	Associate Professor of Mathematics
HERMAN VANCE TARTAR, Ph.D. (Chicago).....	Associate Professor of Chemistry
*EDWIN JAMES SAUNDERS, A.M. (Harvard).....	Assistant Professor of Geology
GEORGE IRVING GAVETT, B.S. (C.E.) (Michigan).....	Assistant Professor of Mathematics
ELI VICTOR SMITH, Ph.D. (Northwestern).....	Assistant Professor of Zoology
GRACE GOLDENA DENNY, M.A. (Columbia).....	Assistant Professor of Home Economics
JOHN WILLIAM HOTSON, Ph.D. (Harvard).....	Assistant Professor of Botany
LOUIS IRVING NEIKIRK, Ph.D. (Pennsylvania).....	Assistant Professor of Mathematics
SAMUEL HERBERT ANDERSON, Ph.D. (Illinois).....	Assistant Professor of Physics
EDWIN R. GUTHRIE, Ph.D. (Pennsylvania).....	Assistant Professor of Psychology
FRED H. HEATH, Ph.D. (Yale).....	Assistant Professor of Chemistry
THOMAS GORDON THOMPSON, Ph.D. (Washington).....	Assistant Professor of Chemistry
GEORGE EDWARD GOODSPEED, JR., B.S.M.E. (Massachusetts Institute of Technology)	
.....	Assistant Professor of Geology
ELISABETH AMERY, B.S. (Wisconsin).....	Assistant Professor of Home Economics
VIRGINIA CUNNINGHAM PATTY, (Diploma, Ecole Guerre, Paris).....	
.....	Assistant Professor of Home Economics
MARY EMMA GROSS, A.M. (Columbia).....	Director of Physical Education for Women
JAMES GEORGE ARBUTHNOT, B.S. (Kansas).....	Assistant Professor of Physical Education

*Absent on leave.

HORACE GUNTHERP, A.M. (Kansas).....	Assistant Professor of Zoology
MARTHA KOEHN, A.M. (Ohio).....	Assistant Professor of Home Economics
KATHERINE VAN WINKLE PALMER, B.S. (Washington).....	Acting Assistant Professor of Geology
WILLARD HENRY ELLER, B.S. (Is.E.) (California).....	Instructor in Physics
LOYD LEROY SMAL, Ph.D. (Columbia).....	Instructor in Mathematics
MARTHA DRESSLAR, M.S. (Columbia).....	Instructor in Home Economics
WILLIAM RONALD WILSON, A.B. (Washington).....	Instructor in Psychology
JOSEPH M. TAYLOR, M.S. (Adrian College).....	Acting Instructor in Mathematics
SARGENT G. POWELL, Ph.D. (Illinois).....	Instructor in Chemistry
LOU EASTWOOD ANDERSON.....	Acting Instructor in Physical Education
FREDERICK ANSTEN McMILLIN, M.S. (Willamette).....	Acting Instructor in Chemistry
HENRY WALTER STAGER, Ph.D. (California).....	Instructor in Mathematics
CLINTON LOUIS UTTERBACH, M.S. (Washington).....	Instructor in Physics
MARY AID, A.B. (Wisconsin).....	Instructor in Physical Education
MARCOUS A. HANNA, A.B. (Kansas).....	Instructor in Geology
EARL D. WEST, A.M. (Adrian College).....	Associate in Mathematics
ETHEL SANDERSON RADFORD, A.B. (McGill).....	Associate in Chemistry
HERMANCIE MULLENBISTER, Ph.D. (Royal University of Utrecht, Holland).....	Associate in Mathematics
LILIAN BLOOM, (Graduate, Medical Gymnastic Institute, Stockholm, Sweden).....	Associate in Physical Education
MARJORIE HELEN WHIPPLE, A.B. (Colorado College).....	Associate in Chemistry
CHARL ZENO DRAVES, M.S. (Ch.E.) (Washington).....	Associate in Chemistry
CLARENCE EDMUNDSON, B.S. (Idaho).....	Associate in Physical Education
**WILLIAM ALBERT HAMILTON, A.B. (Cornell).....	Associate in Mathematics
WALDO SEMON, B.S. (Washington).....	Associate in Chemistry
ELIZABETH S. SOULE, R.N. (Malden).....	Massachusetts Hospital School of Nursing and Public Health
CLYDE MYRON CRAMLET, M.S. (Washington).....	Associate in Mathematics
SHELDON LATTI GLOVER, B.S. (Washington).....	Associate in Geology
ARTHUR RUDOLPH JERBERT, B.S. (Washington).....	Associate in Mathematics
ROBERT LEE MATHEWS, (Notre Dame).....	Associate in Physical Education
ENOCH BAGSHAW, B.S. (Washington).....	Associate in Physical Education
GEORGE E. WHITWELL, B.S. (Massachusetts Institute of Technology).....	Associate in Chemical Engineering
LAWRENCE FISHER, A.B. (Wesleyan).....	Lecturer in Geology

**Died, Feb. 14, 1922.

GENERAL INFORMATION

The student entering the College of Science may take up one of several curricula, general or specialized, with the emphasis upon pure or applied science. These curricula, set fourth in detail in succeeding pages, are:

- I. Elective curricula with a major in some one department for students desiring general training in science, and leading to the degree of bachelor of science.
11. Suggested curricula in the various departments for students desiring to specialize in one department or obtain professional training, and leading to the degree of bachelor of science in the respective subjects.

A. Bacteriology	F. Physics
B. Biology	G. For prospective science teachers
C. Chemistry	H. Combined Science and Law
D. Geology	I. Library Science
E. Mathematics	

III. Prescribed curricula in vocational subjects.

- | | |
|----------------|---------------------------------|
| A. Pre-medical | C. Home Economics |
| B. Nurses | D. Physical Education for women |

LABORATORIES

(For description of science laboratories see pages 29-36)

REQUIREMENTS FOR ADMISSION

Correspondence.—Credentials and all correspondence relating to admission to any college or school of the University should be addressed to the Registrar, University of Washington. Full information concerning admission, registration, and expenses may be found on pages 40, 48, 49.

Freshman Standing.—Freshman standing in the University is granted to any recommended graduate of a four-year accredited secondary school who meets the scholarship requirements outlined on page 41.

Grouping of Subjects in Preparation for Admission.—In addition to the three units of English and two units of mathematics required of all students for admission to the University, and the two units of a foreign language required for admission to the College of Science, the student expecting to enter this college is advised to take as many as possible of the subjects specified on a succeeding page among "Subjects required either in a secondary school or in the University." A careful observance of these paragraphs will furnish a more complete preparation for college work, and will give the student correspondingly greater freedom of election in college.

CURRICULA

I. ELECTIVE CURRICULA WITH A MAJOR IN ONE DEPARTMENT

In this division of the college, in order to secure the degree of bachelor of science, a student must complete a total of at least 190 credits, and must observe the restrictions in regard to a major subject, necessary scholarship and elections in other colleges.

A. REQUIREMENTS IN A MAJOR SUBJECT

A student must earn from 36 to 60 credits in a single department, known as his major department. Not more than 96 credits may be counted in the major and one other department.

COLLEGE OF SCIENCE

B. SCHOLARSHIP REQUIREMENTS

Not less than three-fourths of the credits required for graduation must be earned with grades A, B, or C.

C. ELECTIONS IN OTHER COLLEGES

In engineering, fine arts, fisheries, forestry, law, mines, and pharmacy, electives will be allowed to the extent of 25 credits from any one college, and not to exceed 36 from all.

D. DISTRIBUTION OF REQUIRED WORK

At least 60 of the scholastic credits presented for graduation shall be in courses numbered above 100, and of these 60 credits, at least 18 shall be in the major subject. The requirements for graduation and their distribution shall be as follows:

1. Subjects Required in a Secondary School.

- (a) English, three years.
- (b) Elementary algebra, one year.
- (c) Plane geometry, one year.
- (d) One foreign language, two years.

2. Subjects Required Either in a Secondary School or in the University.

- (a) United States history and civics, one year (or ten credits).
- (f) History other than (e), one year (or ten credits).
- (g) Mathematics, geology*, or astronomy, one year (or ten credits).
- (h) Chemistry, one year (or ten credits).
- (i) Physics, one year (or ten credits).
- (j) Botany or zoology, one year (or ten credits).
- (k) A certificate of proficiency in English must be obtained either by registration or entrance examination.

3. Subjects Required in the University.

- (l) Physical education or military science, two years.
- (m) Economics, history, language and literature, philosophy, political science, psychology, sociology, 20 credits (ten credits only may be taken in any one of these subjects).

II. CURRICULA IN THE VARIOUS DEPARTMENTS

A. BACTERIOLOGY

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
English 1	5	English 2 or Elective ..	5	Elective	5
Chemistry 1	5	Chemistry 2	5	Chemistry 3	5
Zoology 1 or 3	5	Zoology 2 or 4	5	Sociology 1	5
Mil. Sci. or Phys. Ed. .	1½	Mil. Sci. or Phys. Ed. .	1½	Mil. Sci. or Phys. Ed. ...	1½

SECOND YEAR

Bacteriology 101	5	Bacteriology 102	5	Bacteriology 103	5
Chemistry 131	5	Chemistry 132	5	Chemistry 111	5
Anatomy 105	5	Anatomy 106	5	Anatomy 107	5
Mil. Sci. or Phys. Ed. .	1½	Mil. Sci. or Phys. Ed. .	1½	Mil. Sci. or Phys. Ed. .	1½

THIRD YEAR

Bacteriology 104	4	Bacteriology 105	4	Bacteriology 106	4
Physics 1	5	Physics 2	5	Physics 3	5
Electives	8	Electives	8	Electives	8

*Physiography (with laboratory work) taken in a high school will be accepted instead of geology.

†A student who has not taken in high school the amount of foreign language which may be required for admission to the college that he plans to enter, will make up the deficiency in the University as part of his regular schedule of work, but without receiving college credit for it. For the College of Science, the requirement may be satisfied with two entrance units, or 20 college hours, in any one foreign language.

FOURTH YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Bacteriology 110	4	Bacteriology 111	4	Bacteriology 112	4
Bacteriology 210	2	Bacteriology 211	2	Bacteriology 212	2
Bacteriology 213	3	Bacteriology 214	3	Bacteriology 215	3
Electives	6	Electives	6	Electives	6

B. BIOLOGICAL SCIENCES

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
English 1	4	English 2 or Elective ..	5	Mathematics or Elective ..	5
Botany or Zoology	5	Botany or Zoology	5	Electives	10
Electives	5	**Mathematics or Elect. ..	5		
Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%

SECOND YEAR

Chemistry or Physics ..	5	Chemistry or Physics ..	5		
Major	5	Major	5	Major	5
Electives	5	Electives	5	Electives	10
Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%

THIRD YEAR

Major	5	Major	5	Major	5
Soc., Pol. Sci. or Econ. ..	5	Soc., Pol. Sci. or Econ. ..	5	Electives	10
Electives	5	Electives	5		

FOURTH YEAR

Major	5	Major	5	Electives	15
Electives	10	Electives	10		

When a student decides to graduate under this curriculum with a major in anatomy, botany, or zoology, he should at once consult with the department concerned, a member of which will act as his advisor. The advisor will then plan a special curriculum for the student, fitting him for his chosen field of work, which curriculum must be submitted to the Dean of the College of Science for approval. Any change in the individual curriculum can only be made with the consent of the advisor and the dean.

C. CHEMISTRY

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Chemistry 1 or 21	5	Chemistry 2 or 22	5	Chemistry 3 or 23	5
Mathematics 4	5	Mathematics 5	5	Mathematics 6	5
English 1	5	English 2 or Electives ..	5	Electives	5
Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. E. ..	1%

SECOND YEAR

Physics 1 or 97	5	Physics 2 or 98	5	Physics 3 or 99	5
Chemistry 101	5	Chemistry 112	5	Chemistry 113	5
Mathematics 61	3	Mathematics 62	3	Electives	5
Electives	2	Electives	2	Mil. Sci. or Phys. Ed. ..	1%
Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%		

THIRD YEAR

Chemistry 131	5	Chemistry 132	5	Chemistry 133	5
Electives	5	Electives	5	Electives	5

**Two and one-half years of mathematics required, which may be taken in high school or University.

*In addition to the subjects specifically listed above, 10 credits in either French or German are required, to be completed before the end of the third year.

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GROUP OPTIONS		GROUP OPTIONS		GROUP OPTIONS	
Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
(a) General		(a) General		(a) General	
Chemistry 221	3	Chemistry 222	3	Chemistry 114	5
Electives	2	Electives	2		
(b) Industrial ¹		(b) Industrial		(b) Industrial	
Chemistry 121	5	Chemistry 122	5	Chemistry 123	5
(c) Physiological Chemistry		(c) Physiological Chemistry		(c) Physiological Chemistry	
Botany 143	5	Botany 144	5	Botany 145	5
(d) Sanitary and Food		(d) Sanitary and Food		(d) Sanitary and Food	
Chemistry		Chemistry		Chemistry	
Chemistry 105	5	Chemistry 106	5	Chemistry 107	5

FOURTH YEAR

Chemistry 181	5	Chemistry 182	5	Chemistry 183	5
Chemistry 224	2	Chemistry 225	2		

GROUP OPTIONS		GROUP OPTIONS		GROUP OPTIONS	
Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
(a) General		(a) General		(a) General	
Chemistry 211 or)		Chemistry 250	5	Chemistry 250	5
Chemistry 212 or)	5	Electives	3	Electives	5
Chemistry 250)..	3				
(b) Industrial		(b) Industrial		(b) Industrial	
Chemical Engineer-		Chemistry 211	2	Chemistry 250	5
ing 215	5	Chemistry 250	3	Electives	5
Electives	3	Electives	3		
(c) Physiological Chem-		(c) Physiological Chem-		(c) Physiological Chem-	
istry		Chemistry 142	5	istry	
Chemistry 141	5	Chemistry 193	3	Chemistry 146	3
Chemistry 192	3			Electives	7
(d) Sanitary and Food		(d) Sanitary and Food		(d) Sanitary and Food	
Chemistry		Chemistry		Chemistry	
Chemistry 141	5	Chemistry 142	5	Chemistry 146	3
Chemistry 192)		Chemistry 193	3	Electives	7
Electives).....	3				

D. GEOLOGY

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Geology 1	5	Mathematics 4	5	Mathematics 6	5
English 1	5	English 2 or Elective ..	5	Geology 2	5
Chemistry 1 or 21	5	Chemistry 2 or 22	5	Chemistry 3 or 23	5
Mil. Sci. or Phys. Ed. ..	1½	Mil. Sci. or Phys. Ed. ..	1½	Mil. Sci. or Phys. Ed. ..	1½

SECOND YEAR

Physics 1	5	Geology 21	5	Geology 117	3
Chemistry 111	5	Physics 2	5	Geology 120	3
Civil Engineering 1	3	Civil Engineering 21	3	Geology 122	2
Astronomy 11	5	Electives	3	Civil Engineering 4	3
Mil. Sci. or Phys. Ed. ..	1½	Mil. Sci. or Phys. Ed. ..	1½	Mil. Sci. or Phys. Ed. ..	1½

THIRD YEAR

Botany or Zoology	5	Botany or Zoology	5	Geology 125	4
Geology 123	5	Geology 124	4	Geology 121	3
Geology 131	5	Geology 118	3	Geology 124	3
Electives	5	Electives	3	Electives	3

FOURTH YEAR

Geology 126	3	Geology 127	5	Geology 128	2
Mining 51	3	Law 158	2	Metallurgy 102	5
Thesis	2	Thesis	2	Thesis	2
Electives	3	Electives	3	Electives	3

¹Options: A—Mechanical Drawing, B—Geology or Mineralogy, C—Biology Science.

²Students expecting to elect the industrial group in junior year will take Chemical Technology (Chem. 52) lectures only, 3 credits, during the sophomore year.

All electives must be approved by the head of the department of chemistry or other registration officer appointed by the department of chemistry.

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44

15-48
not offered

17-50

187
+10

E. MATHEMATICS

FIRST YEAR

<i>Autumn Quarter</i>	<i>Credits</i>	<i>Winter Quarter</i>	<i>Credits</i>	<i>Spring Quarter</i>	<i>Credits</i>
English 1	5	English 2 or Elective ..	5	History	5
Mathematics 4	5	Mathematics 5	5	Mathematics 6	5
*Physics 1	5	*Physics 2	5	Modern Foreign Lang. ..	5
Mil. Sci. or Phys. Ed. ..	1½	Mil. Sci. or Phys. Ed. ..	1½	Mil. Sci. or Phys. Ed. ..	1½

SECOND YEAR

History	5	Economics 1	5	Political Science 1	5
Mathematics 107	5	Mathematics 108	5	Mathematics 109	5
Modern Foreign Lang. ..	5	Chemistry 1	5	Chemistry 2	5
Mil. Sci. or Phys. Ed. ..	1½	Mil. Sci. or Phys. Ed. ..	1½	Mil. Sci. or Phys. Ed. ..	1½

THIRD YEAR

GROUP I—SECONDARY SCHOOL TEACHERS

Psychology 1	5	Philosophy or Logic	5	Astronomy 1	5
Biological Science	5	Biological Science	5	Mathematics	2 or 3
Mathematics	2 or 3	Mathematics	2 or 3	Education 101	5
Electives	3 or 2	Electives	3 or 2	Electives	3 or 2

GROUP II—COLLEGE AND UNIVERSITY TEACHERS

Psychology 1	5	Philosophy or Logic	5	Astronomy	5
Biological Science	5	Biological Science	5	Mathematics	2
Mathematics	2	Mathematics	2	Mathematics	2
Mathematics	3	Mathematics	3	Electives	5

GROUP III—STATISTICIANS AND ACTUARIES

Psychology 1	5	Philosophy or Logic	5	Astronomy 1	5
Biological Science	5	Biological Science	5	Mathematics 13	5
Business Ad. 64	5	Business Ad. 65	5	Electives	5

FOURTH YEAR

GROUP I—SECONDARY SCHOOL TEACHERS

Education 110	3	Education 119	3	Education	3
Education 145	5	Electives	12	Mathematics 127	5
Electives	7			Electives	7

GROUP II—COLLEGE AND UNIVERSITY TEACHERS

Mathematics	5	Mathematics	5	Mathematics	5
Electives	10	Electives	10	Electives	10

GROUP III—STATISTICIANS AND ACTUARIES

Mathematics 151	3	Mathematics 152	3	Mathematics 153	3
Political Science 60	5	Business Ad. 147	5	Electives	7
Electives	7	Business Ad. 118	5	Electives	7

F. PHYSICS

GROUP I—SECONDARY SCHOOL TEACHERS

<i>First Year</i>	<i>Credits</i>	<i>Second Year</i>	<i>Credits</i>
Mathematics	15	Physics	15
**Chemistry or Physics ..	15	Mathematics	15
English 5 or Adv. Electives ..	10	Chemistry	10
Bot., Zool., Geol., or Astron.	10	Psychology	5
<i>Third Year</i>	<i>Credits</i>	<i>Fourth Year</i>	<i>Credits</i>
Physics	15	Physics	6
Education	5	Education	13
Philosophy Group	15	Adv. Electives	18
Free Electives	10	Free Electives	18

*Students in Group III take Bus. Ad. 11-12 in place of Physics.

**Physics will be taken only when no high school physics is offered.

COLLEGE OF SCIENCE

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GROUP II—COLLEGE AND UNIVERSITY TEACHERS

<i>First Year</i>	<i>Credits</i>	<i>Second Year</i>	<i>Credits</i>
Mathematics	15	Physics	15
*Chemistry or Physics	15	Mathematics	15
English 5 or Adv. Electives	10	Chemistry	10
Bot., Zool., Geol., or Astron.	10	Psychology	5
<i>Third Year</i>	<i>Credits</i>	<i>Fourth Year</i>	<i>Credits</i>
Physics	15	Physics	9
Mathematics	10	Mathematics	9
Philosophy Group	15	Adv. Electives	12
Free Electives	9	Free Electives	15

GROUP III—INDUSTRIAL PHYSICISTS

<i>First Year</i>	<i>Credits</i>	<i>Second Year</i>	<i>Credits</i>
Mathematics	15	Physics	15
*Chemistry or Physics	15	Mathematics	15
English 5 or Adv. Electives	10	Chemistry	5
Bot., Zool., Geol., or Astron.	10	Psychology	5
		Adv. Electives	5
<i>Third Year</i>	<i>Credits</i>	<i>Fourth Year</i>	<i>Credits</i>
Physics	15	Physics	9
Philosophy Group	15	Chemistry	15
Chemistry	5	Adv. Electives	15
Adv. Electives	5	Free Electives	6
Free Electives	5		

Advanced electives must be approved by the department.

G. CURRICULUM FOR PROSPECTIVE SCIENCE TEACHERS

Most of those science students who expect to teach must begin in a small high school. In such schools one teacher usually teaches several or all the sciences. It is therefore desirable that such students get a wide range of scientific knowledge, rather than the intensive training secured by three years' work for a major in some one department. The following course permits the students to prepare in more sciences by not requiring three years of any one science.

<i>First Year</i>	<i>Credits</i>	<i>Second Year</i>	<i>Credits</i>
Science (botany, geology, or zoology) ..	10	History	10
Science (physics or chemistry)	10	Economics, Pol. Sci. or Sociology	10
Mathematics	5	Science	20
English	0 to 10	Electives	5
Electives	10	Mil. Sci. or Phys. Ed.	6
Mil. Sci. or Phys. Ed.	6		
<i>Third Year</i>	<i>Credits</i>	<i>Fourth Year</i>	<i>Credits</i>
Philosophy and Psychology	10	Education	18
Science	20	Science	10
Electives	15	Electives	17

REGULATIONS GOVERNING THIS CURRICULUM

- A student may select any three of the following sciences and must do the amount of work in any particular science, as indicated.
 Botany (exclusive of bacteriology), 20 credits
 Chemistry, 20 credits.
 Geology, 20 credits.
 Mathematics (exclusive of astronomy), 20 credits.
 Physics, 20 credits.
 Zoology, 20 credits.
- Included in or in addition to the work in (a) every student must take 5 credits in mathematics, 10 credits in physics, 10 credits in chemistry, 10 credits in botany or zoology.
- If 20 credits of chemistry are taken, only 15 of geology are required.
- When mathematics is selected as one of the three sciences, physics must be selected also.

*Physics will be taken only when no high school physics is offered.

- ~~(e) The modern foreign language required shall be either French or German and a continuation of the language taken in high school.~~
 (f) The work in freshman composition shall be 0 to 10 credits.

H. SIX-YEAR COURSE IN SCIENCE AND LAW

This is a combination course whereby a student may obtain the degrees of bachelor of science and bachelor of laws in six years. At the end of his third year, after he has earned 135 credits, together with the required credits in military science or physical education, including all of the required work, together with a major in some department, he may register in the School of Law for the first year's work in law. He will be granted the bachelor of science degree at the end of the fourth year, or whenever he completes the required work above specified, together with 9 additional credits in the College of Science and 36 credits in the School of Law; making a total of 190 credits for graduation. The fifth and sixth years of the combined course are devoted to completing the remainder of the required work for graduation from the School of Law.

I. FIVE-YEAR COURSE IN SCIENCE AND LIBRARY SCIENCE

This course is for students who are preparing to become professional librarians and who desire to receive degrees of bachelor of science and bachelor of library science. Under this arrangement a student should first complete all the required work of the course for science teachers (outlined above), substituting courses in library science for 18 credits in education, as stipulated for the senior year. A portion of the fourth year and all of the fifth year are devoted to the required subjects in library science. If this plan is carefully followed, a student should earn the degree of bachelor of science at the end of the fourth year, and the degree of bachelor of library science at the end of the fifth year. (See department of library science.)

III. PRESCRIBED CURRICULA IN VOCATIONAL SUBJECTS

A. PRE-MEDICAL CURRICULA

TWO AND FOUR-YEAR CURRICULA PREPARATORY TO MEDICINE

The University offers two curricula preparatory to the study of medicine. One of these is for two years, and will meet the requirements of those medical schools which require no more than two years of college work for admission to their professional study. The second is for four years, and prepares students for those medical schools that require for admission the completion of a full four-year college course. The curricula will not reduce the amount of work to be done by the student in the medical school but they are designed to increase its efficiency.

These courses are also well adapted for pre-dental students, as the best dental schools require the same foundation work as the medical schools.

Students entering the pre-medical courses should present the following among the 15 units required for entrance to the University (see Requirements for Admission, page 43):

2 units of English	1 unit of medieval and modern history
1 unit of algebra	1 unit of physics
1 unit of plane geometry	2 units of one foreign language
1 unit of United States history and civics	

Below is the outline of the four-year curriculum. The first and second years constitute the two-year curriculum:

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Chemistry 1 or 21	5	Chemistry 2 or 22	5	Chemistry 3 or 23	5
Zool. 3 (Pre-medical)	5	Zool. 4 (Pre-medical)	5	Zool. 5 (Pre-medical)	5
English 1	5	English 2	5	Psychology 1	5
Mil. Sci. or Phys. Ed.	1½	Mil. Sci. or Phys. Ed.	1½	Mil. Sci. or Phys. Ed.	1½

SECOND YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Physics 1	5	Physics 2	5	Physics 3	5
Chem. 131 (Organic) ..	5	Chem. 132 (Organic) ..	5	Sci. French or German ..	5
English 73	5	Psych. 126 (Abnormal) ..	5	Ec. 1 or Pol. Sci. 1 ..	5
Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%

THIRD YEAR

Anatomy 101	6	Anatomy 102	6	Anatomy 103	6
Anatomy 105	6	Anatomy 106	6	Anatomy 107	6
Bacteriology 104	4	Bacteriology 105	4	Bacteriology 106	4

FOURTH YEAR

Zoology 151	5	Zoology 152	5	Zoology 153	5
Chemistry 141	5	Chemistry 142	5	Bacteriology 112	4
Bacteriology 110	4	Bacteriology 111	4	Elective	9
Anatomy 104	4	Elective	4		

B. THREE-YEAR CURRICULUM FOR NURSES

Believing that a broader scientific education is desired by young women entering the nursing profession, the University offers a three-year pre-hospital course which when followed (or preceded) by the two-year hospital course in such hospitals as may be selected by the University, leads to a degree of bachelor of science in nursing and a certificate of nursing.

For admission to this curriculum a student must present 15 units by examination or certificate from an accredited school from which she has graduated. (See Requirements for Admission, page 43). These 15 units should include the following:

3 units of English	1 unit of United States history and civics
1 unit of algebra	1 unit of medieval and modern history
1 unit of plane geometry	1 unit of physics
	2 units of one foreign language

The curriculum:

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credit	Spring Quarter	Credits
Home Economics 4	3	English 1	5	Chemistry 6	5
Nursing 1	5	Chemistry 5	5	Psychology 1	5
Physics 89	5	Physics 90	5	English 2	5
Phys. Ed.	1%	Phys. Ed.	1%	Phys. Ed.	1%

SECOND YEAR

Zoology 3	5	Home Economics 106 ..	4	Nursing 3	3
Home Economics 105 ..	4	Physiology 55	5	Philosophy 1	5
Physiology 54	5	Anatomy 101	6	Anatomy 102	6
Elective	2	Elective	2	Dramatic Art	3
Phys. Ed.	1%	Phys. Ed.	1%	Phys. Ed.	1%

THIRD YEAR

Pharmacy 13	5	Nursing 102	3	Economics 1	5
English Literature 73 ..	5	Bacteriology 102	4	English Literature 75 ..	5
Bacteriology 101	4	Psychology 126	5	Bacteriology 103	5
Education 95	3	Sociology 1	5	Nursing 103	3
				Electives	2

NOTE—It is advised that the two years in the hospital follow the first quarter of the third year. This enables the student to return to the University to specialize in public health nursing.

CURRICULUM TO BE FOLLOWED IN A SELECTED HOSPITAL

	Credits		Credits
Demonstration of Nursing	5	Eye, Ear, Nose and Throat Nursing ..	5
Anesthesia	5	Neurological Nursing	5
Clinical Analysis	10	Children's Nursing	5
Medical Nursing	20	Infectious and Contagious Disease Nursing	5
Surgical Nursing	20	Administration	5
Obstetrical and Gynecological Nursing ..	20		

C. PRESCRIBED CURRICULA IN HOME ECONOMICS

Many fields of activity other than teaching are being offered to women trained in the work given in the department of home economics. In each line of vocational work offered, there is opportunity to put into practice the technical work of the laboratory. In food preparation, the students work in the University Commons, in commercial establishments and in hospitals to gain practical experience. In clothing, students learn first to sew for themselves and then for customers.

Seniors are required to live in the practice cottage located on the campus, where they take full responsibility for the management and care of the house for a family of four during a period of three weeks.

The following grouping is arranged as a guide in selecting the work that will best satisfy the requirements of each individual:

Group I, General, is planned for students who want a liberal college training with emphasis upon the subjects that pertain to the home and home life. Those who are interested in social betterment and who wish to enter definite welfare work may combine home economics and sociology in this curriculum.

Group II, Food and Nutrition, is offered for those students who wish to specialize for the purpose of teaching this phase of the work in institutions of higher education, for laboratory or research workers, and for students who wish to become dietitians in hospitals, sanatoria or private work. Those who intend to become sanitary and food inspectors are also advised to take the course.

Group III, Teachers' Curriculum. This group combines home economics and liberal arts subjects, chemistry, physics, bacteriology, fine arts, physiology and economics. Courses are arranged to meet the particular needs of home economics students. Practice teaching extending through one quarter in the Seattle schools is required. Graduates of this course will upon application to the State Board of Vocational Education receive a Smith-Hughes certificate.

Group IV, Institutional Management. This course combines the fundamental sciences, technical and business courses, with practice work. Young women with initiative and ability find positions that offer increasingly attractive returns when trained in this line of work.

Group V, Textiles, Clothing and Fine Arts. This curriculum requires a minimum of science but gives ample opportunity for combining work in design with clothing and textiles for the purpose of general culture or for use in a commercial field.

A teaching major in home economics consists of: H.E. 4, 5, 6, 8, 25, 107, 108, 112, 113, 143, 144, 145, 146, 147—with their prerequisites.

Any one of the five lines may lead to the degree of bachelor of science in home economics. Students who fulfill all entrance requirements of the College of Liberal Arts may use home economics as a major for the degree of bachelor of arts.

Students eligible to freshman standing in any college of the University are eligible to enter any one of the above five curricula in home economics; 180 + 10 credits are required for graduation from any of these curricula. For students who complete H.E. 5-6 or H.E. 105-106, 182 + 8 credits are required.

"Preferred elective" means that these requirements must be satisfied before any other course is taken.

GROUP I—GENERAL CURRICULUM

To provide a liberal college training, also for those students who wish to fit themselves for the following vocations:

1. Homemaking.
2. Social Service. (Elect economics and sociology.)

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
English 1	5	English 2	5	Physiology 7	5
Zool. 1 or Bot. 1.....	5	Chemistry 5	5	Chemistry 6	5
Home Economics 7	2	Zool. 2 or Bot. 2	5	Lang. (anc't or mod.)	5
Elective	3	Phys. Ed.	1	Phys. Ed	1½
Phys. Ed.	1½				

Preferred electives—H.E. 4, 8, 25, 43; Nursing 6.

SECOND YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Language (Anc. or Mod.)	5	Language (Anc. or Mod.)	5	Language (Anc. or Mod.)	5
History	5	History	5	Psychology	5
Phys. Ed.	1	Phys. Ed.	1	Economics	5
				Phys. Ed.	1

Preferred electives—H.E. 5, 6; P.S.D. 3; Bact. 101.

THIRD YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Philosophy 2	5	Sociology 1	5		

Preferred electives—H.E. 105-106, 112, 113; Physics 89-90.

FOURTH YEAR

Preferred electives—H.E. 144-145, 146, 148, 143; Arch. 1-2.

GROUP II—FOOD AND NUTRITION

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
English 1	5	English 2	5	Chemistry 6	5
Home Economics 7	2	Chemistry 5	5	Physiology 7	5
Phys. Ed.	1½	Phys. Ed.	1½	Lang., Lit., or Hist. ..	5
				Phys. Ed.	1½

Preferred electives—H.E. 4, 8, 25; P.S.D. 3.

SECOND YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Lang., Lit., or Hist.	5	Lang., Lit., or Hist. ..	5	Lang., Lit., or Hist.	5
Bacteriology 101	5	Bacteriology 102	5	Psychology 1	5
Chemistry 135	5	Chemistry 136	5	Chemistry 137	5
Phys. Ed.	1	Phys. Ed.	1	Phys. Ed.	1

Preferred electives—H.E. 5-6.

THIRD YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Economics	5	Chemistry 104	4		
		Sociology	5		

Preferred electives—H.E. 107-108; Nursing 5; Physics 89-90.

FOURTH YEAR

Preferred electives—H.E. 103, 148, 189, 190, 191 and related sciences.

GROUP III—SMITH-HUGHES TEACHER TRAINING

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
English 1	5	English 2	5	Lang., Lit. or Hist.	5
Physiology 7	5	Chemistry 5	5	Chemistry 6	5
Home Economics 7.....	2	Phys. Ed.	1½	Phys. Ed.	1½
Phys. Ed.	1½				

Preferred electives—H.E. 4, 8, 25; P.S.D. 3.

If H.E. 4 and 8 are carried in high school, substitute H.E. 43 and Nursing 5.

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SECOND YEAR

Autumn Quarter	Credit	Winter Quarter	Credit	Spring Quarter	Credit
Lang., Lit. or Hist. 5		Lang., Lit. or Hist. 5		Lang., Lit. or Hist. 5	
Chemistry 135 5		Chemistry 136 5		Psychology 1 5	
Phys. Ed. 1		Phys. Ed. 1		Phys. Ed. 1	
Preferred electives					
Home Economics 5 5		Home Economics 6 5		Bacteriology 101 5	
Education 101 5		Education 110 5		Economics 1 5	
				Education 119 5	
				Sociology 1 5	
Preferred electives—					
Physics 89 5		Physics 90 5		Home Economics 107-108 ... 3	
Home Economics 112 ... 5		Home Economics 113 ... 5		Home Economics 143 3	
FOURTH YEAR					
Education 160.J. 3		Education 161.J. 3		Education 145 5	
Preferred electives					
Home Economics 148 ... 2		Home Economics 144 3		Home Economics 145 ... 3	
Architecture 1, 2. 4					

GROUP IV—INSTITUTIONAL MANAGEMENT

To be taken by those who wish to fit themselves for the following vocations:

1. Dietitians.
2. House directors.
3. Managers of tearooms, lunchrooms, cafeterias.
4. Food service in state, municipal, or charitable institutions.

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
English 1 5		English 2 5		Chemistry 6 5	
Physiology 7 5		Chemistry 5 5		Lang., Lit. or Hist. 5	
Home Economics 7 2		Phys. Ed. 1½		Phys. Ed. 1½	
Phys. Ed. 1½					

Preferred electives—H.E. 4, 25; P.S.D. 3; Law 54.

SECOND YEAR

Lang., Lit. or Hist. 5	Lang., Lit. or Hist. 5	Lang., Lit. or Hist. 5
Phys. Ed. 1	Chemistry 135 5	Chemistry 136 5
	Phys. Ed. 1	Psychology 1 5
		Phys. Ed. 1

Preferred electives—H.E. 5-6; Bact. 101.

THIRD YEAR

Economics 1 5 Sociology 1 5
Preferred electives—H.E. 107-108, 124, 143; Chem. 104, 144; Physics 89-90.

FOURTH YEAR

Preferred electives—H.E. 121, 122, 123, 125, 144, 145, 183, 189, 190; B.A. 11; Arch. 1-2.

GROUP V—TEXTILES, CLOTHING AND FINE ARTS

SUMMARY

	Credits		Credits
College requirements 84		Free electives 29	
Fine Arts 31		Physical Education 10	
Home Economics 58			

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SUGGESTED SCHEDULE

College Requirements	Credits	Fine Arts	Credits	Home Economics	Credits
English 9		P. S. & D. 8-10-11 4		H. E. 8, Ele. Clothing ... 3	
Lang., Lit. or Hist. 20		P. S. & D. 169-170 4		H. E. 25, Textiles 5	
Laboratory Science 10		Arch. 1-2 5		H. E. 27, Non-textiles ... 3	

College Requirements	Credit	Fine Arts	Credit	Home Economics	Credit
Physiology 7	5	P. S. & D. Electives	18	H.E. 101-102	4
Economics 1	5			H.E. 112-113 (Clothing)	10
Sociology 1	5			H.E. 130-131 Trade dressmaking	12 6
Psychology 1	5			H.E. 133-134 Costume design	10 5
Philosophy 1 or 2	5			H.E. 135 Millinery	3
				H.E. 143 Home Furnish.	3
				H.E. 145 House Managem't	2 3
				H.E. 188 Adv. Textiles	2
Total	64	Total	81	Total	57 9
Free Electives	29	Physical Education	10		50

D. PHYSICAL EDUCATION FOR WOMEN

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
English 1	5	Lang., Lit., History or Electives	5	English	5
Lang., Lit., Hist. or Elective	5	Chemistry 5	5	Lang., Lit., History or Electives	5
Zoology 1	5	Zoology 2	5	Chemistry 6	5
Phys. Ed.	1 1/2	Phys. Ed.	1 1/2	Phys. Ed.	1 1/2

SECOND YEAR

Physiology 54	5	Physiology 55	5	Sociology 1	5
Lang., Lit., Hist. or Elective	5	Psychology 1	5	Education 101	5
Anatomy 101	3	Anatomy 102	3	Anatomy 103	3
Phys. Ed.	1 1/2	Phys. Ed.	1 1/2	Phys. Ed.	1 1/2
Preferred Electives		Physical Education 112	3	Physical Education 113	3
Physical Education 111	3				

THIRD YEAR

Physics 89	5	Physics 90	5	Education 110	5
Preferred Electives		Phys. Ed. 105 (Dancing)	2	Phys. Ed. 106 (Dancing)	2
Phys. Ed. 104 (Dancing)	2	Phys. Ed. 102 (Gymnas.)	3	Phys. Ed. 103 (Gymna.)	3
Phys. Ed. 101 (Gymna.)	3	Phys. Ed. 132 (Correc.)	4	Phys. Ed. 133 (Correc.)	4
Phys. Ed. 131 (Correc.)	4			Phys. Ed. 122 (Kin'g'y)	3
Phys. Ed. 167 (Athlec.)	2			Phys. Ed. 169 (Athlet.)	2

FOURTH YEAR

Education 145	3	Education 145	2	Electives	7
Education 119	3	Electives	7	Phys. Ed. 163 (Anthro)	2
Education 180.R.	2	Phys. Ed. 155 (Dancing)	2	Phys. Ed. 156 (Dancing)	2
Preferred Electives—		Phys. Ed. 152 (Ad. in Phys. Ed.)	2	Phys. Ed. 153 (Meth.)	2
Phys. Ed. 154 (Dancing)	2	Phys. Ed. 171 (Athlet.)	2	Hyg. Inst.	2
Phys. Ed. 170 (Athlet.)	2			Phys. Ed. 172 (Athlet.)	2
Physical Education, 69 credits		Electives, 32 credits.			

If chemistry and physics have been taken in high school, Chemistry 5 and 6 and Physics 89 and 90 may be eliminated.

Of the preferred electives in physical education, the minimum is 58 and the maximum 64 credits.

A student may also use physical education as a major, following the prescriptions outlined under group I (curricula with major in one department).

COURSES

For description of courses, see Departments of Instruction, printed elsewhere in this catalogue. (See Index.)

GENERAL NOTE.—Each student is to be held either for the admission and graduation requirements of the catalogue under which he enters, or for those of the catalogue under which he graduates.

SCHOOL OF EDUCATION

THE FACULTY

HENRY SUZZALLO, Ph.D. (Columbia). LL.D. (California).....PRESIDENT
 JOHN THOMAS CONDON, LL.M. (Northwestern) DEAN OF FACULTIES
 FREDERICK ELMER BOLTON, Ph.D. (Clark).....Professor of Education; DEAN
 FRED CARLETON AYER, Ph.D. (Chicago).....Professor of Education
 EDWARD D. RANDOLPH, A.M. (Columbia)Professor of Education
 CURTIS TALMADGE WILLIAMS, Ph.D. (Clark).....Assistant Professor of Education
 PAUL WASHINGTON TERRY, Ph.D. (Chicago).....Assistant Professor of Education
 HARLAN CAMERON HINES, Ph.D. (Iowa).....Assistant Professor of Education
 ALEXANDER CRIPPEN ROBERTS, A.M. (Washington).....Associate in Education
 CECIL LEONARD HUGHES, B.Ed. (Washington), Teaching Fellow in Education

HENRY LANDES, A.M. (Harvard).....Professor of Geology; Dean of the College of Science
 EDMOND STEPHEN MEANT, M.L. (Wisconsin).....Professor of History
 CAROLINE HAVEN OBER,Professor of Spanish
 TREVOR KINCAID, A.M. (Washington)Professor of Zoology
 FREDERICK MORGAN PADELFORD, Ph.D. (Yale).....
Professor of English; Dean of the Graduate School
 FREDERICK ARTHUR OSBORN, Ph.D. (Michigan).....
Professor of Physics; Director of the Physics Laboratories
 DAVID THOMSON, B.A. (Toronto) ... Professor of Latin; Dean of the College of Liberal Arts
 PIERRE JOSEPH FREIN, Ph.D. (Johns Hopkins).....Professor of Romanic Languages
 THEODORE CHRISTIAN FRYE, Ph.D. (Chicago).....Professor of Botany
 ROBERT EDOUARD MORITZ, Ph.N.D. (Strassburg).....Professor of Mathematics
 IRVING MACKEY GLEN, A.M. (Oregon)..Professor of Music; Dean of the College of Fine Arts
 EDWIN JOHN VICKNER, Ph.D. (Minnesota).....Professor of Scandinavian Languages
 EFFIE ISABEL RAITT, A.M. (Columbia) Professor of Home Economics
 WILLIAM PIERCE GORSUCH, A.B. (Knox).....Professor of Public Speaking and Debate
 STEVENSON SMITH, Ph.D. (Pennsylvania),Professor of Psychology
 STEPHEN IVAN MILLER, JR., A.B. (Stanford), LL.B. (Michigan).....
Professor of Economics; Dean of the College of Business Administration
 HOWARD WOOLSTON, Ph.D. (Columbia).....Professor of Sociology
 EDWARD McMAHON, A.M. (Wisconsin) Associate Professor of American History
 ROBERT MAX GARRETT, Ph.D. (Munich).....Associate Professor of English
 EDWIN JAMES SAUNDERS, A.M. (Harvard) Assistant Professor of Geology
 ERNEST OTTO ECKELMAN, Ph.D. (Heidelberg),Assistant Professor of German
 FRANCES DICKET, A.M. (Columbia),Assistant Professor of Music
 MARY EMMA GROSS, A.M. (Columbia), Director of Physical Education for Women

GENERAL STATEMENT

The College of Education has been changed into a School of Education, the reorganization to go into effect at the beginning of the autumn quarter, 1922. The School will be based upon two years of college or normal school work. Only one course in education, Introduction to Education, will be allowed in the sophomore year. The degree awarded will be bachelor of arts in education or bachelor of science in education according to the character of the academic work chosen.

The work in the School will be strictly professional and will seek to afford special training and technique for the various types of teachers and educational specialists. Emphasis will be placed upon graduate work. A probationary teaching certificate, the five year normal diploma, will be granted for a minimum amount of professional study but all wishing to secure the life diploma will be required to spend at least one quarter in residence after graduation and complete a total of 35 credits (including the undergraduate work) in education.

Scope and Aims.—The curriculum of the School of Education assumes that teachers should have a broad and liberal education, supplemented by professional training which gives a knowledge of the pupils to be taught, the problems to be met, and new meaning to the subjects of instruction, as well as fundamental principles of teaching; and that they should be masters of some special subject which they expect to teach.

The School is especially fitted to provide teachers of the following types: (1) high school teachers; (2) high school principals; (3) superintendents of public schools; (4) grammar school principals; (5) supervisors of primary schools; (6) supervisors and teachers of music, drawing, manual and industrial arts, home economics, physical training and other special subjects; (7) normal school and college instructors in education; (8) experts in educational research; (9) specialists in the education of defectives; (10) playground directors; (11) Y. M. C. A. and Y. W. C. A. workers; (12) juvenile court workers.

General Academic Work.—Because of the variety of work which every teacher is likely to be required to do upon beginning to teach, and because of the requirements for state certificates, elementary college courses should be taken in not less than four subjects which are taught in the high schools.

Specialized Academic Work.—Each teacher should have thoroughly extended preparation in one subject and reasonable preparation in at least two additional subjects. Experience has shown that the following combinations are most frequently demanded: Latin, French; Latin, Greek; English, French; English, history, civics; English, Latin, history; Spanish, French; mathematics, physics, chemistry; botany, zoology, physiology, physiography; home economics alone or in connection with one or two other subjects; manual and industrial arts alone or in connection with one or two other subjects; commercial subjects alone or with other subjects; athletics, music or drawing in combination with other work. One teacher is frequently required to teach all of the sciences. Public speaking is desirable as a part of the preparation for teaching English.

Professional Work.—The requirements for the academic major and minors secure a proper distribution of the academic subjects. The professional work consists (a) of the courses given in the department of education, (b) the teachers' courses given in the various academic departments.

Special Teachers' Courses.—Many of the academic departments have teachers' courses for the purpose of studying the problems of teaching their subjects in the high schools. Work in special methods relating to particular

subjects is given by those dealing most directly with the subject matter. Foundation principles of general methods as based upon the laws of learning and teaching are developed in the department of education.

Observation and Supervised Teaching.—By an arrangement between the the University and the schools of Seattle students in the department of education may observe the regular work in certain schools (at present twelve are used) and do supervised teaching under direction of the regular teachers of the school and the university professor in charge of that work. In this way students have an opportunity to observe and gain valuable experience under exceptionally favorable conditions.

Industrial Arts.—While no separate department of industrial arts is maintained during the regular year, special attention has been devoted to this work during the summer quarter. A good curriculum may be secured during the regular academic year by selecting from the courses in engineering, fine arts, and education. Because of the excellent industrial arts work in the Seattle public schools, students have unusual facilities for observing the best organization and equipment. A large number of industrial centers and pre-vocational classes are maintained in various parts of the city.

Athletics and Playground Activities.—There is at the present time, a strong demand for teachers, both men and women, who can direct the various forms of athletics and playground activities in the high school and the grammar grades.

Public School Music.—Not only is there a demand for specially trained supervisors of music in the schools, but every school needs teachers who can give some assistance in the general musical activities of the school and the community. Every teacher who has any musical ability ought to secure some training in music and participate in some of the musical organizations of the University.

Debating, Dramatics, Public Speaking.—Every teacher will be called upon to assist in the incidental work of the school. The small towns cannot afford special teachers of public speaking and debate and consequently the teacher who can assist in these lines increases his usefulness. Every student should participate in some of these lines all through the college course and definite courses in them should be taken.

Journalism in High Schools.—Newspaper writing is being introduced in some of the best high schools as a part of the English course. It seems to afford a valuable incentive to many pupils in their English work. The teacher who undertakes this work needs to be especially well trained professionally as well as in English and journalism. For a proper combination of courses the student should consult the departments of education, English, and journalism.

Commercial Subjects.—At present the demand upon the University for teachers of commercial subjects far exceeds the supply. To prepare for this line of work the student should include courses in bookkeeping, stenography, commercial law, commercial policies, commercial geography, besides courses in economics, and the professional training in education.

Teaching of Technical Subjects in College.—Many students of engineering, forestry, law and other technical subjects ultimately plan to teach those subjects in colleges or technical schools. An increasing number of such students desire professional training in educational theory and methods as a part of their preparation.

The Study of Education and Citizenship.—Courses in education are valuable, not only for those who expect to teach, but also for those who expect to

be citizens of any community. Many of the courses in education, therefore, are rightly coming to be pursued by students not expecting to become teachers.

Extension Service.—The department of education is glad to render service to the cause of education in many ways besides through the regular courses of instruction. Members frequently give addresses at teachers' institutes, parent-teachers' associations, educational associations, community centers, school dedications, school commencements, etc. They are also glad to conduct educational surveys as far as time will permit.

Saturday and Evening Classes.—To accommodate the teachers of Seattle and vicinity several classes in education are scheduled on Saturday and during the late afternoon and evening.

Vocational Secretary.—The University maintains a vocational secretary for the purpose of assisting students to secure desirable positions. The services of this officer are entirely free to students and graduates of the University and to employers.

Honorary Educational Societies.—Active chapters of Phi Delta Kappa, men's national honorary educational fraternity, and Pi Lambda Theta, women's national honorary educational sorority have been established for several years. Each has a large and vigorous membership. A men's education club has also recently been organized.

RULES AND REGULATIONS

FACULTY OF THE SCHOOL OF EDUCATION

MEMBERSHIP

1. The faculty of the School of Education shall consist of:
 - (a) All instructors in the Department of Education.
 - (b) All instructors giving teachers' courses in academic subjects.
 - (c) All heads of departments that give subject matter courses represented in the high schools.

NOTE—All special teachers' courses shall be listed and numbered as education courses.

POWERS AND DUTIES OF THE FACULTY

The faculty of the School of Education shall have the following powers and duties:

1. To make and execute such rules and regulations as may be necessary for the government of the School of Education and to exercise such other powers and duties as are common to other schools and colleges of the University.

ADMISSION

The admission requirements shall be:

- (a) Completion of 90 quarter hours of college credit earned in the University of Washington or in an accredited institution of equal rank. The disposition of these 90 hours shall be determined by mutual agreement of the faculty of the School of Education and the faculty of the particular college concerned, and shall be administered by the dean of the college in accord-

ance therewith. In addition there must be completed the usual undergraduate requirements in physical training or military drill.

Sophomores who have earned 65 quarter hours of credit may enroll in course 101, Introduction to Education.

- (b) Graduation from a two year advanced course in an accredited normal school, under conditions outlined on page 47 will fulfill the admission requirements.
- (c) Claims for advanced university credit based on excess normal school credits will be passed on by a committee consisting of the registrar, the dean of the School of Education, and the heads of the departments concerned.

GRADUATION

For graduation from the School of Education with the degree of bachelor of arts in education or bachelor of science in education there shall be completed 90 quarter hours of credit beyond requirements for entrance to the school, at least 48 of which shall be in upper division subjects. In the total of 180 quarter hours of academic credit required before graduation from the School of Education there must be included the following:

	Credits
Academic Major	35
Academic Minor	20
Education, including 2 hours special teachers' course.....	25

The education courses required for the degree of bachelor of arts in education, or bachelor of science in education shall include the following:

Introduction to Study of Education <u>101</u>	5 credits
Psychology of Teaching Methods <u>110</u>	5 "
Secondary Education <u>119</u>	3 "
Teachers' Course in Special Subjects <u>120</u>	2 "
Practice Teaching <u>125</u>	5 "
Educational Measurements <u>150</u>	3 "
Educational Electives	2 "
Total	25 credits

1. An academic major consists of 35 credits in some subject other than education.

2. An academic minor consists of 20 credits in some subject other than education.

3. The academic major and minor may be selected from any subjects now recognized in the Colleges of Liberal Arts, Science, Fine Arts, or Business Administration, or such others as may be approved by the Faculty of the School of Education. Students may minor (but not major) in journalism. Students may major but not minor in physical education for women.

4. Part of the preparation in the academic major and minor should be completed before entrance to the School of Education.

5. No courses in education may be taken before the junior year, except that sophomores who have earned 65 quarter hours of credit may enroll in course 101, Introduction to Education.

6. Normal school graduates who are candidates for the bachelor's degree from the School of Education shall be required to take the following courses in education:

	Credits.
Secondary Education -----	3
Teachers' Course in Special Subject -----	2
Educational Measurements -----	3
Social Surveys of Education -----	2
Electives in Education -----	5
	<hr/> 15

7. Experienced teachers who are candidates for the bachelor's degree from the School of Education shall be required to take the following courses:

	Credits.
Introduction to Education -----	5
Psychology of Teaching Methods -----	5
Secondary Education -----	3
Teachers' Course in Special Subject -----	2
Educational Measurements -----	3
Social Surveys of Education -----	2
Electives in Education -----	5
	<hr/> 25

8. Students in other colleges or schools of the University may elect courses in education according to conditions fixed by those colleges and not inconsistent with the regulations of the School of Education.

9. Students are allowed to combine, in preparation for teaching, courses from the departments of political science, sociology and economics, for the academic major or the academic minor. Such combinations must be approved by the Dean of the School of Education and the head of the department in which the academic major or minor is selected.

10. Courses in manual and industrial arts, or in those combined with drawing, will be accepted as an academic minor toward graduation from the School of Education.

NEW REQUIREMENTS FOR NORMAL AND LIFE DIPLOMAS

1. The University is authorized by law to issue diplomas valid in the State of Washington as teachers' certificates to teach in any high school or to superintend or supervise in any public school of the state, as described below:

2. The University Five-Year Normal Diploma, valid for a period of five calendar years from date of issue, is granted on the following conditions:

3. (a) Graduation from the University, (b) evidence of good health, such general scholarship and personal and moral qualities as give promise of success and credit in the teaching profession. Active professional interest in teaching is an important factor. The faculty of the School of Education may refuse to recommend candidates for the normal diplomas who fail to measure up to the foregoing standards. (c) Completion of the following courses in education:

	Credits.
Introduction to Study of Education -----	5
Psychology of Teaching Methods -----	5
Secondary Education -----	3
Teachers' Course in Special Subject -----	2
Practice Teaching -----	5
	<hr/> 20

4. Graduates from the University of Washington with no credits in education who desire the five-year normal diploma shall be required to complete the following courses in education:

	Credits.
Psychology of Teaching Methods -----	5
Secondary Education -----	3
Teachers' Course in Special Subject -----	2
Educational Measurements -----	3
Social Surveys of Education -----	2
Practice Teaching -----	5
	<hr/>

20

5. Graduates from other colleges who desire the five-year normal diploma shall be required to be in residence one academic year and to complete the following courses in education:

	Credits.
Psychology of Teaching Methods ----- 110	5
Secondary Education ----- 119	3
Special Teachers' Course ----- 160	2
Educational Measurements ----- 150	3
Social Surveys ----- 152	2
Practice Teaching ----- 145	5
	<hr/>

20

They shall also be required to complete 10 credits in some teaching subject approved by the head of the department in which the academic major work is chosen.

6. The teachers' course in the academic major is required, if offered.

7. Graduates of the two-year course of state normal schools who subsequently graduate from this University and who become candidates for the University five-year-normal diplomas must earn in this University at least 15 credits in education as follows:

	Credits.
Secondary Education ----- 119	3
Teachers' Course in Special Subject ----- 160	2
Educational Measurements ----- 150	3
Social Surveys of Education ----- 152	2
Electives in Education -----	5
	<hr/>

15

8. Normal School graduates must qualify for the University normal diploma or life diploma to be eligible to teach in high schools. The diplomas from the normal schools qualify the holders for elementary schools only.

9. Persons who have received the master's or doctor's degrees from this University are eligible to the University five-year normal diploma provided they have fulfilled the specific normal diploma requirements.

10. The University life diploma will be granted to candidates who fulfill the requirements for the University five-year normal diploma and who have completed:

(a) At least one quarter of residence study subsequent to receiving the five-year diploma.

(b) A minimum of 35 quarter hours in education, which may include a maximum of 5 hours in teachers' courses in special subjects.

(c) A minimum of 5 additional quarter hours in an academic subject which will normally be the academic major or minor.

(d) Who also furnish satisfactory evidence of having taught successfully for at least twenty-four months.

11. The life diploma will not be granted until candidates have taught at least one school year subsequent to receiving the normal diploma even though they have had twenty-four months of teaching experience.

12. No person shall be eligible to receive the degree, the normal diploma or the life diploma who has not been in residence at this University at least three quarters.

13. The use of education as the only recommended teaching subject (or major subject) is (for normal diploma) limited to cases of men and women in administrative positions whose undergraduate work shows a fair degree of preparation in two or more high school subjects. In all other cases, each candidate for the five-year normal diploma or life diploma must be recommended by at least one department besides education.

MINIMUM FOR DEGREE OF BACHELOR OF ARTS IN EDUCATION, OR BACHELOR OF SCIENCE IN EDUCATION, AND FIVE-YEAR NORMAL DIPLOMA

For High School Teachers

Regular Students University of Washington	Normal School Graduates
*Credits	*Credits
Introduction to the Study of Education 5	Secondary Education 3
Psychology of Teaching Method 5	Teachers' Course in Special Subject 2
Secondary Education 3	Educational Measurements 3
Teachers' Course in Special Subject 2	Social Surveys in Education 2
Practice Teaching 5	Elective in Education 5
Educational Measurements 3	
Electives in Education 2	
25	15

MINIMUM REQUIREMENTS IN EDUCATION FOR STUDENTS FROM OTHER COLLEGES OF THE UNIVERSITY

For Five-Year Normal

Regular Students from Other Colleges of the University	Graduates from University of Washington with no Under- graduate Credits in Education	Graduates from Other Accred- ited Colleges with no Under- graduate Credits in Education.
*Credits	*Credits	*Credits
Introduction to the Study of Education 5	Psychology of Teaching Method 5	Psychology of Teaching Method 5
Psychology of Teaching Method 5	Secondary Education 3	Secondary Education 3
Secondary Education 3	Teachers' Course in Spec- ial Subject 2	Teachers' Course in Spec- ial Subject 2
Teachers' Course in Spec- ial Subject 2	Practice Teaching 5	Practice Teaching 5
Practice Teaching 5	Educational Measurements 3	Educational Measurements 3
	Social Surveys 2	Social Surveys 2
		Academic Subjects 10
		Free Electives 15
20	20	45
		One year of residence in this University These will presumably select work to apply on a master's degree.

*Quarter Hours

**DISTRIBUTION OF COURSES IN EDUCATION IN PREPARATION FOR SPECIAL TYPES
OF POSITIONS. LEADS TO MASTER'S DEGREE.**

Requirements in Education for Bachelor of Arts in Education, or Bachelor of Science in Education.

High School Principal	Grade School Principal	Village Superintendent	City Superintendent
*Credits	*Credits	*Credits	*Credits
Introduction to the Study of Educ. 5	Introduction to the Study of Educ. 5	Introduction to the Study of Educ. 5	Introduction to the Study of Educ. 5
Psych. of Teaching Method . . . 5	Psych. of Teaching Method 5	Psych. of Teaching Method . . 5	Psych. of Teaching Method . . . 5
Secondary Education 3	Secondary Education 3	Secondary Education 3	Secondary Education 3
Teachers' Course in Special Subject 2	Teachers' Course in Special Subject 2	Teachers' Course in Special Subject 2	Teachers' Course in Special Subject 2
Practice Teaching Educ. Measurements 3	Practice Teaching Educ. Measurements 3	Practice Teaching Educ. Measurements 3	Practice Teaching Educ. Measurements 3
Electives in Education 2	Electives in Education 2	Electives in Education 2	Electives in Education 2
25	25	25	25

ADDITIONAL REQUIREMENTS IN EDUCATION FOR MASTER'S DEGREE

Junior High School 2	Junior High School 2	Educational Sociology 5	Junior High School 2
High School Organization . . . 2	Individual Mental Testing 6	Psych. of Elementary School Subjects 8	Group Intelligence Tests 5
Psych. of High School Subjects 3	Psych. of Elementary School Subjects 3	Educational Administration . . . 6	Psych. of Elementary School Subjects 3
Educational Administration . . 6	Educational Administration . . 6	Electives 8	Educational Administration . . 6
Electives 9	Electives 5	Thesis 6	Electives 6
Thesis 6	Thesis 6	28	Thesis 6
28	28	28	28

**REQUIREMENTS IN EDUCATION FOR CANDIDATES FOR SPECIAL POSITIONS AND FOR
DEGREE OF DOCTOR OF PHILOSOPHY**

Requirements in Education for Bachelor of Arts in Education, or Bachelor of Science in Education.

College Instructors in Education	Normal School Instructors in Education	Directors of Educational Research
*Credits	*Credits	*Credits
Introduction to the Study of Education 5	Introduction to the Study of Education 5	Introduction to the Study of Education 5
Psych. of Teaching Method 5	Psych. of Teaching Method 5	Psych. of Teaching Method 5
Secondary Education 3	Secondary Education 3	Secondary Education 3
Teachers' Course in Special Subject 2	Teachers' Course in Special Subject 2	Teachers' Course in Special Subject 2
Practice Teaching 5	Practice Teaching 5	Practice Teaching 5
Educ. Measurements 3	Educ. Measurements 3	Educ. Measurements 3
Electives in Education . . . 2	Electives in Education . . . 2	Electives in Education . . . 2
25	25	25
Elect, 60 hours from the following: (thesis required)	Elect, 60 hours from the following: (thesis required)	Elect, 60 hours from the following: (thesis required)
Educational Sociology . . . 3	Educational Sociology . . . 3	Educational Sociology . . . 3
Educational Administration . 6	Educational Administration . 6	Educational Administration . 6
Individual Mental Testing . . 6	Individual Mental Testing . . 6	Individual Mental Testing . . 6
Psychology of Elementary School Subjects 3	Psychology of Elementary School Subjects 3	Psychology of Elementary School Subjects 3
Psychology of High School Subject 3	Psychology of High School Subjects 3	Psychology of High School Subjects 3
Junior High School 2	Junior High School 2	Junior High School 2
Child Study or Adolescence . 5	Child Study or Adolescence . 5	Child Study or Adolescence . 5
Group Intelligence Tests . . 5	Group Intelligence Tests . . 5	Group Intelligence Tests . . 5
Experimental Education . . . 3	Experimental Education . . . 3	Experimental Education . . . 3
History of Education 5	History of Education 5	History of Education 5

*Quarter Hours

*Credits	*Credits	*Credits
Seminar, Vocat'nal Guidance 6	Seminar, Vocat'nal Guidance 6	Seminar, Vocat'nal Guidance 6
Seminar, School Survey ... 6	Seminar, School Survey ... 6	Seminar, School Survey ... 6
Seminar, Educational Meas- urements 6	Seminar, Educational Meas- urements 6	Seminar, Educational Meas- urements 6
Philosophy of Education .. 6	Philosophy of Education .. 6	Philosophy of Education .. 6
Seminar, Educational Soci- ology 6	Seminar, Educational Soci- ology 6	Seminar, Educational Soci- ology 6
Seminar, Comparative Ed- ucation 6	Seminar, Comparative Ed- ucation 6	Seminar, Comparative Ed- ucation 6
Electives 8	Electives 8	Electives 8
Thesis 30	Thesis 30	Thesis 30
120	120	120

*Quarter Hours

REQUIREMENTS FOR ACADEMIC MAJORS AND MINORS AND DEPARTMENTAL RECOMMENDATIONS FOR THE NORMAL AND LIFE DIPLOMAS

"An academic major consists of 35 credits in some subjects other than education.

"An academic minor consists of from 20 credits in some subject other than education."

In a few cases more than the minimum number of credits are required by a department because the first courses listed are in reality high school courses. If students have high school credits in these subjects the minimum of 35 college credits will suffice.

Below are listed the courses specified by the various departments for the academic majors and minors in the School of Education. Those who expect major or minor recommendations by the academic departments for teaching or on the normal or life diplomas, as required by the State Board of Education, should comply with the requirements made by the various departments. However, the academic major or minor graduation requirements will be fulfilled with the minimum of 35 or 20 credits respectively. For descriptions of the courses see the respective department statements.

ASTRONOMY

Academic Minor (major not offered): Courses 1, 2, 112, 123, 131. It is recommended that students who wish to combine astronomy with mathematics or physics add course 172.

BACTERIOLOGY

Academic Major: Courses 101, 102, 103, 104, 106, and 9 hours selected from 210-211-212, 213-214-215; total 36 credits.

Academic Minor: Course 101, 102, 103, and from numbers above 200 enough to total 20 credits.

BOTANY

Academic Major: Minimum 35 credits, including courses 105, 106, 107, and 140, 141, 142, or 143, 144, 145.

Academic Minor: Minimum 20 credits of which at least 15 credits should be in courses above 100. For a minor recommendation to teach botany at least 25 credits.

Major students in botany should take at least a year of chemistry.

CHEMISTRY

Academic Major: Courses 21-22-23, 101, 111, 131-132; minimum 35 credits.

Academic Minor: Courses 21-22-23, 101, 111, or (131-132); or course 5-6, 135-136; minimum 20 credits. To be recommended to teach the subject the student must add 23 or 101; total 25 credits.

For the minor, students should have had at least high school physics; for the major they should have a year of college physics. Grades must average at least C to secure a recommendation for teaching chemistry.

CIVICS

Academic Major, combining Political Science, Sociology and Economics: Political Science 1, Sociology 1, Economics 1, and one of the following groups: Political Science, 29, 60, 100, Political Science, electives; Sociology 29, 51, 55, 56, 60; Economics 57, 61, 105, 160; minimum 35 credits.

Academic Minor: Political Science 1, Economics 1, Sociology 1, and 5 (for teaching recommendation 10) additional from one of the three subjects; minimum 20 credits.

CLASSICAL LANGUAGES AND LITERATURE

Academic Minor in Latin: Latin 21, 22, 23, two of 50, 60, 70; 107. Total 108 or 109. Greek 1 and 2. Total 32-36 credits.

Academic Minor in Latin: Latin 21, 22, 23, two of 50, 60, 70; 107. Total 24-28 credits.

Academic Major in Greek: Greek 1, 2, 3, 4, 5, 101-102-103; Latin 10 credits. Total 37 credits.

Academic Minor in Greek: Greek 1, 2, 3, 4, 5. Total 21 credits.

COMMERCIAL TEACHING

See Economics and Business Administration.

DRAMATIC ART

Academic Major: Courses 1-2-3, 21-22-23, 101-102-103, 111-112-113; total 45 credits.

Academic Minor: Courses 1-2-3-, 21-22-23, 101-102-103; total 30 credits.

DRAWING

Academic Major: Courses 5-6-7, 9-10-11, 16-17-18, 101, 153, and either 53-54-55, or 103-104 or 105-106; total 36 to 42 credits.

Academic Minor: Courses 5-6-7, 9-10-11, 16-17-18, 101, 153, total 30 credits.

ECONOMICS AND BUSINESS ADMINISTRATION

Academic Major: Courses 1, 57, 61, 105, 160; electives to total minimum of 35 credits.

Academic Minor: Courses 1, 57, 61; electives to total minimum of 20 credits.

See also Civics for combinations with Political Science and Sociology.

COMMERCIAL TEACHING 160c

Academic Major: Courses 11, 12, 54, 55, ~~65~~ 160, minimum 35 credits. If more are elected 101-102 is recommended.

Academic Minor: Courses 11, 12, 64, 65; minimum 20 credits.

Shorthand and typewriting are almost absolutely necessary for commercial teaching in high school and should be taken although no college credit is given.

ENGLISH

Academic Major: Freshman composition, teachers' course 188-189, senior conference 191-192-193, electives to total 35 credits, exclusive of freshman composition.

Academic Minor: 20 credits exclusive of freshman composition.

For either a major or a minor it is desirable to divide the time between the extensive courses which give broad surveys and the intensive courses which deal critically with limited periods or movements.

FINE ARTS

(See Drawing and Music.)

GEOLOGY

Academic Major: Courses 1 or 12, 2, 10, 11, 21, 31, 116, 120; minimum 36 credits.

Academic Minor: Courses 1 or 12, 2, 21; minimum 20 credits.

GERMANIC LANGUAGES AND LITERATURE

Academic Major: Minimum 35 credits, including Education 160 G. course 160-161-162.

Academic Minor: Minimum 20 credits.

Major Recommendation for teaching, at least 27 credits in courses above 100, including Education 160.G.

HISTORY

Academic Major: Minimum 35 credits, including course 1-2. Electives on advice of the head of the department.

Academic Minor: Minimum 20 credits, including 1-2, or 5-6, or 57-58. Electives on advice of the head of the department.

HOME ECONOMICS

Academic Major: Courses 4, 5-6, 7, 8, 25, 107-108, 112-113, 143, 144, 145, 148; total 56 credits.

Academic Major in Food and Nutrition: Courses 4, 5-6, 7, 43 or 144, 107-108, 145, 148; total 39 credits.

Academic Minor in Food and Nutrition: Courses 5-6, 7, 107-108, 145; total 28 credits.

Academic Minor in Textiles and Clothing: Courses 7, 8, 25, 112-113, 143, 144; total 26 credits.

Academic Major in Textiles and Clothing: In addition to the minor 148, and at least 8 credits from 130, 133, 135; total 36 credits.

JOURNALISM

Academic Minor: Courses 51, 75, 101, 120, 150; total 25 credits.

Academic Major in Journalism not offered in the School of Education.

MATHEMATICS

Academic Major: Minimum 35 credits, including courses 5, 109. *calc. alg. calc.*

Academic Minor: Minimum 20 credits, including courses 4, 5.

MUSIC: (PUBLIC SCHOOL)

Academic Major: Courses 1-2-3, 4-5-6, 7-8-9, 14-15-16, 51-52-53, 54-55-56, 113-114-~~115~~ total 45 credits.

Academic Minor: Courses 1-2-3, 7-8-9, 14-15-16, 54-55-56; total 24 credits.

PHILOSOPHY

Academic Major: Minimum 35 credits, including course 101-102-103.

Academic Minor: Minimum 20 credits, including course 101-102-103.

PHYSICAL EDUCATION FOR WOMEN

Academic Major: Total of 45 credits including physical education 101-102-103, 104-105-106, 111-112-113, 131-132-133, 154-155-156, 170-171. Education 160.R. Practice Teaching, Education 145 is additional in all cases except by exemption by head of department of physical education. Electives chosen to suit the different needs under the advice of the head of the department of physical education, and the dean of the School of Education and 101-102-103, Physiology 54-55 are prerequisites for certain foregoing courses in anatomy or physiology.

Students desiring to prepare for *Community Recreation and Leadership* may select the following combination for an academic major in the department of physical education:

Academic Major: Dramatic Art 31; Sociology 1, 55, 57, 62; Drawing 169, 170, 171; Physical Education 104-105-106, 111-112-113, 154-155-156, 167, 169, 170-171-172, 173; minimum 34 credits. Substitutions in sociology and fine arts may be made with the approval of the head of the department of physical education.

(Anatomy or physiology not required for the courses in physical education mentioned in the foregoing paragraph.)

PHYSICS

Academic Major: Courses 1, 2, 3, and not less than 20 credits from other courses under 200; minimum 35 credits.

Academic Minor: Courses 1, 2, 3, and not less than 5 credits from other courses under 200; minimum 20 credits.

Recommendation as a major or minor for the normal diploma same as the foregoing with all grades above C.

POLITICAL SCIENCE

Academic Major: Courses 1, ~~2~~ 60, 100, and electives to make minimum of 35 credits. *now 130*

Academic Minor: Courses 1, ~~2~~ 60, 100, minimum 18 credits. *now 130*

For teaching civics, courses in history, economics and sociology are de-

sirable as supporting subjects. See also civics for combinations with economics and sociology.

PSYCHOLOGY

Academic Major: Courses 1, 101, 106, 109, 111, 112, 114, 124 and electives to make a minimum of 35 credits.

Academic Minor: Courses 1, 106, 112, 114, and electives to make a minimum of 20 credits.

Recommendations for the normal diploma are made on the bases of quality rather than merely the required number of credits. Only high grade students can be recommended because of the specialized character of psychology work as a teaching subject.

ROMANIC LANGUAGES AND LITERATURE

Academic Major: Minimum of 35 college credits in one language.

Academic Minor: Minimum of 20 college credits in one language.

Recommendation for Teaching French: Courses 1-2-3, 4-5-6, 7-8-9, 41, 101-102-103, 158, 159, 160.T, electives from literary courses 10 credits; total 59 credits.

Recommendation for Teaching Spanish: Courses 1-2-3, 4-5-6, 7-8-9, 101-102-103, 159, electives from literary courses 10 credits; total 55 credits.

In many cases a part of the French or Spanish courses may have been taken in high school.

The distinction between major and minor recommendations for teaching French or Spanish are determined upon the basis of quality rather than quantity.

SCANDINAVIAN LANGUAGES AND LITERATURE

Academic Major: Minimum 35 credits.

Academic Minor: Minimum 20 credits.

Suggested minors in Swedish: Courses 1-2-3, 4-5-6, 23-24-25; minimum 21 credits.

Suggested minor in Norwegian courses 10-11-12; 13-14-15; 20-21-22.

Because of the diversity of previous preparation, it will be necessary to consult the head of the department in each case.

SOCIOLOGY

Academic Major: Courses 1, 52, 55, 56, 60, and electives to make a minimum of 35 credits.

Academic Minor: Courses 1, one from above, and electives to make a minimum of 20 credits.

Electives may be along one of three lines, viz: anthropology, social theory or social problems. Important basic and supplementary subjects, zoology, psychology, statistics, political science.

See civics for combination with economics and political science.

ZOOLOGY

Academic Major: Courses 1-2 or 54-55 and electives to make a minimum of 35 credits.

Academic Minor: Courses 1-2 or 45-55 and electives to make a minimum of 20 credits.

COURSES

For description of courses, see Departments of Instruction, printed elsewhere in this catalogue. (See Index).

LIBRARY SCHOOL

THE FACULTY

HENRY SUZZALLO, Ph.D. (Columbia), LL.D. (California), PRESIDENT
JOHN THOMAS CONDON, LL.M. (Northwestern), DEAN OF FACULTIES
WILLIAM ELMER HENRY, A.M. (Indiana), Professor of Library Science; DIRECTOR
CHARLES WESLEY SMITH, A.B., B.L.S. (Illinois), .. Associate Professor of Library Science
ELLEN F. HOWE, A.B. (Washington), Graduate in Library Science (Washington), Certificate
(Carnegie Library School), Instructor in Library Science
ROBINSON SPENCER, A.B. (Wesleyan University), B.L.S. (Illinois),
..... Instructor in Library Science
MARIE SMART ALFONSO, A.B. (Nebraska), B.S. in L.S. (Washington)
..... Instructor in Library Science

GENERAL STATEMENT

The Library School is a professional school offering opportunity for education in librarianship.

Being an educational institution, the library should not be entrusted to persons of merely elementary acquirements. Its conduct requires a larger and more comprehensive educational equipment and outlook than can be had with less than that signified by the bachelor's degree.

The technical curriculum extends through three quarters—short in comparison with the academic curriculum, because the general educational equipment of the librarian is of larger significance than the technical education, but neither is sufficient without the other.

Graduates of the School are competent to take charge of a small public library or to take an assistant's place in any department of the larger libraries. After a reasonable experience in either of these positions, they have shown themselves competent to conduct libraries of medium size with excellent success.

ADMISSION

Admission is granted as follows:

1. To graduate students who hold the baccalaureate degree from any college or university of good standing, whose undergraduate work in either or both high school and college has included the equivalent of at least twenty college credits in each of two modern foreign languages, German and French preferred. Slight deficiencies in the languages, however, may be accepted as conditions, but must be removed within the period of study in the Library School. Upon the completion of forty-six credits in library science, and the removal of any language conditions, the candidate will be granted the degree of bachelor of science in library science.

2. To students who have qualified for senior standing in the College of Liberal Arts or in the elective curricula in the College of Science—having earned 145 credits, including 10 credits in military science or physical education and including all required work. Such students may finish the curriculum in three quarters, provided they meet the language requirements prescribed in paragraph one above. The completion of forty-six credits in library science shall constitute and satisfy the requirements for the degree of bachelor of arts.

ADVISORY SUGGESTIONS

Before entering the School the student should be a typist of accuracy and fair speed.

No one with serious physical defects or in ill health can readily secure a position in library service, therefore such persons should not ask admission to the School.

Persons beyond thirty years of age are advised not to enter the School unless they have already had experience in library service.

CURRICULA IN LIBRARY SCIENCE

	<i>Credits</i>
Order routine, trade bibliography, and circulation	2
Classification and subject headings	3
Cataloging	6
Reference	6
History of books and libraries	2
Organization and extension	2
Administration	3
Subject bibliography	2
Book selection	7
Work with children and schools	2
Special lectures	1
Practice (300 clock hours)	10

Each recitation or lecture period presupposes two hours preparation and twelve such periods are counted as one credit, and thirty clock hours of practice are counted as one credit.

Practice.—Practice under careful supervision covers 300 clock hours, fifteen hours per week through ten weeks each during the winter and spring quarters.

The practice time is divided about equally between the University Library and the Seattle Public Library.

The Seattle Public Library offers rather unusual opportunities for students to practice in varied phases of work under careful supervision of trained librarians of large experience.

COURSES

For description of courses, see Departments of Instruction, printed elsewhere in this catalogue. (See Index).

COLLEGE OF BUSINESS ADMINISTRATION

THE FACULTY

HENRY SUZZALLO, Ph.D., (Columbia), LL.D. (California), **PRESIDENT**
 JOHN THOMAS CONDON, LL.M. (Northwestern), **DEAN OF FACULTIES**
 STEPHEN IVAN MILLER, JR., A.B. (Stanford), LL.B. (Michigan), Professor of Economics; **DEAN**
 LESLIE JAMES AYER, B.S., J.D. (Chicago), Professor of Law
 THOMAS L. KIRLER, Ph.D. (George Washington University),
 Professor of Business Administration
 HOWARD T. LEWIS, M.A. (Wisconsin), Professor of Business Administration
 JAMES E. GOULD, A.M. (Harvard), Professor of Maritime Commerce; Dean of Men
 HOWARD H. PRESTON, Ph.D. (Iowa), Professor of Business Administration
 VANDEVEER CUSTIS, Ph.D. (Harvard), Associate Professor of Business Administration
 HARRY E. SMITH, Ph.D. (Cornell), Associate Professor of Business Administration
 WILLIAM D. MORIARTY, Ph.D. (Michigan), .. Associate Professor of Business Administration
 WILLIAM E. COX, A.M. (Texas), Associate Professor of Business Administration
 THERESA S. McMAHON, Ph.D. (Wisconsin), .. Assistant Professor of Business Administration
 *MACY M. SKINNER, Ph.D. (Harvard)
 JAMES M. McCONAHAY, M.A., (Washington and Jefferson), LL.B. (Northwestern), C.P.A.
 Lecturer in Accounting
 PIERCE C. DAVIS, C.P.A., Lecturer in Accounting
 J. P. ROBERTSON, C.P.A., Lecturer in Accounting
 W. B. HENDERSON, Lecturer in Business Administration
 HOMER E. GREGORY, A.M. (Chicago), Instructor in Business Administration
 KARL E. LEIB, A.B. (Stanford), Instructor in Business Administration
 OSCAR E. DRAPER, Instructor in Business Administration
 J. G. DRISCOLL, JR., A.B. LL.B., (Stanford), Instructor in Business Administration
 V. V. TARBILL, M.B.A. (Harvard), Instructor in Business Administration
 F. H. HAMACK, Instructor in Business Administration
 WILLIAM A. RUSSELL, Acting Instructor in Business Administration
 HORACE D. MCGIRRE, Associate in Business Administration
 FRANK C. VAN DE WALKER, A.B., Associate in Business Administration
 RAYMOND F. FARWELL, A.B., (California), Associate in Maritime Commerce

FREDERICK M. PADELFORD, Ph.D. (Yale), Professor of English; Dean of the Graduate School
 EDWARD McMAHON, A.M. (Wisconsin), Associate Professor of American History
 WILLIAM SAVERY, Ph.D. (Harvard), Professor of Philosophy
 ROBERT EDOUARD MORITZ, Ph.D. (Nebraska), Ph.D. (Strassburg), Professor of Mathematics
 HENRY KREITZER BENSON, Ph.D. (Columbia), Professor of Chemical Engineering
 CARL EDWARD MAGNUSSON, Ph.D. (Wisconsin), E.E. (Minnesota),
 Professor of Electrical Engineering; Dean of the College of Engineering
 FREDERICK ELMER BOLTON, Ph.D. (Clark),
 Professor of Education; Dean of the School of Education
 EFFIE ISABEL RAITT, A.M. (Columbia), Professor of Home Economics
 STEVENSON SMITH, Ph.D. (Pennsylvania), Professor of Psychology

TEACHING FELLOWS AND STUDENT ASSISTANTS

A. P. TROW, A.B., Teaching Fellow in Business Administration
 W. E. DICKERSON, B. A., Teaching Fellow in Business Administration
 G. I. BUTTERBAUGH, B.A., Teaching Fellow in Business Administration
 E. L. BLAINE, Teaching Fellow in Business Administration
 L. L. NEWMAN, Student Assistant in Business Administration
 F. W. WOODBRIDGE, Student Assistant in Business Administration
 O. B. WERNER, Student Assistant in Business Administration
 R. H. LAMONT, Student Assistant in Business Administration

*Absent on leave

GENERAL STATEMENT

Modern business has reached the stage where internal and external economics must be realized. The industrial management of today seeks to reduce waste in materials and labor, and to promote the most effective organization of the factors of production. Such a task requires not only special knowledge, but also vision of the highest order.

A knowledge of accounting, statistics, labor efficiency, resources, credit, insurance, business law and organization, is fundamental for a proper understanding and an intelligent direction of our modern industrial system. Such studies as psychology, sociology, government, ethics, and history provide the larger equipment necessary for dealing with this industrial system in its proper perspective and its social relationships.

The establishment of a well-ordered plant is the basis of a strong position in production. Just as important is the problem of successfully moving the product to the consumer. Markets are no longer local, but national and even international. Every business man has occasion to study salesmanship, advertising, transportation routes and rates, banking, exchange, tariffs and government regulation. The more extended state control of industry especially is calling for unusual ability to cooperate.

The College of Business Administration aims to train students to meet the general as well as the specific problems of modern industry.

REQUIREMENTS FOR ADMISSION

Full information regarding requirements for admission, registration, and expenses may be found on pages 40, 48, 49.

Additional Requirements.—The faculty of the College of Business Administration reserves the right to ask for additional work from students who present such irregular or specialized credit as to constitute an insufficient basis for high standard in their college subjects.

GRADUATION

Degrees.—The College of Business Administration is a professional college. Its graduates receive the degree of bachelor of business administration. The degree of bachelor of business administration will be conferred upon any student who has fulfilled the entrance requirements and who presents 190 credits in subjects required or approved by the faculty of the College of Business Administration.

The degree of master of business administration will be conferred upon students who complete in a satisfactory manner an approved course ordinarily requiring three quarters of advanced work beyond that required for the bachelor's degree. Students will not be advised to do graduate work unless they have shown unusual ability in their previous courses. Graduate courses must be selected after consultation with the head of the department in which the student is doing his major work and the approval of the dean of the College of Business Administration.

Students entering from other colleges and universities must satisfy not only the general requirements of the University, but also the requirements of the College of Business Administration.

Not less than three-fourths of the credits required for graduation must be earned with grades of A, B, or C.

CURRICULA

All students in the College of Business Administration must have their selection of courses approved each quarter by a member of the college faculty.

The College requires the following courses:

FIRST YEAR		Oredits
✓ B. A. 1	General Economics. Autumn, winter, spring, summer. Lecture and discussion groups. Five hours.....	5
✓ B. A. 7	Economic Resources of the World. Autumn, winter, spring, summer. Five hours.....	5
B. A. 11-12	Elementary Accounting. Autumn, winter, spring, summer. Two quarters	10
Math. 11-12	Mathematical Theory of Investments. Autumn, winter, spring, summer. Two quarters.....	10
*Eng. 1-2	Written and Oral English. Autumn, winter, spring, summer. Two quarters.....	10
Psych. 1	Elements of Psychology. Autumn, winter, spring, summer. Five hours	5
		45
SECOND YEAR		
History	Nine or ten hours. Two quarters required.....	9 or 10
B. A. 57	Money and Banking. Autumn, winter, spring, summer.....	5
B. A. 54-55-56	Business Law. Autumn, winter, spring, summer. Three quarters required.....	9
B. A. 61	Social and Economic Standards of Living, or Sociology I. Autumn, winter, spring, summer.....	5
Math 13	Theory of Statistics. Autumn, winter, spring, summer, or five hours elective in some other college if approved by the Dean.....	5
	Approved electives. Ten hours of accounting or equal number of hours in other colleges than that of Business Administration, 11 or....	12
		45
THIRD YEAR		
✓ Pol. Sci 1	Elements of Government. Autumn, winter, spring, summer. One quarter required.....	5
	Approved electives 40 hours.....	40
		45
FOURTH YEAR		
✓ Phil. 2	Introduction to Social Ethics. Autumn, winter, spring, summer. One quarter required.....	5
B. A. 160	Advanced Economics. Autumn, winter, spring, summer. One quarter required.....	5
Research	Five hours in selected major department 30 credits of approved electives	30
		45

The requirements of the first two years are made sufficiently broad to establish a foundation for the profession of business, regardless of the particular field in which the student may later be interested.

No student is allowed to enter the junior-senior courses of the College of Business Administration unless he has reached at least junior standing and satisfied the prerequisites to these courses.

The prerequisites to the junior-senior courses have been established after the most careful consideration of the standard of efficiency and performance aimed at in the course, and the educational value which the course might have for the student. It has been decided that to admit students who have not completed the carefully arranged prerequisites would imperil not only the quality of the work of the instructor, but also would make it impossible for the students to gain the full benefit of the course. But the college realizes that certain just claims to exceptions from above rules could be presented, and has decided that exceptions can be granted to those students whose maturity and extended experience in economic affairs of a suitable nature make it just and reasonable. Proof of these experiences and qualifications will be passed upon by the dean of the College of Business Administration.

The junior and senior years are, in a large part, reserved for the student's selected field of business interest. Each student or group of students will be guided and assisted by the instructor designated for that department of work, under the general direction of the dean of the College of Business Administration.

*If not credited, substitution of approved electives in Colleges other than the College of Business Administration.

Fields of Training.—The following fields of business training are suggested:

- | | |
|---|-------------------------|
| 1. Accounting | 7. Transportation |
| 2. Business Finance | 8. Maritime Commerce |
| 3. Industrial and Employment Management | 9. Foreign Trade |
| 4. Marketing and Sales | 10. Insurance |
| 5. Merchandising | 11. Secretarial Work |
| 6. Advertising | 12. Commercial Teaching |

SUGGESTED COURSES FOR THE PROFESSIONAL FIELDS

In the first year the student fulfills the standardized requirements (see pages 43-45).

For the second, third, and fourth years the following courses are suggested.**

ECONOMICS

Those students in Liberal Arts choosing economics as their major, should consult with the head of the department or the professor in charge of Advanced Economics with regard to a proper selection of courses. The following courses in the College of Business may be regarded as available for such students.

- | | |
|-----------------------------------|---|
| 1. General Economics | 159. Advanced Money and Banking |
| 2. Economics for Engineers | 160. Advanced Economics |
| 57. Money and Banking | 161. American Labor Problems |
| 58. Risk and Insurance | 162. European Labor Problems |
| 61. Social and Economic Standards | 164. Labor Legislation (3 hours) |
| 104. Economics of Transportation | 165. Economics of Consumption (2 hours) |
| 105. Business Organization | *166. Women in Industry |
| 106. Economics of Marketing | 168. History of Economic Thought |
| 121. Corporation Finance | *169. Economics of Distribution |
| 123. Investment and Speculation | 201. Graduate Seminar |
| 127. Foreign Exchange | 205. Economic Problems |
| | 207. Seminar in Labor |

MARITIME COMMERCE

The suggested curriculum in Maritime Commerce is intended to give preliminary training for the steamship business. After the first year of residence students will be assigned to apprenticeships so that they can alternate quarters of attendance with quarters of office practice and sea service. For details of the apprenticeship plan students should consult with the Maritime Commerce Department.

In addition to the regular requirements of the College of Business Administration the following courses are prescribed for a major in Maritime Commerce: Ship Operation; Paper Work in Shipping; Navigation; Risk and Insurance; Marine Insurance; Water Transportation; Ports and Terminals; Shipping and Consular Regulations; Admiralty Law.

Except for the requirements of the College of Business Administration and of the major, the following outline is merely suggestive. Numbers refer to quarters of residence; e. g., fifth quarter means fifth quarter at the University, exclusive of time spent as apprentices.

First Quarter	Credits	Second Quarter	Credits	Third Quarter	Credits
General Economics	5	History	5	History	5
Economic Resources of the World	5	English I	5	English II	5
Accounting	5	Accounting	5	Psychology	5

**No student will be permitted to specialize in a field of work without having had his schedule approved by the major professor in charge of that field.

*Not given in 1922-1923

UNIVERSITY OF WASHINGTON

<i>Fourth Quarter</i>	<i>Credits</i>	<i>Fifth Quarter</i>	<i>Credits</i>	<i>Sixth Quarter</i>	<i>Credits</i>
Ship Operation	5	Paper Work in Shipping	5	Navigation	5
Risk and Insurance.....	5	Money and Banking....	5	Theory of Statistics ...	5
Business Law	3	Business Law	5	Business Law	3
Typewriting	0	Typewriting	0	Typewriting	0
Or Elective	2	Or Elective	2	Or Elective	2
<i>Seventh Quarter</i>	<i>Credits</i>	<i>Eighth Quarter</i>	<i>Credits</i>	<i>Ninth Quarter</i>	<i>Credits</i>
Economics of Markets..	5	Business Insurance	5	Water Transportation...	5
Political Science	5	Business Correspondence	5	Philosophy II	5
Electives	7	Business Statistics	5	Electives	6
		Electives	2		
<i>Tenth Quarter</i>	<i>Credits</i>	<i>Eleventh Quarter</i>	<i>Credits</i>	<i>Twelve Quarter</i>	<i>Credits</i>
Admiralty Law	3	Advanced Economics	5	Shipping and Consular Reg-	
Ports and Terminals....	3	Research	5	ulations	3
Employment Management	5	Foreign Trade	5	Rail and Marine Rates..	5
Exporting and Importing	5			Foreign Trade	5

ACCOUNTING

SECOND YEAR

Second Year Accounting, 10 Credits

THIRD YEAR

<i>Autumn Quarter</i>	<i>Credits</i>	<i>Winter Quarter</i>	<i>Credits</i>	<i>Spring Quarter</i>	<i>Credits</i>
Advanced Accounting ...	5	Advanced Accounting ...	5	Commercial Credits	5
Business Organization..	5	Corporation Finance ...	5	Business Statistics	5
Political Science	5	Banking Practice	5	Investments and Specu-	
				lations	5

FOURTH YEAR

Cost Accounting and In-		Auditing Practice and		Income Tax and CPA...	5
stallation	5	Professional Ethics...	5	Advanced Economics ..	5
Corporation and Railroad		Industrial and Employ-		Research in Accounting..	5
Accounting	5	ment Management	5		
Social Ethics	5	Office Management	5		

BUSINESS FINANCE

SECOND YEAR

Second Year Accounting, 10 Credits

THIRD YEAR

<i>Autumn Quarter</i>	<i>Credits</i>	<i>Winter Quarter</i>	<i>Credits</i>	<i>Spring Quarter</i>	<i>Credits</i>
Business Organization ..	5	Corporation Finance	5	Investments and Specu-	
Foreign Exchange	5	Banking Practice	5	lations	5
Political Science	5	Social Ethics	5	Commercial Credits	5
				Business Statistics	5

FOURTH YEAR

Economics of Transporta-		Railroad Finance	5	Advanced Money and	
tion	5	Research in Business		Banking	5
Risk and Social Insur-		Finance	5	Advanced Economics...	5
ance	5	Approved Electives	5	Approved Electives	5
Approved Electives	5				

INDUSTRIAL AND EMPLOYMENT MANAGEMENT

SECOND YEAR

Second Year Accounting, 10 Credits

THIRD YEAR

<i>Autumn Quarter</i>	<i>Credits</i>	<i>Winter Quarter</i>	<i>Credits</i>	<i>Spring Quarter</i>	<i>Credits</i>
Business Organization ..	5	Corporation Finance	5	Business Statistics	5
Economics of Markets...	5	Sales Management	5	Political Science	5
Economics of Advertising	5	Advanced Accounting ..	5	Advanced Accounting ...	5

FOURTH YEAR

<i>Autumn Quarter</i>	<i>Credits</i>	<i>Winter Quarter</i>	<i>Credits</i>	<i>Spring Quarter</i>	<i>Credits</i>
American Labor Problems	5	Industrial and Employment Management.....	5	Commercial Credits	5
Cost Accounting	5	Ethics	5	Investments and Speculations	5
Plant Construction	5	Advanced Economics.....	5	Research in Industrial and Employment Management	5

MARKETING*

THIRD YEAR

<i>Autumn Quarter</i>	<i>Credits</i>	<i>Winter Quarter</i>	<i>Credits</i>	<i>Spring Quarter</i>	<i>Credits</i>
Economics of Transportation	5	Corporation Finance	5	Business Statistics	5
Economics of Marketing ..	5	Sales Management	5	Commercial Credits	5
Economics of Advertising	5	Political Science	5	Electives	5

FOURTH YEAR

Advanced Money and Banking	5	Advanced Economics	5	History of Economic Thought	5
Trade of Far and Near East	5	Trade of Europe.....	5	Trade of Americas.....	5
Research in Marketing and Advertising	5	Industrial Management..	5	Electives	5

*Students in Marketing, Merchandising and Advertising should consult with the head of that department as early as possible in their college course, especially if they have in mind some phase of this subject in which they desire to specialize. For students in merchandising and advertising there are electives in Home Economics, Journalism and Painting, Sculpture and Design which need to be fitted into their program, and conflicts in hours may result if these electives are too long delayed. For students who desire to specialize in the Marketing of Lumber not only B.A. 109 but Forestry 6, 126, 153 and 157 are highly desirable.

MERCHANDISING

FIRST YEAR

<i>Autumn Quarter</i>	<i>Credits</i>	<i>Winter Quarter</i>	<i>Credits</i>	<i>Spring Quarter</i>	<i>Credits</i>
General Economics	5	English	5	English	5
Economic Resources	5	Accounting	5	Accounting	5
Psychology	5	Approved Electives	5	Approved Electives	5

SECOND YEAR

Business Law	3	Business Law	3	Business Law	5
Money and Banking.....	5	Social and Economic Standards	5	Theory of Statistics.....	5
Textiles	3	Industrial History	5	Home Furnishing	3
Industrial History	5			Approved Electives	4

THIRD YEAR

Economics of Marketing..	5	Sales Management	5	Ethics	5
Economics of Advertising ..	5	Political Science	5	Sociology	5
Approved Electives	5	Approved Electives	5	Approved Electives.....	5

FOURTH YEAR

During the senior year the student will spend alternate quarters on full time in the merchandising field in which he desires to specialize. (See general statement of Apprenticeships in Marketing, Merchandising, and Advertising). The program for the other quarters of the senior year will be made up of approved electives chosen with reference to his special field, only advanced economics being required of all.

ADVERTISING

THIRD YEAR

<i>Autumn Quarter</i>	<i>Credits</i>	<i>Winter Quarter</i>	<i>Credits</i>	<i>Spring Quarter</i>	<i>Credits</i>
Advanced Composition ...	5	Advanced Composition ..	5	Business Statistics	5
Economics of Marketing..	5	Sales Management	5	Commercial Credits	5
Economics of Advertising	5	Corporation Finance	5	Political Science	5
Approved Electives	2	Electives	2		

FOURTH YEAR

Trade of Far and Near East	5	Trade of Europe	5	Trade of Americas.....	5
Advanced Money and Banking	5	Advanced Economics	5	Electives	5
Typography of Advertising	2	Typography of Advertising	2	Typography of Advertising	2
Research in Marketing and Advertising	3	Research in Marketing and Advertising.....	3	Research in Marketing and Advertising.....	3

TRANSPORTATION

Majors in Transportation should work out their complete four year course after consultation with the head of the department. The group of subjects chosen will vary in accordance with the interest of the student. No effort is made here to fit a complete course for transportation majors upon the minimum requirements as stated on page 106.

SECOND YEAR

<i>Autumn Quarter</i>	<i>Credits</i>	<i>Winter Quarter</i>	<i>Credits</i>	<i>Spring Quarter</i>	<i>Credits</i>
Advanced Composition..	5	Advanced Composition..	5	.....

THIRD YEAR

Economics of Transportation	5	Railroad Finance and Administration	5	Business Statistics	5
Business Report Writing	5	Banking Practice	5	Water Transportation...	5
Business Organization...	5	Marine Insurance	5	Commercial Credits	5

*FOREIGN TRADE

THIRD YEAR

<i>Spring Quarter</i>	<i>Credits</i>	<i>Winter Quarter</i>	<i>Credits</i>	<i>Spring Quarter</i>	<i>Credits</i>
Economics of Transportation	5	Marine Insurance	5	Commercial Credits	5
Economics of Markets..	5	Political Science	5	Economics of Advertising	5
Foreign Exchange	5	Electives	5	Business Statistics	5

FOURTH YEAR

Exporting and Importing	5	Trade of Far and Near East	5	Rail and Marine Rates	5
Commercial Policies ..	5	Trade of Europe	5	Trade of Americas	5
Advanced Economics	5	Research in Foreign Trade	5	Social Ethics	5

INSURANCE

Second Year Accounting, 10 Credits

THIRD YEAR

<i>Autumn Quarter</i>	<i>Credits</i>	<i>Winter Quarter</i>	<i>Credits</i>	<i>Spring Quarter</i>	<i>Credits</i>
Risk and Insurance:...	5	Political Science	5	Life Insurance	5
Business Organization ..	5	Office Management	5	Business Statistics	5
Contracts	5	Contracts	5	Agency	5

*At least two years of modern foreign language will be required of all majors in Foreign Trade unless they are specifically exempted from the requirement.

FOURTH YEAR

<i>Autumn Quarter</i>	<i>Credit</i>	<i>Winter Quarter</i>	<i>Credit</i>	<i>Spring Quarter</i>	<i>Credit</i>
Fire Insurance	5	Marine Insurance	5	Real Estate and Casualty Insurance	5
Advanced Economics	5	Corporation Finance	5	Research in Insurance..	5
Social Ethics	5	Business Administration	5	Insurance Law	5

SECRETARIAL WORK

THIRD YEAR

<i>Autumn Quarter</i>	<i>Credits</i>	<i>Winter Quarter</i>	<i>Credits</i>	<i>Spring Quarter</i>	<i>Credits</i>
Political Science	5	Office Management	5	Social and Economic Standards	5
Secretarial Training	5	Electives	10	Electives	10
Business Organization ..	5				

FOURTH YEAR

Advanced Economics	5	Business Administration	5	Electives	15
Research in Secretarial Training	5	Ethics	5		
Electives	5	Electives	5		

COMMERCIAL TEACHING

SECOND YEAR

Second Year Accounting, 10 Credits

THIRD YEAR

<i>Autumn Quarter</i>	<i>Credits</i>	<i>Winter Quarter</i>	<i>Credits</i>	<i>Spring Quarter</i>	<i>Credits</i>
Political Science	5	Office Management	5	Business Organization..	5
Principles of Education..	5	Electives	10	Business Statistics	5
Secretarial Training	5			Electives	5

FOURTH YEAR

Social Ethics	5	Advanced Economics	5	Commercial Teacher's Course	5
Electives	10	Electives	10	Practice Teaching	5
				Electives	5

GENERAL INFORMATION

Textbooks—Syllabus Fees.—Many courses in the College of Business Administration require a textbook, in a few instances more. The faculty aims to keep the textbook expense as low as is consistent with a high standard of class work.

Syllabus or consultation fees are asked in all except research courses. The service rendered in either case is necessary and valuable. With the exception of courses in accounting this fee has been fixed at \$1.50 a course. A fee of \$10 will be asked for any one quarter of instruction in shorthand or type-writing, as these are not a part of the regular curriculum and must finance themselves.

Library Facilities.—The college is placing in the library a large number of supplementary books. For many years government reports, containing a vast amount of material for the student of business, have been filed in the library. Most of the domestic journals in economics and commerce, as well as many foreign ones are received by the college. Each student is expected to make use of the material and report from time to time on current topics of interest.

Student Organizations.—Three professional societies with national affiliations have been established at the College of Business Administration. Beta Gamma Sigma and Alpha Kappa Psi are professional fraternities for men which at present count chapters in many eastern institutions. Membership

is based upon high scholarship. Their aim is to further serious study of business problems. Phi Sigma Chi is a similar organization among the women majoring in business administration. Its purpose is not social, but professional, and membership is restricted to candidates for the B.B.A. degree. A number of prominent business women in Seattle and eastern cities are honorary members. The parent chapter of Pan Xenia, an honor society for majors in foreign trade, was founded two years ago at the University of Washington and bids fair to play an important part in the future of our foreign trade department.

Required Military Science and Physical Education.—The University requirements in military science, physical education and hygiene are satisfied as follows:

Men students.—Freshmen and sophomores. five hours of military science per week.

Women students.—Physical education, five times per week for two years.

Correspondence.—Inquiries in regard to the College of Business Administration may be addressed to the dean of the college. All correspondence regarding admission should be sent to the registrar of the University.

Contact with Actual Business.—The business men of the state and especially of the city of Seattle, are cooperating in a most genuine way with the College of Business Administration. Students are encouraged to avail themselves of the many opportunities to do part-time work in local concerns along their chosen lines.

In addition to part-time employment an alternating quarter system of office practice and academic work has been established in the division of maritime commerce. The office practice work is made a definite part of the training. Students are referred to the Maritime Commerce bulletin for further information.

During the senior year, or during a year of graduate work, students specializing in marketing, merchandising, or advertising are given the opportunity to spend alternate quarters in actual business under the immediate supervision of a field director. This plan involves either attendance at summer school or working under supervision during the summer between the junior and senior year. These apprenticeships are made possible by the active cooperation of Seattle and Tacoma business houses. They give the student the benefit of a favorable introduction to the best business practice, and also give him this introduction while he is still in college. His theories may be vitalized by supervision of department heads in the business and the teacher of theory in college discussing with him the application of theory to actual business as the student finds it.

This apprenticeship system is to be extended until it includes students in all of the departments of the College. Chinese students of the college of Business Administration are placed in Seattle business houses, either already engaged in trade with the Orient or contemplating entering that field. The China Club of Seattle has shown its usual fine desire to cooperate with the University, in securing twenty or more such apprenticeships. Much benefit is expected to accrue both to the Chinese students who are initiated into actual American business methods as well as to the firms which will now receive advice as to the needs of the market in China and will later have native representatives in China familiar with their goods, methods, and business standing.

Advisory Boards.—The College of Business Administration has formed advisory boards of business men throughout the state for foreign trade, money and banking, merchant marine management, and insurance. Other board for transportation, employment management and executive management, sales

management, accounting, commercial teaching, secretarial training and merchandising are being formed. The purpose is to create a direct cooperation between education and industry, principle and practice.

The Students' Advisory Council.—The B.A. Council, organized in the autumn quarter of 1919 by the students of the College, is a representative body having as its members three officers, two representatives from each of the three upper undergraduates classes, one representative from the freshman class, and one from the graduate school. It functions in an advisory capacity on matters relating to standard of scholarship, student esprit-de-corps cooperation between the faculty and the student body on other matters which are brought to its attention by the faculty or the student body. The regular Business Administration assemblies are organized and conducted under the direction of the Council.

Cases of student discipline are investigated and reviewed, and the council renders service as a court of appeals.

The mentor system is the conception of the Council. The mentor plan provides for the appointment of a group of senior and graduate students to meet the freshmen of the College at a certain appointed time in three conferences during the quarter. It is the Big Brother and Sister movement made concrete. The mentors take the responsibility of seeing that every freshman student in his or her group gets the largest possible benefit out of his College life.

International Relations.—Plans are now being completed to establish exchange scholarships with China and with some of the South American republics. The opportunities which are thus afforded for American students to study abroad and for foreign students to gain a better understanding of American life and thought will be of a great educational value.

Fellowships.—The college is now in a position to grant several fellowships with opportunity for assisting in the instruction. Address Dean of the College of Administration.

Outside Lectures.—The College of Business Administration to supplement as far as possible the work given with practical lectures and discussions by business men. Many of the leading business men of Seattle and the state have delivered lectures in their special fields to classes.

COURSES

For description of courses, see Departments of Instruction, printed elsewhere in this catalogue. (See Index).

SCHOOL OF JOURNALISM

THE FACULTY

HENRY SUZZALLO, Ph.D. (Columbia), LL.D. (California).....	PRESIDENT
JOHN THOMAS CONDON, LL.M. (Northwestern).....	DEAN OF FACULTIES
MATTHEW LYLE SPENCER, Ph.D. (Chicago).....	Professor of Journalism; DIRECTOR
FRED WASHINGTON KENNEDY	Assistant Professor of Journalism; DIRECTOR of the Journalism Laboratories
ROBERT WILLIAM JONES, A.B., LL.B. (Missouri), A.M. (South Dakota).....	Assistant Professor of Journalism
MAURICE HICKLIN, A.B., B.J. (Missouri).....	Instructor in Journalism
GEORGE BERNARD AETEL.....	Student Assistant
*EVERHARDT ARMSTRONG, B.S. (Delaware).....	Associate in Journalism
NAIDA LOUISE CURTIS, B.S., (Columbia).....	Secretary to the Director

EDMOND STEPHEN MEANY, M.L. (Wisconsin).....	Professor of History
WILLIAM SAVERY, Ph.D. (Harvard).....	Professor of Philosophy
PIERRE JOSEPH FREIN, Ph.D. (Johns Hopkins).....	Professor of Romance Languages
STEVENSON SMITH, Ph.D. (Pennsylvania)	Professor of Psychology
LESLIE JAMES AYER, J.D. (Chicago).....	Professor of Law
FRED CARLETON AYER, Ph.D. (Chicago).....	Professor of Education
WILLIAM DANIEL MORIARTY, Ph.D. (Michigan), Associate Professor of Business Administration	
ROBERT MAX GARRETT, Ph.D. (Munich).....	Assistant Professor of English
AMBROSE PATTERSON.....	Associate in Fine Arts
FRANK H. HAMACK.....	Assistant in Business Administration

THE SCHOOL AND ITS EQUIPMENT

The first courses in journalism in the University of Washington were given in 1907. A department of journalism was established in 1909. In March, 1918, the department was formally made a school.

The professional courses in the School of Journalism and those prescribed in the colleges of Liberal Arts and Science are planned with two aims in view—to offer instruction and practice in all important details of newspaper work, and to provide such studies as are best adapted to give the broad training necessary for successful pursuit of journalism as a profession. In the first the courses include reporting, copy reading, editorial writing, advertising, cartooning, trade journalism, the mechanics of printing and publishing, and the practical work of the business and administrative offices. In the second are history, economics, political science, sociology, philosophy, psychology, language, literature, and similar subjects necessary in developing the broader scholarship indispensable in modern journalism.

This double ideal of the School of Journalism curriculum has justified itself in the increasing demands of Pacific coast editors for University graduates. Requests to date have exceeded the supply to such an extent that the School has been compelled to recommend students who have not completed their training. Ultimately the School hopes to meet the demand with graduates only.

*Spring Quarter, 1922

Equipment.—Journalism and printing take up the entire first floor of Commerce Hall, 208 x 70 feet, occupied first in September, 1917. On this floor are the class rooms, the journalism library and reading room, the faculty offices, the University Press, and all the mechanical equipment for teaching practical journalism. The University Press does practically all the printing required on the campus.

Frederick A. Churchill Junior Memorial Library.—In March, 1918, a separate journalism library and reading room was opened, known as the Frederick A. Churchill Junior Memorial Library, in memory of a brilliant student of the School who died in 1916 while doing newspaper work in New York. The Memorial Library contains carefully selected books and periodicals relating to printing, advertising, current events, short story, and all phases of the editorial side of the newspaper.

Journalism "Morgue."—In the Memorial Library is a journalism "morgue," for newspaper and periodical clippings on current topics classified for instant reference. This contains biography, book reviews, and dramatic criticism, besides a continuous chronicle of events.

Student Publications.—The editorial and business offices of *The University of Washington Daily*, *Sun Dodger*, *Columns*, and *Tyee* are on the first floor of Commerce Hall. Ownership of *The Daily* and *Tyee* is vested in the student body. Ownership and control of *The Columns* and *Sun Dodger* are held by corporations of students. All of these are supervised by the School of Journalism, the staff members of each being recruited mainly from the School. All offer opportunities for practical experience in magazine and newspaper work. Places on the editorial and business staffs of each, awarded for the most part on a basis of literary and executive ability, are open to all students in the School of Journalism. Opportunity for wide experience in reporting, copy reading, editorial writing, and advertising is offered on *The University of Washington Daily*, published as a four to six-page paper by the students.

Journalistic Clubs.—Three national organizations are maintained by students in the School of Journalism. Junior and senior men have a chapter of Sigma Delta Chi, one of the two national journalistic fraternities. Junior and senior women maintain a chapter of Theta Sigma Phi, the national journalistic sorority founded at the University of Washington in 1910. Members of the *Sun Dodger* staff have also a chapter of Hammer and Coffin, the national comic-magazine fraternity.

Opportunity for Self-Help.—The director of the School of Journalism has frequent calls from business managers and publishers for students with some experience to do part time work in advertising, publicity, and reporting. All the local newspapers and many of the more important dailies in neighboring cities maintain special reporters and correspondents at the University. Remuneration for this work ranges up to \$60 a month, according to the service given. Promise of employment, however, cannot be made in advance. Positions usually are given those on the ground who are able to show by actual experience that they can do the work required.

Admission.—On the successful completion of 90 plus 10 credits of prescribed and elective work at the University of Washington, or an equivalent amount from another institution of accredited standing, students are granted the junior certificate, which admits to the School of Journalism. (See pages 70-71).

Fees.—In certain courses in journalism laboratory fees are charged. These go toward purchase of textbooks, student materials, community typewriters—of which the School has nineteen—and toward subscriptions for newspapers and periodicals, of which the School takes forty or fifty annually, in addition to a large number of weeklies that come to the director's desk on exchange. The number of courses requiring fees varies from year to year. In 1922-23 the maximum laboratory fees in journalism, in addition to the regular University fees, will not be more than \$2.50 a quarter for any student, regardless of the number of courses taken.

Pre-Journalism Majors.—The director of the School of Journalism is the advisor for all students in journalism from the beginning of the freshman year. Registration of pre-journalism majors at the beginning of each quarter is held in the director's office. To him should be taken questions about coordinating courses in other schools and any matters touching the scholastic work of journalism majors.

Journalism Curriculum.—From the beginning of the freshman year a specific curriculum of studies (see page 117) is required of students expecting to major in journalism. Courses in news writing, the country newspaper, and elements of publishing are open to students of sophomore rank. Entrance to the School of Journalism is granted on the ability shown by the individual in these courses to do newspaper work successfully. Formal admission is not permitted until the junior year.

Shorthand and Typewriting.—All written work in the School of Journalism must be done on a typewriter. Both shorthand and typewriting are required for graduation. Prospective students may save themselves much time, however, by learning shorthand and typing before entering the University. Tests in each are given quarterly. Those passing the tests successfully are excused from the University courses.

Graduation.—The curriculum of the School of Journalism leads to the degree of bachelor of arts in journalism, for which 180 credits must be obtained, plus 10 hours in physical training or military science. Sixty of these credits must be in journalism. And a minimum of 90 plus 10 hours must have been earned before the student is formally registered in the School of Journalism. An oral examination before the journalism faculty is required of seniors not less than two weeks before the end of the quarter in which they expect to graduate.

Graduate Study.—Advanced courses in journalism, history, economics, political science, sociology, and English are offered students wishing to take graduate study in preparation for newspaper work or teaching journalism. A wide demand exists in high schools, colleges, and universities for instructors adequately trained to teach journalism. The University library contains a large collection of bound newspapers and magazines and furnishes unusual opportunity for a historical study of American journalism. Special provision is made for directing the work of graduate students interested in historical, political, psychological, or language studies in journalism. The courses required are determined by the nature and amount of undergraduate work the candidate has done in journalism and the phase of it in which he wishes to specialize, such as advertising, the business office, trade journalism, or the purely editorial field. A thesis constitutes one of the requirements. On completion of the requisite number of hours, the degree of master of arts in journalism is granted by the University.

Specialization.—Students looking forward to specialized branches of journalistic work, such as trade or class journalism, advertising, or the business office, will find the School of Journalism equipped to aid them. While emphasis is laid on the editorial side of the newspaper field, provision is made in the curriculum for practical training in other departments as well.

CURRICULUM

Requirements for the degree of bachelor of arts in journalism are scheduled below. The courses are arranged in the order in which they normally follow each other. Those with a double dagger are required. Those marked with a single dagger are regarded as essential. Others are suggested electives.

FIRST YEAR¹

Architecture	Credits	History	Credits
10-11-12. Freehand Drawing.....	3	5-6. English Political and Social History.....	10
<i>Economics</i>		<i>Military Science</i>	
X 1. †General Economics.....	5	X 1-2-3 †Practical, Military Science....	5
X 6. Business Correspondence.....	5	<i>Political Science</i>	
†Typewriting.....		X 1. †Elements of Government.....	5
<i>English</i>		10. †American Government.....	3
X 1. †Composition.....	5	11. †State Government.....	3
X 64-65. †Great English Writers.....	10	<i>Science</i>	15
<i>Foreign Language</i>	15	<i>Sociology</i>	
		1. †Introduction to Sociology.....	5

SECOND YEAR

Economics	Credits	Painting	Credits
X 11-12. Elementary Accounting.....	10	56-57-58. Illustration.....	9
†Shorthand.....		<i>Philosophy</i>	
<i>English</i>		X 5. †Introduction to Logic.....	5
67-68-69. †Great American Writers..	6	<i>Political Science</i>	
<i>Foreign Language</i>	10	52. †Political Parties.....	3
<i>History</i>		60. Public Finance.....	5
57-58. †History of the United States 10		62. Municipal Finance.....	3
71-72-73. Ancient History.....	9	<i>Psychology</i>	5
<i>Journalism</i>		X 1. †General Psychology.....	5
X 51. †News-Writing.....	5	<i>Science</i>	15
X 75. †Elements of Publishing.....	5	<i>Sociology</i>	
<i>Military Science</i>		51. Growth of Culture.....	5
X 51-52-53. †Practical Military Science	5	55. Community Organization.....	3
<i>Music</i>		56. The Family.....	3
1-2-3. Music Appreciation.....	6	60. Group Behavior.....	3
4-5-6. History of Music.....	6	63. †Municipal Sociology.....	3

THIRD YEAR

Architecture	Credits	History	Credits
101-102-103. History of Architecture	6	130. Europe, 1814-1870.....	3
<i>Astronomy</i>		131. Europe since 1870.....	5
1. Introduction to Astronomy.....	1	147. Civil War Period.....	3
<i>Economics</i>		148. Reconstruction Period.....	3
X 54. †Business Law.....	3	149. National Development.....	5
106. Economics of Markets.....	5	<i>Journalism</i>	
118. Business Statistics.....	5	61. †Country Newspaper.....	2
138. Sales Management.....	5	90. †Current Events.....	1
<i>English</i>		101. †Reporting.....	5
98. †The Bible as Literature.....	3	104. †Newspaper Administration.....	2
104-105-106 Contemporary Literature	9	105. The Sporting Page.....	2
70-71. †Shakespeare.....	6	109. Literary and Dramatic Reviewing.....	2
147-148-149. The English Novel.....	9	120. †Copy Reading.....	5
<i>Foreign Language</i>	10	130. †Fundamentals of Advertising..	5
<i>Greek</i>			
X 11. †Greek Civilization ²	5		

1. Students who have not had science in high school are required to take ten hours of chemistry or physics and ten of botany or geology or zoology in the University. Students entering without foreign language are required to take twenty hours of a modern foreign language in the University without credit.

2. Students who have taken, or who plan to take, three or more years of ancient language, may omit this requirement.

<i>Journalism</i>	<i>Credits</i>		<i>Credits</i>
181. †Display Advertising	5	<i>Political Science</i>	
183. Advertising Typography	5	100. †Municipal Government	3
136. †Comparative Journalism	2	102. Municipal Problems	3
138. †History of Journalism	5	<i>Psychology</i>	
140. †Business Office	5	111. History of Psychology	3
<i>Latin</i>		126. Abnormal Psychology	5
11. †Roman Civilization ²	5	<i>Science</i>	15
<i>Philosophy</i>		<i>Sociology</i>	
101-102-103. History of Philosophy..	9	104. *American Social Conditions....	2
114-115-116. History of Religion....	9	130. The Social Survey	3

FOURTH YEAR

<i>Architecture</i>	<i>Credits</i>	<i>History</i>	<i>Credits</i>
157-158-159. Freehand Drawing.....	9	163-164-165. †Northwestern History..	6
<i>Economics</i>		<i>Journalism</i>	
121. Corporation Finance	5	150. †Editorial Writing	5
122. Railroad Administration	5	180. Trade Journalism	5
162. American Labor Problems.....	5	170. Magazine and Feature Writing..	5
162. European Labor Problems.....	5	173. The Short Story.....	3
198. Research in Marketing and Ad- vertising	5	174-175. Short Story Writing.....	6
<i>English</i>		188. News Writing for Teachers.....	2
171-172-173. Romantic Poets	9	250. Research in Journalism.....	5
174-175-176. †Nineteenth Century Eng- lish Poetry	9	<i>Political Science</i>	
183-184-185. General Literature	9	110. International Law	3
<i>Foreign Language</i>	10	111. International Politics	3
<i>History</i>		<i>Science</i>	15
153. †The Pacific Rim.....	3	<i>Sociology</i>	
		155. Poverty and Philanthropy.....	5
		156. Criminology	5

2. Students who have taken, or who plan to take, three or more years of ancient language, may omit this requirement.

Advertising.—Students expecting to make advertising a profession should elect the following courses from those scheduled above: Architecture 10-11-12 (Freehand Drawing); Economics 106 (Economics of Markets); Economics 133 (Sales Management); Economics 180 (Trade of the Americas); Journalism 130 (Fundamentals of Advertising); Journalism 131 (Display Advertising); Journalism 133 (Advertising Typography); Journalism 160 (Trade Journalism); Painting and Design 56-57-58 (Illustration). All these will be found of particular value in advertising work.

COURSES

For description of courses, see Departments of Instruction, printed elsewhere in this catalogue. (See Index).

COLLEGE OF ENGINEERING

THE FACULTY

HENRY SUZZALLO, Ph.D. (Columbia), LL.D. (California), PRESIDENT
 JOHN THOMAS CONDON, LL.M. (Northwestern), DEAN OF FACULTIES
 CARL EDWARD MAGNUSSON, Ph.D. (Wisconsin), E.E. (Minnesota),
 .. Professor of Electrical Engineering; Director of Engineering Experiment Station; DEAN
 EVERETT OWEN EASTWOOD, C.E., M.A. (Virginia), S.B. (Massachusetts Institute of Tech-
 nology), Professor of Mechanical Engineering
 CHARLES CHUBB MOORE, M.S., C.E. (Lafayette), M.C.E. (Cornell),
 Professor of Civil Engineering
 WILLIAM FRANKLIN ALLISON, B.S., C.E. (Purdue), C.E. (Cornell)
 Professor of Municipal and Highway Engineering
 HENRY KREITZER BRINSON, Ph.D. (Columbia), Professor of Chemical Engineering
 GEORGE SAMUEL WILSON, B.S. (Nebraska), .. Associate Professor of Mechanical Engineering
 CHARLES WILLIAM HARRIS, C.E. (Cornell), Associate Professor of Civil Engineering
 EDGAR ALLEN LOEW, B.S., E.E. (Wisconsin), ..Associate Professor of Electrical Engineering
 ARTHUR MELVIN WINSLOW, Ph.B. (Brown), B.S. (Massachusetts Institute of Technology),
 Associate Professor of Mechanical Engineering
 HARRY RUREY, B.S. (C.E.), (Illinois),.....Associate Professor of Civil Engineering
 FREDERICK KURT KIRSTEN, B.S., E.E. (Washington).....
Associate Professor of Electrical Engineering
 *LESLIE FOREST CURTIS, B.S. (Tufts), M.S., E.E. (Washington).....
 Assistant Professor of Electrical Engineering
 IRA LEONARD COLLIER, B.S., C.E. (Washington), ...Assistant Professor of Civil Engineering
 CHARLES CULBERTSON MAY, B.S., C.E. (Washington), Assistant Professor of Civil Engineering
 JOHN CHARLES RATHBUN, A.M., B.S., C.E. (Washington),
 Assistant Professor of Civil Engineering
 FRED FALCONER WELD, C.E. (Pennsylvania State College), ...Associate in Civil Engineering
 CLARENCE LESTER WHITE, C.E. (Iowa), Instructor in Civil Engineering
 GORDON RUSSELL SHUCK, E.E. (Minnesota), Instructor in Electrical Engineering
 JAMES BAKER HAMILTON, Instructor in Civil Engineering
 HARRY J. MCINTYRE, B.S. (M.E.) (Washington), ...Instructor in Mechanical Engineering
 EDMOND CLARENCE MILLER, B.S. (E.E.) (Washington),Instructor in Civil Engineering
 ROBERT QUIKOTE BROWN, B.S. (E.E.) (Washington), Instructor in Civil Engineering
 CHRIS GRENSIDE DOBSON, E.M. (Montana School of Mines), Instructor in Civil Engineering
 FOREST CHARLES DANA, B.S. (C.E.) (Washington),Instructor in Civil Engineering
 ALBERT KALIN, B.S. (E.E.) (Washington).....Instructor in Electrical Engineering
 BYRON TOWNE MCMLIN, B.S. (Oregon Agricultural College),
Instructor in Mechanical Engineering
 ROBERT H. G. EDMONDS, B.S. (Whitman),Instructor in Mechanical Engineering
 GEORGE LISLE HOARD, B.S. (E.E.) (Washington), ...Instructor in Electrical Engineering
 JOHN HOWARD THOMPSON, B.S. in Metallurgical Engineering (Washington),
Acting Instructor in Civil Engineering
 JACK RODERICK TOLMEY, B.S. (E.E.) (Washington), ..Instructor in Electrical Engineering
 ELGIN ROSCOE WILCOX, MetE. (Washington).....Instructor in Civil Engineering
 A. TRUESDELL, B.S. (C.E.) (Washington),Instructor in Civil Engineering
 GEORGE S. SMITH, B.S. (E.E.) (Washington),Instructor in Electrical Engineering
 EDWARD LEONARD STRANBERG, B.S. (C.E.) (Washington), ...Associate in Civil Engineering
 CHAUNCEY WERNICKE, B.S. (C.E.) (Washington),Associate in Civil Engineering
Instructor in Engineering Shops

FREDERICK MORGAN PADELFORD, Ph.D. (Yale),
Professor of English; Dean of the Graduate School
 GEORGE MCPHAIL SMITH, Ph.D. (Freiburg).....Professor of Inorganic Chemistry
 ERIC TEMPLE BELL, Ph.D. (Columbia), Professor of Mathematics
 JOHN WEINZIERL, Ph.D. (Wisconsin), Dr.P.H. (Harvard).....Professor of Bacteriology
 LESLIE JAMES AYER, B.S. (Upper Iowa), J.D. (Chicago),Professor of Law
 JOSEPH DANIELS, S.B. (Massachusetts Institute of Technology), M.S. (Lehigh),
Associate Professor of Mining Engineering and Metallurgy
 HENRY LOUIS BRAKEL, Ph.D. (Cornell),Associate Professor of Engineering Physics
 GEORGE IRVING GAVETT, B.S. (C.E.) (Michigan),Assistant Professor of Mathematics
 LEWIS IRVING NEIKIRK, Ph.D. (Pennsylvania),Assistant Professor of Mathematics
 SAMUEL HERBERT ANDERSON, Ph.D. (Illinois),Assistant Professor of Physics

*Leave of absence

GENERAL INFORMATION

Curricula and Degrees.—The College of Engineering offers two four-year curricula in each of the departments of chemical, civil, electrical and mechanical engineering. One of these leads to the degree of bachelor of science in the respective branches of engineering, as B.S. in civil engineering. The other is offered to meet the need for a more general training than is given in the regular four-year curricula. This curriculum leads to the degree of bachelor of science (B.S.), and should be followed by a year of graduate work which, under the university regulations for advanced degrees, leads to the degree of master of science (M.S.) in the respective lines.

In arranging the curricula the aim has been: To keep the work fundamental in character; to introduce the student into an engineering atmosphere as soon as possible; to direct the methods of work and study and to provide for a certain amount of flexibility in the selection of subjects.

A distinctive feature is the engineering problems, (C.E.) (11-12-13) consisting chiefly of problems taken from engineering work, and analyzed from an engineering standpoint.

The freshman work in the departments of chemical, civil, electrical and mechanical engineering, is identical, making it possible for a student to delay the definite choice until the beginning of the sophomore year.

All freshman and sophomore work is repeated each quarter. Additional courses will be repeated whenever practicable, provided the demand is sufficient to warrant full sections, but not for less than six students. The plan provides a possibility for taking desirable elective courses, or for engaging in practical work for one or more quarters before completing the curriculum.

Degree with Honors.—A degree with honors in engineering may be conferred upon any student of the College of Engineering who, upon recommendation of the engineering faculty of the honors committee and upon vote of the university faculty, may be declared worthy of unusual distinction.

Advanced Degrees.—The degrees of master of science in civil engineering (M.S. in C.E.), master of science in electrical engineering (M.S. in E.E.), master of science in mechanical engineering (M.S. in M.E.), and master of science in chemical engineering (M.S. in Ch.E.), respectively, will be conferred upon graduates of this college, or other engineering colleges of recognized standing, who complete a year (45 credit hours) of graduate work, including a satisfactory thesis, with the grade of A or B. The candidate must comply with the regulations of the Graduate School and pass a formal examination open to all members of the faculty. The selection of work for this degree must, in each case, be approved by the head of the department in which the student majors.

The professional degrees, chemical engineer (Ch.E.), civil engineer (C.E.), electrical engineer (E.E.), and mechanical engineer (M.E.), will be conferred in three years on graduates of this college holding the degree (B.S.) in their respective lines, who give evidence of having been engaged continuously in acceptable engineering work and who present satisfactory theses.

Thesis.—The graduating thesis will consist of research or design in some branch of engineering, or the review of some existing construction. The subject must be approved by the professor in charge of the department under which it is classified.

Engineering Laboratories.—For description of laboratories see pages 29-36.

REQUIREMENTS FOR ADMISSION

Full information regarding requirements for admission, registration, and expenses may be found on pages 40, 48, 49.

Students entering the College of Engineering must have a *working knowledge* of the fundamentals of arithmetic, algebra and geometry. It is therefore desirable for the student to review his preparatory mathematics *just before entering college*. By such a step much time will be saved and the work of the College will be rendered more valuable to him.

CURRICULA OF THE COLLEGE OF ENGINEERING

FOR THE FRESHMAN YEAR IN ALL DEPARTMENTS

FRESHMAN

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Alg. Math. 51	4	Trig. Math. 52	4	Anal. Geom. Math. 53 ..	4
Engr. Prob. C.E. 11	3	Engr. Prob. C.E. 12	3	Engr. Prob. C.E. 13	3
Gen. Chem. 1 or 21	5	Gen. Chem. 2 or 22	5	Gen. Chem. 13 23	5
Drawing, C.E. 1	3	Drawing, C.E. 2	3	Surveying, C.E. 21	3
Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%
	16%		16%		16%

IN CHEMICAL ENGINEERING

Leading to the degree of Bachelor of Science in
Chemical Engineering

FRESHMAN

The same for all curricula. See above.

SOPHOMORE

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Physics 97	5	Physics 98	5	Physics 99	5
Qual. Chem. 101	5	Quant. Chem. 112	5	Quant. Chem. 113	5
Mechanism—M.E. 81 ..	3	Steam Eng.—M.E. 82 ..	3	Steam Lab.—M.E. 83 ..	3
Dir. Cal.—Math. 61	3	Int. Cal.—Math. 62	3	Chem. Tech. Ch. 120 52 ..	3
Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%
	17%		17%		17%

JUNIOR

Ind. Chem. 121	5	Ind. Chem. 122	5	Ind. Chem. 123	5
English 4	3	Org. Chem. 128 or 132 ..	5	Org. Chem. 129 or 133 ..	5
Mach. Des.—M.E. 91 ..	2	Mach. Des.—M.E. 92 ..	2	Dir. Cur.—E.E. 101 ..	4
Org. Chem. 181 or Ther- mo. & Refrig.—M. E. 183	5	Mechanics—C.E. 131 ..	3	D.C. Lab.—E.E. 102 ..	2
Shop 53	1	Shop 54	1		
	10		10		10

SENIOR

		Op.1	Op.2		Op.1	Op.2
Phys. Chem. 181	5	Phys. Chem. 182 ..	5	Metallurgy 102	5	5
Alt. Cur.—E.E. 121	4	Chem. Eng. 216 ..	5	Thesis	2	
A.C. Lab.—E.E. 122 ..	2	Ind. Seminar Chem. 200 150	2	Chem. 217	5	
Electives	5	Thesis	3	Electives	8	5
		Electives	5			
	16		15 15		15	15

Electives must in all cases be approved by the head of the department.

IN CIVIL ENGINEERING

Leading to the degree of Bachelor of Science in
Civil Engineering

FRESHMAN

The same for all curricula. See page 121.

SOPHOMORE

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Mech.—C.E. 91	3	Mech.—C.E. 92	3	Mech.—C.E. 93	3
St. Eng.—M.E. 82	3	St. Eng. Lab.—M.E. 83 ..	3	Economics	3
Physics 97	5	Physics 98	5	Physics 99	5
R.R. Surv.—C.E. 22 ..	4	Higher Surv.—C.E. 23 ..	4	Field Eng.—C.E. 24 ..	4
Mil. Sci. or Phys. Ed. ..	1½	Mil. Sci. or Phys. Ed. ..	1½	Mil. Sci. or Phys. Ed. ..	1½
	16½		16½		16½

JUNIOR

Hydraulics—C.E. 142 ..	5	Dir. Cur.—E.E. 101 ...	4	Alt. Cur.—E.E. 121 ...	4
Struct. Mat.—C.E. 167 ..	5	D.C. Lab.—E.E. 102 ...	2	A.C. Lab.—E.E. 122 ...	2
Calc.—Math. 61	3	Calc.—Math. 62	3	Highways—C.E. 122 ...	3
Mach. Des.—M.E. 91 ..	2	Mach. Des.—M.E. 92 ...	2	Mach. Des.—M.E. 93 ...	2
		Gas Eng.—M.E. 198 ...	3	English 4	3
		Hyd. Eng.—C.E. 143 ...	3	Electives	3
	15		17		17

SENIOR

Structures—C.E. 134 ...	3	Thesis or electives	5		
Water Sup.—C.E. 158 ...	3	Business Law—B.A. 55 ..	3		
Business Law—B.A. 54 ...	3	Electives	8	Electives	15
Geology 5	5				15
	14		16		15

Electives must in all cases be approved by the head of the department.

IN ELECTRICAL ENGINEERING

Leading to the degree of Bachelor of Science in
Electrical Engineering

FRESHMAN

The same for all curricula. See page 121.

SOPHOMORE

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Physics 97	5	Physics 98	5	Physics 99	5
Diff. Calc.—Math 61 ...	3	Int. Calc.—Math 62 ...	3	Int. Calc.—Math 63 ...	3
Mechanism—M.E. 81 ...	3	El. Steam—M.E. 82 ...	3	Steam Lab.—M.E. 83 ...	3
Mach. Des.—M.E. 91 ...	2	Mach. Des.—M.E. 92 ...	2	Mach. Des.—M.E. 93 ...	2
Shop 53	1	Shop 54	1	Shop 55	1
Mil. Sci. or Phys. Ed. ..	1½	Mil. Sci. or Phys. Ed. ..	1½	Mil. Sci. or Phys. Ed. ..	1½
	15½		15½		15½

JUNIOR

D.C.—E.E. 109	4	D.C.—E.E. 111	4	A.C.—E.E. 161	6
D.C. Lab.—E.E. 110 ...	2	D.C. Lab.—E.E. 112 ...	4	A.C. Lab.—E.E. 162 ...	4
Mechanics—C.E. 181 ...	3	Mechanics—C.E. 182 ...	3	Mechanics—C.E. 183 ...	3
English 4	3	Hydraulics—C.E. 142 ..	5	St. Mat.—M.E. 167 ...	3
Electives	4				
	16		16		16

SENIOR

A.C.—E.E. 163	6	Trans.—E.E. 195, 196 or		Trans.—E.E. 198 or The-	
A.C.—E.E. 164	4	Thesis 186	4	sis 188	2
Physics 114	3	Mach. Des.—E.E. 152 ...	5	Electives	14
Electives	3	Electives	6		
	16		15		16

Electives must in all cases be approved by the head of the department.

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1922-23

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IN MECHANICAL ENGINEERING

Leading to the degree of Bachelor of Science in
Mechanical Engineering

FRESHMAN

The same for all curricula. See page 121.

SOPHOMORE

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Cal.—Math. 61	3	Cal.—Math. 62	3	Cal.—Math. 63	3
Physics 97	5	Physics 98	5	Physics 99	5
Mechanism—M.E. 81	3	El. Steam—M.E. 82	3	Steam Lab.—M.E. 83	3
Mach. Des.—M.E. 91	2	Mach. Des.—M.E. 92	2	Mach. Des.—M.E. 93	2
Shop 53	1	Shop 54	1	Shop 55	1
Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%
	15%		15%		15%

JUNIOR

Dir. Cur.—E.E. 101	4	Alt. Cur.—E.E. 121 ..	4	Hydraulics—C.E. 142 ..	5
Dir. Cur. Lab.—E.E. 102	2	Alt. Cur. Lab.—E.E. 122 ..	2	English 4	3
Exp. Eng.—M.E. 151 ..	3	Exp. Engr.—M.E. 152 ..	3	Exp. Engr.—M.E. 153 ..	3
Eng. & Boll.—M.E. 123 ..	3	Eng. & Boll.—M.E. 124 ..	3	Mechanics—C.E. 133 ..	3
Mechanics—C.E. 131 ..	3	Mechanics—C.E. 132 ..	3	Shop 107	1
Shop 105	1	Shop 106	1		
	16		16		15

SENIOR

Business Law—B.A. 54 ..	3	Gas. Eng.—M.E. 198 ..	3	Power Plants—M.E. 184 ..	3
Thermo. & Ref.—M.E. 183	5	Heat. & Vent.—M.E. 182 ..	3	Steam Turb.—M.E. 179 ..	3
Mach. Des.—M.E. 101 ..	2	Mach. Des.—M.E. 102 ..	2	Mach. Des.—M.E. 103 or 199	3
Electives	6	Eng. Mat.—M.E. 167 ..	3	Thesis 210, or Resear. 211 ..	4
	16	Electives	5	Electives	3
			16		15

Electives must in all cases be approved by the head of the department.

IN NAVAL ARCHITECTURE AND MARINE ENGINEERING

FRESHMAN

The same for all curricula. See page 121.

SOPHOMORE

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Cal.—Math. 61	3	Cal. Math. 62	3	Cal.—Math. 63	3
Physics 97	5	Physics 98	5	Physics 99	5
Mechanism—M.E. 81	3	El. Steam—M.E. 82	3	Steam Lab.—M.E. 83	3
Mach. Des.—M.E. 91	2	Mach. Des.—M.E. 92	2	Mach. Des.—M.E. 93	2
Shop 53	1	Shop 54	1	Shop 55	1
Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%
	15%		15%		15%

JUNIOR

Dir. Cur.—E.E. 101 ..	4	Alt. Cur.—E.E. 121 ..	4	Hydraulics—C.E. 142 ..	5
Dir. Cur. Lab.—E.E. 102 ..	2	Alt. Cur. Lab.—E.E. 122 ..	2	Exp. Eng.—M.E. 153 ..	3
Exp. Eng.—M.E. 151 ..	3	Exp. Engr.—M.E. 152 ..	3	Nav. Arch.—M.E. 187 ..	3
Nav. Arch.—M.E. 185 ..	3	Nav. Arch.—M.E. 186 ..	3	Mechanics—C.E. 133 ..	3
Mechanics—C.E. 131 ..	3	Mechanics—C.E. 132 ..	3	Shop 107	1
Shop 105	1	Shop 106	1		
	16		16		15

SENIOR

Business Law—B.A. 54 ..	3	Gas Eng.—M.E. 198 ..	3	Mar. Eng.—M.E. 190 ..	3
Thermo. & Ref.—M.E. 183	5	Heat. & Vent.—M.E. 182 ..	3	Steam Turb.—M.E. 179 ..	3
Ship Design—M.E. 188 ..	2	Ship Design—M.E. 189 ..	2	Mach. Des.—M.E. 103 ..	3
Electives	6	Eng. Mat.—M.E. 167 ..	3	Thesis 210	4
	16	Electives	5	Electives	3
			16		16

Electives must in all cases be approved by the head of the department.

IN COMMERCIAL ENGINEERING

Leading to the degree of Bachelor of Science

The student must register in the chemical, civil, electrical or mechanical engineering department of the College of Engineering.

Mathematics 51, 52, 53, 61, 62, 63, 13.....	26
Physics 97, 98, 99.....	15
Chemistry 1, 2, 3, or 21, 22, 23.....	15
English 4 (Certificate in English Composition).....	3
Military Science or Physical Education.....	10
Civil Engineering 1, 2, 11, 12, 13, 21, 131, 132.....	24
Electrical Engineering 101, 102, and 121, 122 or 161, 162.....	12
Mechanical Engineering 81, 82, 83, 91, 92, 93.....	15
Business Administration 1 or 2, 11, 12, 54, 55, 167.....	21
Technical Electives (department in which the student is registered)	21
General Electives	25
Total	192

Electives must in all cases be approved by the dean of the College of Engineering.

IN AERONAUTICAL ENGINEERING

Students who desire to major in aeronautical engineering should include the following courses in the technical and general electives of the curriculum for the bachelor of science degree in the College of Engineering. These courses may also be taken as electives in the curricula for the bachelor of science degree in chemical, civil, electrical and mechanical engineering.

101. Aerodynamics.
111. Aerial Propellers.
121. Airplane Design.
141. Airships.
161. Aerial Transportation.

Electives must in all cases be approved by the dean of the College of Engineering.

COURSES

For description of courses, see Departments of Instruction, printed elsewhere in this catalogue. (See Index).

ENGINEERING EXPERIMENT STATION

THE STAFF

HENRY SUZZALLO, Ph.D., (Columbia), LL.D., (California)	PRESIDENT
JOHN THOMAS CONDON, LL.M., (Northwestern),	DEAN OF FACULTIES
CARL EDWARD MAGNUSSON, Ph.D., (Wisconsin), E.E. (Minnesota),	Electrical Engineering
.....	DIRECTOR
HUGO WINKENWERDER, M.F., (Yale),	Forest Products
MILNOR ROBERTS, A.B., (Stanford)	Mining and Metallurgy
HENRY KRETZER BENSON, Ph.D., (Columbia),	Chemical Engineering and Industrial Chemistry
CHARLES WILLIAM HARRIS, B.S., (C.E.) Washington, C.E. (Cornell),	Civil Engineering
EVERETT OWEN EASTWOOD, C.E. A.M. (Virginia), S.B. (Massachusetts Institute of Technology),	Mechanical Engineering
FREDERICK ARTHUR OSBORN, Ph.D., (Michigan),	Physics Standard and Tests

For description of the work of the Experiment Station see page 37.

COLLEGE OF FINE ARTS

THE FACULTY

HENRY SUZZALLO, Ph.D. (Columbia), LL.D. (California),	PRESIDENT
JOHN THOMAS CONDON, LL.M. (Northwestern),	DEAN OF FACULTIES
IRVING MACKAY GLEN, A.M. (Oregon), Professor of Music,	DEAN
WILLIAM PIERCE GORSUCH, A.B. (Knox),	Professor of Dramatic Art
CARL FRELINGHUYSEN GOULD, A.B. (Harvard),	Associate Professor of Architecture
*WALTER ISAACS, B.S., (James Milliken),	Associate Professor of Fine Arts
FRANCES DICKBY, A.M. (Columbia),	Assistant Professor of Music
MORITZ ROSEN, Graduate (Warsaw Conservatory),	Assistant Professor of Music
ALBERT FRANZ VENINO, (New York College, Stuttgart Conservatory, Leschetizky),	Assistant Professor of Music
CARL PAIGE WOOD, A.M. (Harvard),	Assistant Professor of Music
ROBERT FULTON MCCLELLAND, (Massachusetts Institute of Technology),	Instructor in Architecture.
GEORGE C. KROENER, (Leipzig),	Instructor in Music
HAROLD OGDEN SKXSMITH, (Armour Institute), (Chicago Art Institute).....	Instructor in Architecture
MRS. LOUISE VAN OGLE,	Instructor in Music
ALBERT POSTER ADAMS,	Instructor in Music
*ANNETTE EDENS, (New York School of Fine and Applied Arts, Columbia),	Instructor in Drawing
EILENE FRENCH, B.Mus. (Washington), M.A. (Columbia),	Instructor in Music
AMBROSE PATTERSON,	Associate in Fine Arts
MRS. EUGENIA WORMAN,	Associate in Fine Arts
JAMES A. WEHN,	Associate in Modeling and Sculpture
ADA TILLEY, B.Mus. (Simpson),.....	Instructor in Music
GLENN HUGHES, A.M. (Washington),	Instructor in Dramatic Art
ELEANOR CAMPBELL,	Instructor in Design
HELEN RHODES, (Columbia),	Acting Instructor in Drawing
ELLA JANE SARGINSON, A.M. (Columbia),	Instructor in Fine Arts
ANNA ELFRIDA STORM,	Assistant in Design
HELEN FERRYMAN, B.Mus. (Washington),	Assistant in Music
LOUISE DOW BENTON, B.Mus. (Washington),	Assistant in Music
FLORENCE BERGH WILSON, B.Mus. (Washington),	Assistant in Music
CLARA CATHERINE BURCH, A.M. (Washington),	Assistant in Music
<hr/>	
EVERETT OWEN EASTWOOD, C.E., A.M. (Virginia), S.B. (Massachusetts Institute of Technology),	Professor of Mechanical Engineering
CHARLES LEONARD PHILLIPS, Colonel, C.A.C., U.S.A. (U.S. Military Academy), A.B. (Colby), C.E. (Maine),	Professor of Military Science and Tactics
DAVID CONNOLLY HALL, M.D. (Chicago), University Health Officer and Professor of Hygiene	
CHARLES CHURCH MORE, C.E., M.S. (Lafayette), M.C.E. (Cornell),	Professor of Civil Engineering
THOMAS K. SIDET, Ph.D. (Chicago),	Associate Professor of Latin and Greek
CHARLES GOGGIO, Ph.D. (Wisconsin).....	Associate Professor of Romance Languages
ROBERT MAX GARRETT, Ph.D. (Munich),	Associate Professor of English
ERIC TEMPLE BELL, Ph.D. (Columbia),	Associate Professor of Mathematics
HARVEY BRUCE DENSMORE, A.B. (Oxford),	Assistant Professor of Greek
GINO ARTURO RATTI, Ph.D. (Grenoble),	Assistant Professor of French
ERNEST OTTO ECKELMAN, Ph.D. (Heidelberg),	Assistant Professor of German
SAMUEL HERBERT ANDERSON, Ph.D. (Illinois),	Assistant Professor of Physics
MARY EMMA GROSS, A.M. (Teachers' College, Columbia),	Director of Physical Education for Women
CURT JOHN DUCASSE, Ph.D. (Harvard),	Assistant Professor of Philosophy
LESLIE SPIER, Ph.D. (Columbia),	Assistant Professor of Anthropology
ALEXANDER CRIPPEN ROBERTS, A.M. (Washington).....	Associate in Education

*Absent on leave, 1922-1923.

GENERAL STATEMENT

This college comprises the departments of architecture, music, painting, sculpture, design, and dramatic art. In the department of architecture a curriculum of four years is offered leading to the degree of bachelor of architecture; in music there are curricula of four years leading to the degree of bachelor of music, with major in applied music, composition, or public school music, and to the degree of bachelor of arts in music. Curricula of four years are offered leading to the degree of bachelor of fine arts, with a major in painting and design, interior decoration, public school drawing, or music and drawing. Two-year curricula lead to certificates of proficiency for supervisors of art and music. The department of dramatic art offers major courses in the study of the drama and dramatic interpretation.

Normal Diploma—Graduates in music may receive in addition to their bachelor of music degree a normal diploma, entitling them to teach music in the public schools, by meeting the requirements of the department of education and such departmental requirements as the department of music may see fit to institute. This will necessitate a total of at least 192 credits.

Certificates of Proficiency for Music Supervisors.—These may be issued by the head of this college to students who may not have completed the requirements for the degree, but who have satisfactorily completed certain stipulated courses at the discretion of the department. These courses include history of music, elementary harmony, public school music, ear training and melody writing, school music and music education, vocal music, education and drawing or some other approved elective. Only students of advanced standing can complete this course in less than two years.

Methods of Instruction.—The plan of study recognizes that architecture is essentially a fine art, the practice of which must be based upon a thorough knowledge of construction and of the practical requirements of buildings. Technical training which has not recognized the importance of the knowledge of the principles of design has failed notably to raise the skilled draftsman to the position of an architect.

The University recognizes that its function in teaching the profession is to equip men to obtain not only a general knowledge of the subject of architecture, but that they may become able to cope with the problems that occur in actual practice.

It must be recognized, however, that knowledge of design is the most essential subject in a course preparing students for the profession of architecture.

REQUIREMENTS FOR ADMISSION

Full information regarding requirements for admission, registration, and expenses may be found on pages 40, 48, 49.

It is advisable that students intending to enter the course in architecture present credits for preparatory work in trigonometry and freehand drawing. Beginning in 1921 two years of a foreign language will be included among specific entrance requirements, to be made up in the University without credit, if they have not been taken in high school.

Students intending to enter any of the music courses leading to a degree must satisfy the head of the department that they have completed in addition to the usual high school preparation the equivalent of four years' work in piano, showing that they are familiar with the rudiments and can play well scales and chords in all positions, the smaller sonatas of Haydn, Mozart and Beethoven, and easier compositions representative of the best literature for the piano.

CURRICULA

FOR THE BACHELOR OF MUSIC DEGREE WITH A MAJOR IN APPLIED MUSIC
(Piano, Violin, Voice, Violoncello, Organ)

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Music 1 (Apprec.)	2	Music 2	2	Music 3	2
4 (History)	2	5	2	6	2
7 (Sight Singing)	2	8	2	9	2
14 (Ear Training)	2	15	2	16	2
18 (Applied)	3	19	3	20	3
10 (Chorus) elect.	1	11 or elective	1	12 or elective	1
English Comp.	3	English Comp.	3	English Comp.	3
Phys. Ed. or Mil. Sci. ...	1½	Phys. Ed. or Mil. Sci. ...	1½	Phys. Ed. or Mil. Sci. ...	1½
	16½		16½		16½

SECOND YEAR

Music 10 or elective ..	1	‡Music 11 (or elective) 1	‡Music 12 (or elective) ..	1
68 (Applied)	3	69	70	3
51 (Harmony)	3	52	53	3
Pol. or Soc. Sci.	5	Physics 50	Physics 53 51	5
Foreign Language	5	Foreign Language	Foreign Language	3
Phys. Ed. or Mil. Sci. ...	1½	Phys. Ed. or Mil. Sci. ...	Phys. Ed. or Mil. Sci. ...	1½
	18½		16½	16½

THIRD YEAR

Music 10 (or elective) ..	1	‡Music 11 (or elective) 1	‡Music 12 (or elective) ..	1
118 (Applied)	3	119	120	3
101 (Adv. Harmony)	3	102	103	3
104 (Adv. History)	2	105	106	2
107 (Counterpoint)	2	108	109	2
110 (Instr. Form)	2	111	112	2
Foreign Language	3	Foreign Language	Foreign Language	3
	16		16	16

FOURTH YEAR

Music 10 (or elective) ..	1	‡Music 11 (or elective) 1	‡Music 12 (or elective) ..	1
168 (Applied)	3	169	170	3
157 (Composition)	2	158	159	2
151 (Adv. Appr.)	2	152	153	2
Electives	8	Electives	Philosophy 120 (aesth.) ..	5
	16		Senior Program*	2
				15

FOR THE BACHELOR OF MUSIC DEGREE WITH A MAJOR
IN COMPOSITION

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Music 1 (Apprec.)	2	Music 2	2	Music 3	2
4 (History)	2	5	2	6	2
14 (Ear Training)	2	15	2	16	2
51 (Beg. Harm'y)	3	52	3	53	3
31 (Applied)	3	32	3	33	3
English Comp.	3	English Comp.	3	English Comp.	3
Phys. Ed. or Mil. Sci. ...	1½	Phys. Ed. or Mil. Sci. ...	1½	Phys. Ed. or Mil. Sci. ...	1½
	16½		16½		16½

*As a substitute for the senior program, the student may have the option of offering an approved original composition or work in an elective course approved by the advisor and the dean.

SECOND YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Music 10 (Chor.) or elect 1		Music 11 (Chor.) or elect 1		Music 12 (Chor.) or elect 1	
101 (Adv. Har.) . . . 3		102 3		103 3	
107 (Counterpoint) 2		108 2		109 2	
Foreign Language 5		Foreign Language 3		Foreign Language 3	
Pol. or Soc. Science . . . 5		Physics 5D 5		Physics 5E 5	
Phys. Ed. or Mil. Sci. . . 1%		Phys. Ed. or Mil. Sci. . . 1%		Phys. Ed. or Mil. Sci. . . 1%	
	17%		15%		15%

THIRD YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Music 10 (Chor.) or elect 1		Music 11 (Chor.) or elect 1		Music 12 (Chor.) or elect 1	
68 (Applied) 3		69 3		70 3	
110 (Instr. Form) 2		111 2		113 (History) 2	
157 (Composition) 2		158 2		159 2	
104 (Adv. History) 2		105 2		106 2	
Foreign Language 3		Foreign Language 3		Foreign Language 3	
Electives 2		Electives 2		Electives 2	
	15		15		15

FOURTH YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Music 10 (Chor.) or elect 1		Music 11 (Chor.) or elect 1		Music 12 (Chor.) or elect 1	
118 (Applied) 3		119 3		120 3	
151 (Adv. Appr.) . . . 2		152 2		153 2	
160 (Polyphonic) . . . 2		161 2		162 2	
201 (Adv. Comp.) . . . 2		202 2		203 2	
204 (Orchest.) 2		205 2		206 2	
Electives 5		Electives 5		Philosophy 129 (Aesth.) 5	
	17		17		17

FOR THE BACHELOR OF MUSIC DEGREE WITH A MAJOR
IN PUBLIC SCHOOL MUSIC.

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Music 1 (Appreciation) 2		Music 2 (Appreciation) 2		Music 3 (Appreciation) 2	
4 (History) 2		5 (History) 2		6 (History) 2	
7 (Sight Singing) 2		8 (Sight Singing) 2		9 (Sight Singing) 2	
10 (Chor.) or elect 1		11 (Chor.) or elect 1		12 (Chor.) or elect 1	
14 (Ear Training) 2		15 (Ear Training) 2		16 (Ear Training) 2	
17-33 (Applied) . . . 3		19-32 (Applied) . . . 3		20-31 (Applied) . . . 3	
English Composition . . . 3		English Composition . . . 3		English Composition . . . 3	
Phys. Ed. or Mil. Sci. . . 1%		Phys. Ed. or Mil. Sci. . . 1%		Phys. Ed. or Mil. Sci. . . 1%	
	16%		16%		16%

SECOND YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Music 51 (Harmony) . . . 3		Music 52 (Harmony) . . . 3		Music 53 (Harmony) . . . 3	
54 (School Music) 2		55 (School Music) 2		56 (School Music) 2	
10 (Chor.) or elect 1		11 (Chor.) or elect 1		12 (Chor.) or elect 1	
Psychology 1 5		Physics 5D 5		Physics 5E 5	
Foreign Language 3		Foreign Language 3		Foreign Language 3	
Phys. Ed. or Mil. Sci. . . 1%		Phys. Ed. or Mil. Sci. . . 1%		Phys. Ed. or Mil. Sci. . . 1%	
	15%		15%		15%

THIRD YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Music 68 (Applied) . . . 3		Music 69 (Applied) . . . 3		Music 70 (Applied) . . . 3	
101 (Adv. Harm'y) 3		102 (Adv. Harm'y) 3		103 (Adv. Harm'y) 3	
113 (Education) . . . 2		114 (Education) . . . 2		Education 160.N. . . . 2	
Foreign Language 5		Education 5		Education 3	
Pol. or Soc. Science . . . 5		Foreign Language 3		Foreign Language 3	
	18		16		16

Only those who have successfully completed the work in Mus. 11 will be eligible for registration in Mus. 12.

FOURTH YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Music 107 (Counterpoint) 2		Music 108 (Counterpoint) 2		Music 109 (Counterpoint) 2	
110 (Instr. Forms) 2		111 (Instr. Forms) 2		112 (Instr. Forms) 2	
151 (Adv. Apprec.) 2		153 (Adv. Apprec.) 2		153 (Adv. Apprec.) 2	
154 (Ed. & Superv.) 2		155 (Ed. & Superv.) 2		156 (Ed. & Superv.) 2	
Electives 7		Education 145 (Pract.) 5		Philosophy 129 (Aesth.) 5	
		Electives 2		Electives 2	
	15		15		15

FOR THE DEGREE OF BACHELOR OF ARTS IN MUSIC

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
*Music, elective 3		*Music, elective 3		*Music, elective 3	
English Composition 3		English Composition 3		English Composition 3	
Foreign Language 5		Foreign Language 5		Foreign Language 5	
Chem., Botany or Zoology 5		Chem., Botany or Zoology 5		Elective 3	
Phys. Ed. or Mil. Sci. 1%		Phys. Ed. or Mil. Sci. 1%		Phys. Ed. or Mil. Sci. 1%	
	17%		17%		15%

SECOND YEAR

*Music, elective 5		Music, elective 5		Music, elective 5	
Pol. or Soc. Science 5		Physics 51-53 5		Physics 51-53 5	
For. Lang. or elective .. 5		Electives 5		Electives 5	
Phys. Ed. or Mil. Sci. 1%		Phys. Ed. or Mil. Sci. 1%		Phys. Ed. or Mil. Sci. 1%	
	16%		16%		16%

THIRD YEAR

Music, elective 6		Music, elective 6		Music, elective 6	
Psychology 5		†Liberal Arts, elective .10		Philosophy 5	
†Liberal Arts, elective .5				†Liberal Arts, elective .5	
	16		16		16

FOURTH YEAR

Music, elective 5		Music, elective 5		Music, elective 5	
†Liberal Arts, elective .10		†Liberal Arts, elective .10		†Liberal Arts, elective .10	
	15		15		15

A total of forty hours of foreign language pursued either in the high school or in the University is required for a degree in the College of Fine Arts. If a student has finished this work in the high school, he shall substitute approved electives in the University. If he presents no foreign language for admission to the University, he must supply the deficiency in addition to the hours demanded by the respective curricula, without credit.

Students of the public school music course are required to take Education 145 in the senior year. This practice teaching substitutes for the senior thesis.

CURRICULA IN ARCHITECTURE LEADING TO THE DEGREE OF BACHELOR OF ARCHITECTURE

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Hist. & Elem. Arch. 1 .. 2		Hist. & Elem. Arch. 2 .. 2		Hist. & Elem. Arch. 3 .. 2	
Arch. Drawing 4 3		Arch. Drawing 5 3		Arch. Drawing 6 3	
Descr. Geom. 7 2		Shades & Shadows 8 3		Perspective 9 2	
Statics 47 5		Statics 48 5		Foreign Language 5	
Freehand Draw. 10 1		Freehand Draw. 11 1		Freehand Draw. 12 1	
English 8 3		English 4 3		English 5 3	
Phys. Ed. or Mil. Sci. 1%		Phys. Ed. or Mil. Sci. 1%		Phys. Ed. or Mil. Sci. 1%	
	17%		17%		17%

* (1) Among the music courses indicated above the following are required: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 101, 102, 103.

† Liberal Arts electives for the junior and senior years should be in Upper Division courses.

SECOND YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Hist. & Elem. Arch. 51	2	Hist. & Elem. Arch. 52	2	Hist. & Elem. Arch. 53	2
Arch. Design 54	2	Arch. Design 55	2	Arch. Design 56	2
Bldg. Constr. 60	2	Bldg. Constr. 61	2	Bldg. Constr. 62	2
P.S.&D. 72	1	Freehand Draw. 73	1	Freehand Draw. 74	1
Mathematics 57	3	Mathematics 58	3	Mathematics 59	3
Foreign Language 1	5	Foreign Language 2	5	Foreign Language 3	5
Phys. Ed. or Mil. Sci.	1%	Phys. Ed. or Mil. Sci.	1%	Phys. Ed. or Mil. Sci.	1%
	17%		17%		19%

NOTE.—Students electing structural option will, in spring quarter, junior year, omit Arch. 103, 114, and register for Physics 3-5 hours.

THIRD YEAR

Hist. Arch. 101	2	Hist. Arch. 102	2	Hist. Arch. 103	2
Arch. Design 104	5	Arch. Design 105	5	Arch. Design 106	5
P. S.&D. 73	1	Water Color 113	1	Water Color 114	1
Mechanics (C.E.) 131	3	Mechanics (C.E.) 132	3	Rnf. Concrete (C.E.) 133	3
Physics (Gen.) 1	4	Physics (Gen.) 2	5	Acous. & Illum. (Phys.)	4
	15		16		15

FOURTH YEAR

(Design Option)

Hist. Arch. 151	2	Hist. Arch. 152	2	Hist. Arch. 153	2
Arch. Design 154	5	Arch. Design 155	5	Arch. Design 156	5
Freehand Draw. 157	3	Freehand Draw. 158	3	Freehand Draw. 159	3
P.S.&D. 16	1	P.S.&D. 17	1	P.S.&D. 18	1
Steam Eng. (M.E.) 82	3	Heat. & Vent. (M.E.) 182	3	Pl. Survey (C.E.) 21	3
Sanitation & Plbg. 115	2	Spec. & Office Prac. (Arch. 116)	2	Wood Anal. (For. 103)	2
	16		16		16

FOURTH YEAR

(Structural Engineering Option)

Frame Struc. (C.E.) 134	3	Bridges (C.E.) 161	5	Pl. Survey (C.E.) 21	3
Steam Eng. (M.E.) 82	3	Alt. Currents (E.E. 121-122)	6	Wood Anal. (For. 103)	2
Dir. Currents (E.E.) 101-102	6	Heat. & Vent. (M.E.) 182	3	Struc. Mat. (C.E.) 167	3
Bus. Law (Law) 54	3	Bus. Law 55	3	Bus. Law 56	3
Sanitation Plbg. (Arch. 115)	2	Spec. Office Prac. (Arch. 116)	2	Electives	5
	17		17		17

FOR THE DEGREE OF BACHELOR OF FINE ARTS WITH A MAJOR IN PAINTING AND DESIGN

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
P.S.D. (Freehand) 5	3	P.S.D. (Freehand) 6	3	P.S.D. (Freehand) 7	3
*P.S.D. (Art Struc.) 9	4	*P.S.D. (Art Struc.) 10	4	*P.S.D. (Art Struc.) 11	4
Art. Apprec. 16	1	Art. Apprec. 17	1	Art. Apprec. 18	1
English Composition	3	English Composition	3	English Composition	3
Foreign Language	5	Electives	5	Electives	5
Phys. Ed. or Mil. Sci.	1%	Phys. Ed. or Mil. Sci.	1%	Phys. Ed. or Mil. Sci.	1%
	17%		17%		17%

SECOND YEAR

P.S.D. (Art Struc.) 53	4	P.S.D. (Art Struc.) 54	4	*P.S.D. (Art Struc.) 55	4
P.S.D. (Illustration) 56	3	P.S.D. (Illustration) 57	3	P.S.D. (Illustration) 58	3
Greek Art 9	1	Foreign Language	5	Foreign Language	5
Foreign Language	5	Greek Art 10	1	Greek Art 11	1
Electives	3	Electives	3	Electives	3
Phys. Ed. or Mil. Sci.	1%	Phys. Ed. or Mil. Sci.	1%	Phys. Ed. or Mil. Sci.	1%
	17%		17%		17%

*The course in art structure comprises the following: Freshman, principles of design; sophomore, needle designing, woodblock printing, design; junior, pottery, interior decorating, posters, seniors, jewelry, landscape composition, design.

COLLEGE OF FINE ARTS

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THIRD YEAR					
Autumn Quarter	Credits		Winter Quarter	Credits	Spring Quarter
Arch. 1 (Arch. Dr.) ... 3	3		Arch. 2 (Arch. Dr.) ... 2	2	Arch. 3 (Arch. Dr.) ... 2
P.S.D. (Art Struc.) 108 3			P.S.D. (Art Struc.) 104 3		P.S.D. (Portrait) 109... 3
P.S.D. (Portrait) 107... 3			P.S.D. (Portrait) 108... 3		Roman Art (Lat. 16)... 1
Roman Art (Lat. 14)... 1			Roman Art (Lat. 15)... 1		Laboratory Science ... 5
Political Science ... 5			Laboratory Science ... 5		Electives ... 4
			Electives ... 2		
	15			15	

FOURTH YEAR					
P.S.D. (Art Struc.) 157 3			P.S.D. (Art Struc.) 158 3		P.S.D. (Art Struc.) 159 3
P.S.D. (Life 160 or			P.S.D. (Life 161, or		P.S.D. (Life 162, or
Mural Dec. 163) ... 3			Mural Dec. 165) ... 3		Mural Dec. 165) ... 3
Electives ... 9			Electives ... 0		Electives ... 3
	15			15	

FOR THE DEGREE OF BACHELOR OF FINE ARTS WITH A MAJOR IN PUBLIC SCHOOL DRAWING

FIRST YEAR					
Autumn Quarter	Credits		Winter Quarter	Credits	Spring Quarter
P.S.D. (Freehand) 5 ... 3	3		P.S.D. (Freehand) 6 ... 3	3	P.S.D. (Freehand) 7 ... 3
P.S.D. (Art Struc.) 9... 4			P.S.D. (Art Struc.) 10. 4		P.S.D. (Art Struc.) 11... 4
Art Appreciation 16... 1			P.S.D. (Illustration) 67... 1		Art Appreciation 18... 1
English Composition ... 3			English Composition ... 3		English Composition ... 3
Foreign Language ... 5			Foreign Language ... 5		Foreign Language ... 5
Phys. Ed. or Mil. Sci... 1%			Phys. Ed. or Mil. Sci... 1%		Phys. Ed. or Mil. Sci... 1%
	17%			17%	

SECOND YEAR					
P.S.D. (Art Struc.) 58. 4			P.S.D. (Art Struc.) 54. 4		P.S.D. (Art Struc.) 55... 4
P.S.D. (Illustration) 56. 3			P.S.D. (Illustration) 57. 3		P.S.D. (Illustration) 58. 3
Political Science ... 5			Electives ... 6		Psychology ... 5
Foreign Language ... 3			Phys. Ed. or Mil. Sci... 1%		Foreign Language ... 3
Phys. Ed. or Mil. Sci... 1%					Phys. Ed. or Mil. Sci... 1%
	16%			14%	

THIRD YEAR					
P.S.D. (Art Struc.) 103 3			P.S.D. (Art Struc.) 104 3		P.S.D. (Art Struc.) 105 3
P.S.D. (Illustration) 107 3			P.S.D. (Illustration) 108 3		P.S.D. (Illustration) 109 3
Greek Art 8 ... 1			Greek Art 9 ... 1		Greek Art 10 ... 1
Education ... 5			Education ... 3		Education ... 3
Elective ... 3			Laboratory Science ... 5		Laboratory Science ... 5
	15			15	

FOURTH YEAR					
P.S.D. (Art Struc.) 157 3			P.S.D. (Art Struc.) 158 3		P.S.D. (Art Struc.) 159 3
*Education 145 ... 5			Education ... 3		Philosophy ... 5
Education 160-P ... 3			Electives ... 9		P.S.D. (Art Struc.) 159 3
Electives ... 4					Electives ... 3
	18 1/2			15	

FOR THE DEGREE OF BACHELOR OF FINE ARTS WITH A MAJOR IN INTERIOR DECORATION

FIRST YEAR					
Autumn Quarter	Credits		Winter Quarter	Credits	Spring Quarter
P.S.D. (Freehand) 5 ... 3	3		P.S.D. (Freehand) 6... 3	3	P.S.D. (Freehand) 7... 3
P.S.D. (Art Struc.) 9 ... 4			P.S.D. (Art Struc.) 10 ... 4		P.S.D. (Art Struc.) 11 ... 4
P.S.D. (Art App.) 16... 1			P.S.D. (Art App.) 17 ... 1		P.S.D. (Art App.) 18 ... 1
English Composition ... 3			English Composition ... 3		English Composition ... 3
Foreign Language ... 5			Foreign Language ... 5		Foreign Language ... 5
Phys. Ed. or Mil. Sci... 1%			Phys. Ed. or Mil. Sci... 1%		Phys. Ed. or Mil. Sci... 1%
	17%			17%	

*Among the courses in Education, Practice Teaching must be included in the senior year.

SECOND YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
P.S.D. (Hshld. Des.) 59. 3		P.S.D. (Hshld. Des.) 60. 3		P.S.D. (Hshld. Des.) 61. 3	
Arch. (History) 1 3		Arch. (History) 2 3		Arch. (History) 3 2	
Arch. (Dimension Dr.) 13. 2		Arch. (Dimension Dr.) 14. 2		Arch. (Dimension Dr.) 15. 2	
Foreign Language 5		Electives 7		Home Ec. (Textiles) 25. 5	
Electives 2		Phys. Ed. or Mil. Sci. 1%		Electives 3	
Phys. Ed. or Mil. Sci. 1%				Phys. Ed. or Mil. Sci. 1%	
18%		18%		18%	

THIRD YEAR

P.S.D. (Interior Decoration) 110	Credits	P.S.D. (Interior Decoration) 111	Credits	P.S.D. (Interior Decoration) 112	Credits
P.S.D. (Furn. Design) 113	3	P.S.D. (Furn. Design) 114	3	P.S.D. (Furn. Design) 115	3
Political Science	2	Laboratory Science	2	Laboratory Science	2
Electives	5	Electives	5	Electives	5
15		15		15	

FOURTH YEAR

P.S.D. (Interior Decoration) 172	Credits	P.S.D. (Interior Decoration) 173	Credits	P.S.D. (Interior Decoration) 174	Credits
Greek Art 8 or Roman Art	5	Greek Art 9 or Roman Art	5	Greek Art 10 or Roman Art	5
Fine or Lib. Arts Elec. 6	1	Fine or Lib. Arts Elec. 9	1	Fine or Lib. Arts Elec. 9	1
H. E. House Furn. 143. 3					
15		15		15	

FOR THE DEGREE OF BACHELOR OF FINE ARTS WITH A MAJOR IN
MUSIC AND DRAWING

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Music 4 (Hist. of Music) 2		Music 5 (Hist. of Music) 2		Music 6 (Hist. of Music) 2	
Music 7 (Sight Singing) 2		Music 8 (Sight Singing) 2		Music 9 (Sight Singing) 2	
P.S.D. 5 (Drawing) 4		P.S.D. 6 (Drawing) 4		P.S.D. 7 (Drawing) 4	
Foreign Language 5		Foreign Language 5		Foreign Language 5	
English Composition 3		English Composition 3		English Composition 3	
Mil. Sci. or Phys. Ed. 1%		Phys. Ed. or Mil. Sci. 1%		Mil. Sci. or Phys. Ed. 1%	
17%		17%		17%	

SECOND YEAR

Music 14 (ear tr. or elec.) 2	Music 15 (ear tr. or elec.) 2	Music 16 (ear tr. or elec.) 2
Music 54 (School Music) 2	Music 55 (School Music) 2	Music 56 (School Music) 2
Foreign Language 5	Laboratory Science 5	Psychology 5
Political Science 5	P.S.D. 10 (Art Struc.) 3	Laboratory Science 5
P.S.D. 9 (Art Struc.) 3	Electives 5	P.S.D. 11 (Art Struc.) 3
Mil. Sci. or Phys. Ed. 1%	Mil. Sci. or Phys. Ed. 1%	Mil. Sci. or Phys. Ed. 1%
18%	18%	18%

THIRD YEAR

Music 18 (Ap. Music) .. 1	Music 19 (Ap. Music) .. 1	Music 20 (Ap. Music) .. 1
Music 51 (Harmony) ... 3	Music 52 (Harmony) ... 3	Music 53 (Harmony) ... 3
Music 113 (Music Ed.) .. 2	Music 114 (Music Ed.) .. 2	Educ. 160N (Music Ed.) 2
P.S.D. 53 (Art Struc.) 3	P.S.D. 54 (Art Struc.) 3	P.S.D. 55 (Art Struc.) 3
P.S.D. 16 (Art Apprec.) 1	P.S.D. 17 (Art Apprec.) 1	P.S.D. 18 (Art Apprec.) 1
P.S.D. 103 (Pottery) ... 3	P.S.D. 104 (Pottery) ... 3	Education 3
Education 5	Education 3	Electives 5
18	18	18

FOURTH YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Music 68 (Ap. Music) .. 2		Music 69 (Ap. Music) .. 2		Music 70 (Ap. Music) .. 2	
Music 151 (Music Apprec.) 2		Music 152 (Music Apprec.) 2		Music 153 (Music Apprec.) 2	
Music 154 (Music Super.) 2		Music 155 (Music Super.) 2		Music 156 (Music Super.) 2	
Education 160-P 3		P.S.D. 57 (Illus. & Life) 3		P.S.D. 101 (Pub. School Drawing Methods) 3	
P.S.D. 56 (Illus. & Life) 3		Education 3		P.S.D. 58 (Illus. & Life) 3	
*Education 145 5		Electives 3		Electives 3	
17		15		15	

*Among the courses in Education, Practice Teaching must be included in the senior year.

**CURRICULUM IN ART LEADING TO CERTIFICATES OF PROFICIENCY
FOR SUPERVISORS OF ART**

FIRST YEAR

<i>Autumn Quarter</i>	<i>Credits</i>	<i>Winter Quarter</i>	<i>Credits</i>	<i>Spring Quarter</i>	<i>Credits</i>
P.S.D. (Art Struc.) 9...	4	P.S.D. (Art Struc.) 10...	4	P.S.D. (Art Struc.) 11...	4
P.S.D. (Freehand) 5...	3	P.S.D. (Freehand) 6...	3	P.S.D. (Freehand Cast) 7	3
English Composition ...	3	English Composition ...	3	English Composition ...	3
Art Appreciation 16 ...	1	Art Appreciation 17...	1	Art Appreciation 18 ...	1
Electives	5	Electives	5	Electives	5
<u>16</u>		<u>16</u>		<u>16</u>	

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SECOND YEAR

P.S.D. (Art Struc.) 53...	4	P.S.D. (Art Struc.) 54...	4	P.S.D. (Art Struc.) 55...	4
P.S.D. (Freehand) 56...	3	P.S.D. (Freehand) 57...	3	P.S.D. (Freehand) 58...	3
Psychology	5	Education	5	Education	5
Education 160-P	3	Electives	3	Public School Draw. 101	3
				Electives	1
<u>15</u>		<u>15</u>		<u>16</u>	

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**CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF ARTS IN
DRAMATIC ART**

FIRST YEAR

<i>Autumn Quarter</i>	<i>Credits</i>	<i>Winter Quarter</i>	<i>Credits</i>	<i>Spring Quarter</i>	<i>Credits</i>
Dramatic Art, elective ...	3	Dramatic Art, elective ...	3	Dramatic Art, elective ...	3
English Composition ...	3	English Composition ...	3	English Composition ...	3
Foreign Language	5	Foreign Language	5	Foreign Language	5
Chem., Botany or Zool...	5	Chem., Botany or Zool...	5	Elective	5
Phys. Ed. or Mil. Sci..	1%	Phys. Ed. or Mil. Sci..	1%	Phys. Ed. or Mil. Sci..	1%
<u>17%</u>		<u>17%</u>		<u>17%</u>	

48

SECOND YEAR

Dramatic Art, elective ...	5	Dramatic Art, elective ...	5	Dramatic Art, elective ...	5
Arch. (Hist.) 1	2	P.S.D. (Textile) 170...	2	P.S.D. (Textile) 171...	2
P.S.D. (Textile) 169...	2	Arch. (Hist.) 2	2	Arch. (Hist.) 3	2
Foreign Language.....	5	Electives	5	Pol. or Soc. Science ..	5
Electives	2	Phys. Ed. or Mil. Sci..	1%	Mil. Sci. or Phys. Ed...	1%
Phys. Ed. or Mil. Sci..	1%				
<u>17%</u>		<u>15%</u>		<u>15%</u>	

44

THIRD YEAR

Dramatic Art, elective ...	6	Dramatic Art, elective ...	6	Dramatic Art, elective ...	6
Psychology	5	†Liberal Arts, electives	10	†Liberal Arts, electives	10
†Liberal Arts, electives	5				
<u>16</u>		<u>16</u>		<u>16</u>	

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FOURTH YEAR

Dramatic Art, electives..	5	Dramatic Art, electives..	5	Dramatic Art, electives..	5
†Liberal Arts, elective..	10	†Liberal Arts, electives..	10	†Liberal Arts, electives..	10
<u>15</u>		<u>15</u>		<u>15</u>	

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COURSES

For description of courses, see Departments of Instruction, printed elsewhere in this catalogue. (See Index).

† Liberal Arts electives for the junior and senior years should be in Upper Division courses.

COLLEGE OF FISHERIES

THE FACULTY

HENRY SUZZALLO, Ph.D. (Columbia), LL.D. (California),	PRESIDENT
JOHN THOMAS CONDON, LL.M. (Northwestern),	DEAN OF FACULTIES
JOHN N. COBB,	Professor of Fisheries, DIRECTOR
DONALD R. CRAWFORD, B.S. (Washington),	Instructor in Fish Culture
CLARENCE L. ANDERSON, B.S. (Washington),	Instructor in Fisheries
<hr/>	
TREVOR KINCAID, A.M. (Washington),	Professor of Zoology
FREDERICK MORGAN PADELFOORD, Ph.D. (Yale),	Professor of English and Dean of the Graduate School
FREDERICK ARTHUR OSBORN, Ph.D. (Michigan),	Professor of Physics and Director of the Physics Laboratories
CHARLES WILLIS JOHNSON, Ph.C., Ph.D. (Michigan),	Professor of Pharmaceutical Chemistry, and State Chemist
THEODORE CHRISTIAN FRYE, Ph.D. (Chicago),	Professor of Botany
ROBERT EDOUARD MORITZ, Ph.D. (Nebraska), Ph.D. (Strassburg),	Professor of Mathematics
HARVEY LANTZ, A.M. (DePauw), LL.B. (Kent),	Professor of Law
EVERETT OWEN EASTWOOD, C.E., A.M. (Virginia), S.B. (Massachusetts Institute of Technology),	Professor of Mechanical Engineering
HENRY KREITZER BENSON, Ph.D. (Columbia),	Professor of Chemical Engineering
JOHN WEINZIERL, Ph.D. (Wisconsin), Dr.P.H. (Harvard),	Professor of Bacteriology
STEPHENSON SMITH, Ph.D. (Pennsylvania),	Professor of Psychology
LESLIE JAMES AYES, J.D. (Chicago),	Professor of Law
STEPHEN IVAN MILLER, A.B. (Stanford), LL.B. (Michigan),	Professor of Economics and Dean of the College of Business Administration
GEORGE MOPHAEL SMITH, Ph.D. (Freiburg),	Professor of Inorganic Chemistry
WILLIAM MAURICE DEHN, Ph.D. (Illinois),	Professor of Organic Chemistry
GEORGE BURTON RIGG, Ph.D. (Chicago),	Associate Professor of Botany
WILLIAM DANIEL MORIARTY, Ph.D. (Michigan),	Associate Professor of Business Administration
GEORGE SAMUEL WILSON, B.S. (Nebraska), ..	Associate Professor of Mechanical Engineering
JOHN LOCKE WORCESTER, M.D. (Medical School, University of Alabama)	Associate Professor of Anatomy
WILLIAM EDWARD COX, A.M. (Texas),	Associate Professor of Business Administration
HERMAN VANCE TARTAR, B.S. (Oregon Agricultural College), ..	Associate Professor of Chemistry
EDWIN JAMES SAUNDERS, A.M. (Harvard),	Assistant Professor of Geology
ELI VICTOR SMITH, Ph.D. (Northwestern),	Assistant Professor of Zoology
FRED HARVEY HEATH, Ph.D. (Yale),	Assistant Professor of Chemistry
ELDIN VERNE LYNN, Ph.D. (Wisconsin), ..	Assistant Professor of Pharmacology and Chemistry
HORACE GUNTHERP, Ph.D. (Kansas),	Assistant Professor of Zoology
THOMAS G. THOMPSON, Ph.D. (Washington),	Assistant Professor of Chemistry
JEAN ROBIN WILKES, Ph.C., B.S. (Washington), ..	Assistant State Chemist and Bacteriologist

PURPOSE AND LOCATION

The College of Fisheries was established in 1919. It has a two-fold purpose: First, to afford instruction in the principles and practices of fishery; second, to promote the interest of fisheries in the state of Washington and in the United States by encouraging the right use of fishery resources.

The college has exceptional advantages in its location. The University campus is located on the shores of Lakes Washington and Union, which bodies of water are connected by canals with each other and with Puget Sound. In the latter are carried on extensive commercial fisheries for fishes, oysters, clams, crabs, etc., while fleets of vessels with headquarters at Seattle and other cities on the Sound, carry on extensive fisheries in the ocean adjacent to the Washington coast, and on the fishing banks along the Alaska coast. Numerous canneries, smokehouses, cold storage plants, fertilizer plants, etc., are to be found in Seattle and other places on the Sound. A number of fish hatcheries are owned and operated in the state of Washington by the federal, state and county governments. At Friday Harbor the University owns and operates an excellent marine biological station. These many advantages present unrivaled opportunities for the studying of the fisheries, aquatic life and fish culture.

REQUIREMENTS FOR ADMISSION AND GRADUATION

Full information regarding requirements for admission, registration, and expenses may be found on pages 40, 48, 49.

Degrees.—The four-year curricula in the College of Fisheries lead to the degree of bachelor of science (B.S.) in fisheries.

The degree of master of science (M.S.) in fisheries will be conferred upon any graduate of the four-year curricula who has completed at least one year of graduate work and has presented a satisfactory thesis with the grade of A. or B. A graduate of any other institution of equal rank will be given full graduate standing, but the candidate must have a satisfactory knowledge of zoology, chemistry, bacteriology and botany. The selection of work for this degree must, in each case, be approved by the director of the College.

Advanced Standing.—Credit will be given for subjects pursued at other colleges of recognized rank upon presentation to the registrar of certificates that such subjects have been satisfactorily completed. Graduates of this institution and others of similar rank are admitted to graduate standing.

FACILITIES FOR STUDY

Shellfish Culture.—On Puget Sound and in Hood Canal are located numerous private oyster beds where cultivation has been practiced for some years. The state also owns certain oyster reserves which will be utilized for experimental purposes. These are all within reasonable distance of Seattle and are available for study purposes by the students of the College.

Fishery Operations.—Trap netting, purse and haul seining, gill netting, trolling, hand and long-line fishing, oyster gathering, clam digging, kelp harvesting, and other forms of commercial fishing, are carried on either in the harbor of Seattle, or waters adjacent, during the proper seasons, and can be observed and studied on the ground.

Commercial Plants.—In or near Seattle and available for study are plants for the canning of salmon, pilchards, clams, etc.; the mildcuring of salmon; the pickling of salmon, herring, sablefish, etc.; the freezing and cold storage of salmon, halibut, sablefish, herring, steelhead trout, and smelt; the smoking

of salmon, halibut, sablefish, herring, sturgeon, etc.; the extraction of oils from fishery products and the preparation of fish meal and fertilizer from the residue; and the extraction of chemical products from kelp and other aquatic plants. Two large can-making establishments, several plants manufacturing canning machinery, and a number of others supplying various machines and supplies for the fisheries, are also located in Seattle. Such of these industries as are not in Seattle are conveniently situated on Puget Sound, and the transportation costs to them would be very low.

Aquarium.—In the Fisheries building of the State Fisheries Board, at Fourth avenue and Seneca street, Seattle, a working aquarium is available for studying purposes.

Laboratories.—For description of fisheries laboratories see page 31.

Field Excursions.—Much of the instruction in fish culture and fisheries technology is given in the field, necessitating frequent excursions to nearby hatcheries, fishing camps, oyster beds, and industrial plants, and also the use in nearby waters of the varied fishery apparatus owned by the College. The expenses of these excursions will be comparatively small.

Summer Work.—Students of fisheries are urged to spend their summer vacation in some line of practical work connected with the fishery industry. As the college is convenient to the more important fisheries and hatcheries of the Northwest coast and Alaska, ample opportunity is afforded for summer employment. Students not only acquire valuable experience in this way, but earn a considerable portion of their university expenses.

Fishery Club.—The Fishery Club is an organization open to all students of the College of Fisheries. It aims: (1) To secure full acquaintance and good fellowship among students and instructors; (2) to keep in touch with everyday problems in fisheries, and the men who are doing things worth while in this industry, and (3) to interest the public in the College of Fisheries and in the fishery problems of the state and nation.

Short Courses for Fishermen and Fish Culturists.—These courses will be given during each winter quarter, provided there are a sufficient number of applicants. Applicants must be at least twenty years old and show ability to carry the work with profit to themselves. Admission to courses is without examinations. Examinations will be given in the various subjects at the close of the course and a certificate showing the work satisfactorily covered issued to each student.

OUTLINE FOR CURRICULA

Choice of Electives.—In the election of studies, students should follow the sequence of subjects as outlined in the curriculum. Deviations from the prescribed order will not be allowed by class advisors unless such deviation is imperative.

For specialization in fisheries administration, the following electives are recommended: Fisheries 4, 5; business law (B.A. 54, 55); money and banking, (B.A. 57); economics of markets (B.A. 106); business organization (B.A. 105); plant management (B.A. 167); advertising (B.A. 137); accounting (two quarters, B.A. 11-12); admiralty law (Law 165); psychology 1 and 121; modern language (Spanish or German preferred); business statistics (B.A. 118).

For specialization in fisheries technology and fish culture: Fisheries 4, 5; engineering drawing (C.E. 1, 2); mechanical engineering 82, 198; chemistry and food analysis 105-106-107; industrial chemistry 123; physiological

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FIRST YEAR

SECOND YEAR

THIRD YEAR

FOURTH YEAR

II. FISHERIES TECHNOLOGY

FIRST YEAR

SECOND YEAR

THIRD YEAR

FOURTH YEAR

*If the student has taken one year of physics in high school he will substitute electives for Physics 47 and 48.

COURSES

For description of courses, see Departments of Instruction, printed elsewhere in this catalogue. (See Index).

WINTER SESSION FOR FISHERMEN

The third annual short session for fishermen will open on January 2, 1923, continuing until about March. The short courses, and such others as later investigation may determine are necessary, are offered for the benefit of persons who are interested in the various branches of fisheries. Admission to the courses is without examination. No previous preparation, training or fishery experience is necessary to enter, other than ability to read and write English. The past experience and future aims of each student are taken into consideration, and the character of his work arranged accordingly. Examinations will be given in the various subjects at the close of the course and a certificate showing the work satisfactorily covered issued to each student.

The courses include the following subjects: The canning and curing of fishery products; Scotch and other methods of curing herring; fish culture and pond culture.

Inquires in regard to the short courses may be addressed to the Director, College of Fisheries.

COLLEGE OF FORESTRY

THE FACULTY

HENRY SUZZALLO, Ph.D. (Columbia), LL.D. (California),PRESIDENT
JOHN THOMAS CONDON, LL.M. (Northwestern),DEAN OF FACULTIES
HUGO WINKENWERDER, M.F. (Yale),Professor of Forestry; DEAN
BERT PERBONS KIRKLAND, A.B. (Cornell),Professor of Forestry
*ELIAS TREAT CLARK, M.F. (Yale),Associate Professor of Forestry
BROB LEONARD GRONDAL, M.S.F. (Washington),Assistant Professor of Forestry
CONRAD W. ZIMMERMAN, A.B. (Washington),Lecturer in Timber Physics

TREVOR KINCAID, A.M. (Washington),Professor of Zoology
HENRY KREITZER BENSON, Ph.D. (Columbia),Professor of Chemical Engineering
GEORGE SAMUEL WILSON, B.S. (Nebraska), ..Associate Professor of Mechanical Engineering
GEORGE IRVING GAVETT, B.S. (C.E.), (Michigan),Assistant Professor of Mathematics
JOHN WILLIAM HOTSON, Ph.D. (Harvard),Assistant Professor of Botany
DAVID CONNOLLY HALL, M.D. (Chicago),University Health Officer; Professor of Hygiene
CLINTON LOUIS UTTEBECK, M.S. (Washington),Instructor in Physics

*Absent on leave.

GENERAL INFORMATION

The College of Forestry was established in 1907. It has exceptional advantages in its location. The University campus comprises 582 acres of which 109 are open water; and 40 acres of timber offer splendid opportunities for field work in silviculture and forest measurements. Other excellent forests are within walking distance of the campus. The University also owns large forest tracts in various parts of the state, where students may conduct extensive research work. The immense national forests within a few hours' ride of Seattle afford practical object lessons in the art of forest management. The city of Seattle is in the center of the timber industry of Washington and the Northwest. In its many sawmills and wood-working industries, the student has unrivaled opportunities for studying wood utilization.

FOREST CLUB

The Forest Club is an organization comprised of all students of the College of Forestry. It aims: To secure acquaintance and good fellowship among students and instructors; to keep in touch with everyday problems in forestry and lumbering, and the leaders in these industries; to interest the public in the college and in the forestry and lumbering problems of the state.

The Club has issued the "Forest Club Annual" regularly since 1913. This publication has been devoted to articles and illustrations of the College, to scientific and popular articles about forestry and to a complete roster of students and alumni. Beginning with April, 1922, the Annual was super-

ceded by a quarterly known as the "University of Washington Forest Club Quarterly". The subscription price is \$2. a year. It is devoted largely to the Western forestry and lumbering interests.

Officers of the club for the year 1921-1922 are: President, J. O. Shank; vice-president, J. D. Roberts; secretary-treasurer, L. L. Simpson; editor, Will Schwiesow; advertising manager, Albert Lauber.

FIELD INSTRUCTION AND SUMMER WORK

Much of the instruction in technical forestry and lumbering is given in the field, in nearby forests, logging camps, saw mills, woodworking plants, and plants that manufacture equipment. This work is intensely practical and enables the student to correlate the theoretical class room instruction with its application in the field.

Students in forestry are also urged to spend their summer vacation in some line of practical work connected with the forest industry. The school, situated in the heart of a great lumbering section and near extensive national forests, offers ample opportunity for summer employment. Students not only acquire valuable experience in this way, but earn a considerable portion of their university expenses.

FOREST AND LUMBERING LABORATORIES

For description of laboratories see pages 31, 32.

REQUIREMENTS FOR ADMISSION AND GRADUATION

Full information regarding requirements for admission, registration, and expenses may be found on pages 40, 48, 49.

Advanced Standing.—Credit will be given for subjects pursued at other colleges of recognized rank upon presentation to the registrar of certificates that such subjects have been satisfactorily completed. Graduates of this institution and others of similar rank are admitted to graduate standing.

Short Courses for Forest Rangers and Lumbermen.—Applicants must be at least twenty years old and show ability to carry the work with profit to themselves. Admission to classes is without examination. (For details of short courses, see page 143.)

Undergraduate Work.—For the degree of bachelor of science in forestry (B.S.F.) the student shall have completed in addition to the required subjects outlined in the curriculum, at least 46 credits in subjects selected from forestry, lumbering, engineering, or the botanical, chemical, zoological, geological or economic sciences, the subjects to be approved by the student's class advisor, but in no case shall more than 25 in any department other than forestry be allowed toward graduation. The total number of credits required for graduation shall be 180 exclusive of shop and military science. Candidates for the degree must furthermore receive grades of A, B, or C in at least three-fourths of the credits required for the degree.

Graduate Work.—Two advanced degrees are offered to students who have received the bachelor's degree at this University or other institutions of equal rank, and have a satisfactory knowledge of the fundamental sciences. For the degree of master of forestry (M.F.) he shall have been credited at this University with 225 credits, of which at least 78 are in approved technical forestry subjects. For the degree of master of science in forestry (M.S.F.) he shall be required to present a minor in one or two subjects in the College of Science. In addition to these requirements for either degree

he must present a thesis embodying the results of independent research and pass an oral examination open to all members of the faculty. Only grades of A and B can be counted toward a graduate degree.

SPECIAL OPPORTUNITIES FOR ADVANCED WORK

Attention is called to the equipment and to the special advanced courses for graduate students. The physical equipment of the College of Forestry and the exceptional advantages of its location are particularly advantageous for graduate students. The advanced courses include dendrology, silviculture, management, wood technology, timber physics, wood preservation, advanced forest products, the business of lumbering, and research. Special facilities and apparatus are provided for this advanced work. A graduate from a college of forestry of equal rank with the College of Forestry of this University may complete the requirements for the advanced degree in one year. Graduates from other institutions of equal rank, but giving no courses in technical forestry, may complete the required work in two years, providing they have training in the fundamental sciences, mathematics and surveying.

ORGANIZATION OF THE CURRICULUM

The curriculum of the College of Forestry is organized to give the student a broad general training during his first two years attendance with opportunity for specialization during the two final years. However, enough elementary technical work is included in the lower division so that the student will have received definite preparation for some practical field of work by the end of his freshman or sophomore year.

A very fair degree of specialization can be made in the four year undergraduate course, but emphasis should be placed upon the importance of a year of graduate work for thorough specialization. The College of Forestry is prepared to offer work for thorough specialization in (1) forest service and state work, (2) logging engineering, (3) forest products, (4) the lumber business.

Arrangements may also be made for specialization along other lines, such as forest pathology, forest entomology, recreation or any others into which a broad training in forestry enters. This may be done by a substitution of some of the required courses for those of other departments. All such substitutions require the sanction of the dean and the University graduation committee.

Choice of Electives.—In the election of studies, students should follow the sequence of subjects as outlined in the curriculum. Deviations from the prescribed order will not be allowed by class advisers unless such deviation is imperative.

The curriculum of the College is practically identical for all students during the first two years, but provides for specialization in the upper division courses in (1) forest management, (2) logging engineering, (3) forest products, and (4) the business of lumbering. Arrangements may also be made for specialization in other lines associated with forestry and lumbering. Consult the Dean of the College of Forestry. Students should decide by the end of their sophomore year in which field they desire to specialize. The student should be especially careful to register for the electives required for his advanced specialized courses as no student will be admitted to the advanced subjects who has not had the necessary prerequisites. These are definitely stated in connection with the course descriptions.

LOWER DIVISION

It will be the aim to prepare students who cannot go farther than the end of the Lower Division for forest ranger service, and as assistants to logging engineers. Upon approval of the dean they will be allowed to substitute certain of the subjects of the junior year for some of the required freshman and sophomore work.

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
For. 1 (Dend.).....	5	Bot. 11	5	Bot. 12	5
For. 2 (Gen. For.).....	3	For. 3 (Gen. For.)	3	Math. 56	3
Math. 54 (Foresters)...	3	Math. 55	3	For. 4 (Protection)	3
English	3	C. E. 1	3	C. E. 56	5
For. 5 (Woodcraft).....	2	C. E. 55	2		
Phys. Ed. or Mil. Sci....	1½	Phys. Ed. or Mil. Sci....	1½	Phys. Ed. or Mil. Sci....	1½
Shop		Shop		Shop	

SECOND YEAR

For. 53 (Construction)...	3	Chem. 2 (Gen. Chem.)..	5	For. 52 (Mensurat.)....	5
For. 57 (Silvics)	3	For. 51 (Mensurat.)....	5	For. 58 (Silvical.)....	5
Chem. 1 (Gen. Chem.)..	5	English	3	Geol. 5 (Forestry).....	5
Econ. 1 (Gen.)	5	Elective	2		
Phys. Ed. or Mil. Sci....	1½	Phys. Ed. or Mil. Sci....	1½	Phys. Ed. or Mil. Sci....	1½

UPPER DIVISION

Beginning with the Upper Division, the student should carefully consider the electives with reference to the specialty he intends to make his life work.

THIRD YEAR

For. 101 (Technol.)....	5	For. 158 (Util.)	5	For. 105 (Preserva.)....	5
Physics 97 (Engs.)....	5	Physics 98 (Engs.)....	5	Physics 99 (Engs.)....	5
M.E. 82 (Steam Engs.)..	3			For. 104 (Tim. Tests)..	5
Recreation		Recreation			

Suggested Electives

Chem. 101 (Qual Anal.)	5	Chem. 111 (Quant An.)	5	Bot. 111 (Pathology) ..	5
B.A. 11 (Accounting)..	5	B.A. 12 (Accounting)..	5	B.A. 56 (Bus. Law)....	3
C.E. 22 (Log. R.E.)....	5	B.A. 55 (Bus. Law)....	3		
B.A. 54 (Bus. Law)....	3	M.E. 83	3		

FOURTH YEAR

For. 151 (Management) 5	For. 126 (Econ.)	3	All elective. 30
For. 153 (Gen. Lumber) 5	For. 152 (Management) 5		Recreation
Recreation	Recreation		

Suggested Electives

For. 185 (Log. Eng.)... 4	For. 186 (Log. Eng.)... 4	For. 187 (Log. Eng.)...16
For. 183 (Milling)..... 5	For. 184 (Mfg. Prob.).. 3	For. 188 (Adv. Prod.).. 5
	For. 119 (Admin.) 3	

GRADUATE

The following subjects are primarily for graduate students. Seniors will be allowed to elect them only upon recommendation of the dean and the instructor concerned. With the exception of the thesis none of the subjects is, strictly speaking, required, but the student will elect all those belonging to one specialty as determined upon consultation with his class advisor. A sufficient number will have to be taken to fulfill the requirements for the master's degree.

For. 202 (Thesis).....	3	For. 202 (Thesis).....	3	For. 202 (Thesis).....	3
For. 201 (For. Geog.)..	3	For. 209 (Seminar).....	2	For. 223 (Adv. Manage.)	8
For. 208 (Seminar)....	2	Elective	10	For. 224 (Adv. Milling	
For. 221 (History).....	2			and Marketing)	5

COURSES

For description of courses, see Departments of Instruction, printed elsewhere in this catalogue. (See Index).

PRACTICAL SHORT COURSES IN FORESTRY, LOGGING AND LUMBERING

GENERAL INFORMATION

Admission—Without examination. Only requirement is that applicants must be at least 20 years old and show evidence of ability to carry the work with profit to themselves. If in doubt write. See special requirement under course in Logging.

Expenses—The total expenses for the twelve weeks, exclusive of fare to Seattle, need not exceed \$165.

Tuition	\$20
Deposit for material supplied	\$ 2
Deposit to insure care in use of instruments (returnable)	\$ 3
Board and lodging, per month	\$40
Books, drawing instruments, etc.	\$10-15
Field trips, about	\$10

Equipment Required—Since much of the field work will be done in the woods each man should be equipped with suitable rough clothing and shoes. Men owning compasses or barometers are requested to bring them.

How to Enroll—On arrival at the University, students should report at the Office of the Dean, Room 209 Forest Products Laboratory, where they will be given all necessary directions.

The time for the course is limited, all men should report for enrollment on January 2 or 3, in order that all classes may begin promptly at 8 o'clock on the morning of January 4.

Attendance and Deportment—Students in these courses will be expected to attend classes regularly and in all respects will be required to observe the same rules that apply to the regular long course students in the University.

Examination and Certificate.—Examinations will be given in the various subjects at the close of the course and a certificate showing the work satisfactorily covered issued to each student.

Special Lectures and Demonstrations—Arrangements are now under way for a number of special lectures and demonstrations by prominent men in forestry and lumbering.

Three distinct courses are offered:

I. Forestry: For men who are now employed as forest rangers and guards who wish to increase their efficiency, for persons who wish to prepare for this work and for timberland owners who desire some practical knowledge of the care and management of their timber holdings. The course includes the following subjects: Forest Administration, Characteristics of Trees, Silviculture, Forest Measurements, Surveying, Logging, Forest Economics.

Note: Elective courses will be given only if a sufficient number elect them.

II. Logging: For persons engaged in woods work about the donkey engine, with the scaler, the cruiser, the logging engineer, or in any other capacity, who wish to prepare themselves for advancement. It is not for men engaged in mill work. All persons wishing to enter this course must have had at least 3 months' experience in a logging camp and should at time of registration bring a statement to this effect from a former employer or foreman.

This course includes the following subjects: Characteristics of Trees, Surveying, Forest Measurements, Forest Economics, Logging, Electives from Forestry Course.

III. Lumber and Its Uses. Outlined with special reference to presenting this information for the use of persons engaged in office work at the sawmills, lumber salesmen, architects, engineers, builders and building inspectors.

The course includes the following subjects: Characteristics of Trees, Properties of Wood, Wood Utilization, Forest Economics.

Other subjects to be elected from the course in forestry.

SCHOOL OF LAW

THE FACULTY

HENRY SUZZALLO, Ph.D. (Columbia), LL.D. (California)	PRESIDENT
JOHN THOMAS CONDON, LL.M. (Northwestern)	Professor of Law; DEAN
HARVEY LANTZ, A.M. (De Pauw), LL.B. (Kent)	Professor of Law
IVAN WILBUR GOODNER, LL.B. (Nebraska)	Professor of Law
CLARK PERSCOTT BISSETT, A.B. (Hobart)	Professor of Law
LESLIE JAMES AYER, B.S., J.D. (Chicago)	Professor of Law
JOSEPH GRATTAN O'BRYAN, A.R. (Jesuit College)	Lecturer on Law

ORGANIZATION AND EQUIPMENT

General Statement.—The Law School of the University of Washington was established in 1899. The case system is generally used and is designed to give an effective knowledge of legal principles and to develop the power of independent legal reasoning. A thorough legal training is offered to students of maturity and with previous preliminary education, and the courses offered are adapted to train and fit the student for practice in any state or jurisdiction. Special attention and emphasis is given to the law of the state of Washington, and in the illustrations and development of legal principles, cases and statutes are largely cited from the state of Washington and other Northwestern and Pacific states. The Law School is a member of the Association of American Law Schools.

The Law Building.—The Law School occupies the entire upper floor of Commerce Hall. This building, which is one of the largest of the University buildings and is in the center of the campus, in the Liberal Arts Quadrangle, represents the best in modern construction and equipment. The law library occupies the entire north end, and an idea of its roominess may be gained from its dimensions, which are, exclusive of stacks, forty by seventy feet. In addition to this general reading room, there is a large consultation room, twenty-five feet square, adjoining. There are three large lecture or recitation rooms, and a large room fitted and used exclusively for the trial court. These are all readily accessible to each other, and every convenience and improvement tending to add to the efficiency of the student, from an equipment standpoint, is present.

The Libraries.—The University law library consists of about 25,000 volumes. It contains the reports of all the courts of last resort, the reported lower courts of several states and the English courts. The latest revisions of all the state statutes and a large collection of the session laws of the various states, including a complete set of each of the Pacific Coast states, are important features.

The library is catalogued and indexed by the Library of Congress cards.

The University general library contains 112,870 volumes and is especially strong in reference works.

The Public Library of the city of Seattle is open to the free use of our students and is within easy distance of the campus by street car.

GENERAL INFORMATION

The four quarter system is adopted in the Law School. Each quarter is approximately for twelve weeks, and credit for work is usually on the basis of one credit representing a recitation or lecture course one hour per week per quarter. In adopting this system the total hour values of courses prevailing in the schools of the Association of American Law Schools have been generally retained—e. g., courses formerly given two hours per week per semester are under the quarter system given three hours per week per quarter. This makes possible a better sequence of courses in the first year and permits students to enter at the opening of any quarter. However, students beginning the study of law cannot be registered for the full fifteen-hour course except when entering at the first, or autumn quarter.

Fees.—A fee of fifteen dollars (\$15) per quarter for persons who have been domiciled in the state of Washington or territory of Alaska, for at least one year prior to date of registration, and of fifty dollars (\$50) per quarter for all others, is charged in the Law School, payable at the beginning of each quarter. A law library fee of ten dollars (\$10) per quarter is also charged all law students, payable at the beginning of each quarter. A diploma fee of five dollars (\$5) is charged all students to whom diplomas are issued.

For information on other general University fees and expenses applicable to all students, see pages 49-53.

Admission to the Bar.—The Law School of the University of Washington is by law made the standard of approved law schools for the purpose of admission to the bar of this state. Students intending to practice in the state of Washington should consult the dean of the Law School upon entering the Law School, and register in accordance with the rules of the State Board of Law Examiners.

ADMISSION AND GRADUATION

To be admitted to regular standing in the Law School students must present acceptable credits or pass examination entitling them to admission to this University and in addition thereto present a junior certificate from the College of Liberal Arts or the College of Science of this University, or present acceptable credits or pass examinations equivalent to the junior certificates. The entrance requirements are stated fully in the section of the catalogue relating to entrance information (Pages 40-47.)

Advanced Standing.—If in addition to satisfying the entrance requirements for regular standing in the Law School, the student has earned credits in another law school of satisfactory standing, by regular attendance for at least one academic year of not less than eight months, he will ordinarily receive credit for such work, subject to the following restrictions: The work must equal in amount and character that required by this Law School. Not more than two years' credit will be allowed for such work. The right is reserved to refuse advance credit in law in whole or in part, save upon examination. Candidates for a degree, with advanced standing, must spend at least one full college year in the Law School.

Special Students.—No person will be admitted as a special student in law, unless he is twenty-one years of age and his general education is such as to entitle him to take the state bar examination.

Special students who comply with these requirements and with the regulations for admission of special students (see General Information, page 45) will be admitted to take such work in law as their previous preparation

enables them to carry successfully, and upon satisfactory completion of sufficient law work to entitle them to take the state bar examination, will be given a certificate or affidavit entitling them to apply for examination. Students who intend to take this method must file notice of their intention to study law with the clerk of the Supreme Court as required by law.

Special Students Becoming Candidates for Degree.—Special students may become candidates for a degree upon complying with all the entrance requirements as above set forth in reference to regular students. If a special student intends to become a candidate for a degree by clearing up his entrance requirements during his law studies, he must notify the dean of the Law School upon registration. Such students will be permitted to carry a limited amount of work in the College of Liberal Arts or the College of Science to enable them to clear up their entrance requirements in law.

Combined Curriculum in Arts and Law.—This combined course allows the student with a good record to complete the requirements for the degrees of bachelor of arts and bachelor of laws in six years. It is open only to those students who have maintained a uniformly good record for scholarship during the first three years of Liberal Arts.

The student is enrolled in the College of Liberal Arts during the first three years. If at the end of three years he has uniformly good record for scholarship and has earned 135 or more credits, including all the required work, he may for the fourth year register in the Law School for the first year's work in law and must earn in the College of Liberal Arts additional credits sufficient to make his total of arts and science credits amount to 144, and earn in the Law School at least 36 credits in the first year law work, to apply on his bachelor of arts degree, thus making his 180 credits required for the degree of bachelor of arts. The degree of bachelor of arts may be granted upon the completion of the fourth year.

The last two years of this combined course are devoted to completing the rest of the work in the Law School.

Students are advised to complete their full 144 credits in Liberal Arts by the end of the third year, so they can enter the law work clear in the fourth year.

Students from other schools entering this University with advanced standing may take advantage of this combined course, provided they are registered in the College of Liberal Arts for at least one full year's work and earn at least 45 credits in the University before entering the law work.

This privilege will not be extended to normal graduates attempting to graduate in two years nor to undergraduates of other colleges who enter this University with the rank of senior.

Thesis.—It is the desire of the faculty to encourage original investigation and research by the students. Each candidate for a degree is required to prepare and deposit with the dean of the Law School, before the beginning of the spring vacation of his senior year, a thesis of not less than thirty folios in length, upon some legal topic selected by the student and approved by the faculty. The student will be examined by the faculty upon this thesis. It must be printed or typewritten, and is to be kept permanently in the library of the Law School.

The Jaggard Prize.—Miss Anne Wright Jaggard, daughter of the late Edwin Ames Jaggard, LL.D., Justice of the Supreme Court of Minnesota, offers an annual prize of \$50 for the best thesis submitted by members of the senior class, candidates for the degree of bachelor of laws, upon a subject in the courses of history of the law or jurisprudence.

Summer Session of the Law School.—Courses are offered each summer by the Law School for both beginning and advanced students. Different courses are offered successive summers. This work counts toward a degree as a part of the regular instruction of the Law School. By increasing the number of periods per week, the equivalent of a quarter's work in the regular session is completed in each of the offered courses.

Instruction in Other Departments.—Students in the Law School may pursue studies, for which they are prepared, in other departments of the University without charge, other than the prescribed fee for excess hours, except that in laboratory courses the usual laboratory deposits will be required.

Degrees.—The degree of bachelor of laws (LL.B.) will be conferred on all students who comply with the entrance requirements for regular students stated hereinbefore, remain in residence in the Law School for three school years, successfully complete all the law work in the Law School, aggregating 135 credits, and comply with all the rules and regulations of the faculty and board of regents of this University.

Students admitted to advanced standing based upon credits earned at another law school may count that work toward graduation, subject to the restrictions heretofore stated.

Examination.—The members of each class are examined daily throughout the year in their studies, and may be subjected to written examinations at any time in the discretion of the faculty without notice. At the end of each quarter the members of each class are subject to written examination on the courses during the year, and their promotion is dependent on successfully passing such examination.

To receive the degree of bachelor of laws it is necessary to pass satisfactory examinations in the entire course of three years. Students who pass these examinations with distinguished excellence will receive the degree of bachelor of laws *cum laude*.

COURSES

For description of courses, see Departments of Instruction, printed elsewhere in this catalogue. (See Index).

COLLEGE OF MINES

THE FACULTY

HENRY SUZZALLO, Ph.D. (Columbia), LL.D. (California),	PRESIDENT
JOHN THOMAS CONDON, LL.M. (Northwestern),	DEAN OF FACULTIES
MILNOR ROBERTS, A.B. (Stanford),	Professor of Mining Engineering and Metallurgy; DEAN
JOSEPH DANIELS, S.B. (Massachusetts Institute of Technology), M.S. (Lehigh),	
.....	Associate Professor of Mining Engineering and Metallurgy
CLARENCE RAYMOND COREY, E.M. (Montana State School of Mines), A.M. (Columbia),	
.....	Assistant Professor of Mining Engineering and Metallurgy
HEWITT WILSON, Cer.E. (Ohio State University),	Assistant Professor of Ceramics
HARVEY L. GLENN, B.S. (Iowa State College),	Lecturer on Assaying of Bullion.
FREDERICK POWELL, E.M. (Columbia),	Lecturer on Gold Dredging
JOHN G. SCHONING, Foreman Miner in charge of Mine Rescue Training, U. S. Bureau of Mines, Mine Safety Station.	
HAROLD V. REDMOND,	Assistant in Metallurgy
GEORGE P. MCCORMICK,	Assistant in Mining
JAMES MCKIM,	Assistant in Ore Dressing
<hr/>	
JOHN THOMAS CONDON, LL.M. (Northwestern),	Professor of Law
HENRY KREITZER BENSON, Ph.D. (Columbia),	Professor of Chemical Engineering
TREVOR KINCAID, A.M. (Washington),	Professor of Zoology
FREDERICK ARTHUR OSBORN, Ph.D. (Michigan),	Professor of Physics
ROBERT EDOUARD MORITZ, Ph.D. (Nebraska), Ph.N.D. (Strassburg),	
.....	Professor of Mathematics
CARL EDWARD MAGNUSSON, E.E. (Minnesota), Ph.D. (Wisconsin),	
.....	Professor of Electrical Engineering and Dean of the College of Engineering
EVERETT OWEN EASTWOOD, C.E.A.M. (Virginia), S.B. (Massachusetts Institute of Technology),	Professor of Mechanical Engineering
DAVID CONNOLLY HALL, Sc.M., M.D. (Chicago),	Professor of Hygiene
CHARLES CHURCH MOHE, M.S., C.E. (Lafayette), M.C.E. (Cornell),	
.....	Professor of Civil Engineering
WILLIAM FRANKLIN ALLISON, C.E. (Cornell),	
.....	Professor of Municipal and Highway Engineering
CHARLES LEONARD PHILLIPS, Colonel C.A.C., U.S.A., (U.S. Military Academy), A.B. (Colby), C.E. (Maine),	Professor of Military Science and Tactics
LOREN DOUGLAS MILLMAN, A.B. (Michigan),	Associate Professor of English
CHARLES WILLIAM HARRIS, C.E. (Cornell),	Associate Professor of Civil Engineering
VANDEVEREER CUSTIS, Ph.D. (Harvard),	Associate Professor of Economics
GEORGE SAMUEL WILSON, B.S. (Nebraska),	Associate Professor of Mechanical Engineering
EDGAR ALLEN LOEW, B.S., E.E. (Wisconsin),	Associate Professor of Electrical Engineering
HENRY LOUIS BRAKEL, Ph.D. (Cornell),	Associate Professor of Engineering Physics
*CHARLES EDWIN WEAVER, Ph.D. (California),	Associate Professor of Geology
ALLEN FULLER CARPENTER, Ph.D. (Chicago),	Associate Professor of Mathematics
GEORGE IRVING GAVETT, B.S., (C.E.) (Michigan),	Assistant Professor of Mathematics
GEORGE E. GOODSPEED, S.B. (Massachusetts Institute of Technology),	
.....	Assistant Professor of Geology.
FRED HARVEY HEATH, Ph.D. (Yale),	Assistant Professor of Chemistry
CHRIS. G. DOBSON, E.M. (Montana State School of Mines),	
.....	Acting Instructor in Civil Engineering
.....	Instructor in Engineering Shops

ADVISORY BOARD COLLEGE OF MINES

UNIVERSITY OF WASHINGTON

ROY H. CLARKE, mining engineer,	Peyton Building, Spokane
JOHN ERIKSON, mine operator,	Erikson Building, Seattle
J. T. HEFFERNAN, president of the Heffernan Engine Works, mine operator,	108 Railroad Avenue South, Seattle
CHARLES HUSSEY, general manager of estate of John A. Finch, mine operator,	Empire State Building, Spokane
W. R. RUST, founder of the Tacoma Smelter, president of Tacoma Exploration Company,	Box 1454, Tacoma
NATHANIEL D. MOORE, general manager of Pacific Coast Coal Company,	Seattle

*Absent on leave.

SCOPE AND FACILITIES

Degrees.—The College of Mines offers specialized training in mining engineering, metallurgy, and ceramics. The four-year curricula lead to degrees as follows:

- I. Bachelor of science in mining engineering, B.S. (Min.E.)
- II. Bachelor of science in geology and mining, B.S. (Geol. and Min.)
- III. Bachelor of science in metallurgical engineering, B.S. (Met.E.)
- IV. Bachelor of science in coal mining engineering, B.S. (Coal Min. E.)
- V. Bachelor of science in ceramic engineering, B.S. (Cer. E.)

The degree of engineer of mines (E.M.) is given to graduates in mining engineering who have practiced their profession for at least three years and who present a satisfactory thesis. Graduates in metallurgy may receive the degree of metallurgical engineer (Met.E.) under similar conditions, and the appropriate advanced degrees are also open to graduates of the other curricula.

Mining and Metallurgical Industries Available for Study.—Excellent opportunities for becoming familiar with mining and metallurgical operations are open to students in the College of Mines. Mining machinery of the best type is in operation within easy reach of the University. Much of the heavy mining machinery used in the neighboring states and Alaska is built in the city of Seattle, while patented machines, such as drills and concentrating tables of all makes, are kept in stock and as working exhibits by the firms that supply the North Pacific coast regions. More than 40 eastern firms dealing in mining equipment make their Seattle branches the distributing center for the Pacific Northwest, British Columbia and Alaska. Methods important to the mining engineer are the operations of the steam shovels, which are now used largely in iron, copper and gold mining. The engineers in charge of these plants have given the mining students every opportunity to become familiar with the methods of planning and carrying on the work, and the same statement applies to the mine operators throughout the state.

A partial list of the other available works of interest includes coal mines and coke ovens, with the largest production west of the Rocky mountains; metal mines of gold, silver, copper, arsenic, antimony, iron, etc.; cement plants, several stone quarries and dressing works; clay mines, clay and pottery works; gravel and sand pits with large production and approved methods; a region of varied geology with many economic minerals; the Tacoma smelters and refineries; the U.S. assay office; the West Seattle steel plant of the Pacific Coast Steel Co., and several plants engaged in electro-metallurgical work.

Laboratories.—For description of mining, metallurgical and ceramic laboratories, see page 34.

Mining Society.—The Mining Society, affiliated with the American Institute of Mining and Metallurgical Engineers, has a membership composed of all students in the College. At the monthly meetings of the society addresses are made by prominent mining engineers, and papers descriptive of their summer work are presented by the student members.

MINING AND METALLURGICAL RESEARCH

The purpose of this department is to stimulate and encourage development in the mining, metallurgical and ceramic industries of Washington, the Pacific Northwest and Alaska by research in the special problems presented, and to solve the problems through the efforts of fellowship holders and others studying in the department.

Graduates from suitable technical courses at institutions of recognized standing, or men who present evidence of technical training which has fitted them to undertake investigations, are eligible to enroll in mining and metallurgical research. The degree of master of science may be granted to those students who, holding a suitable bachelor of science degree, complete investigative work in compliance with the University requirements for the master's degree. Although as much latitude as possible will be allowed in the choice of subjects for research, the general topics will be those which are of special importance to this region.

Research Fellowships.—In connection with the department, five research fellowships of \$780 annual value have been established. These fellowships are open to qualified graduates of scientific or technical courses in institutions of recognized standing. Applicants should send a copy of their record from the registrar's office of the college where they have been, or will be, graduated, and the names and addresses of at least three references who know their character, training and ability. Applications for these fellowships are due not later than June 1, and should be addressed to the Dean, College of Mines, Seattle, Washington.

Appointees to the fellowships report for duty on July 1, and are required to be on duty during the entire year, except that in case of reappointment for a second year, the fellowship holder is given a vacation from June 15 to July 1.

Fellowship holders are required to register as graduate students in the University of Washington and to become candidates for the degree of master of science in mining engineering, metallurgical engineering, or ceramic engineering, unless an equivalent degree has previously been earned.

Arthur A. Denny Fellowship.—In addition to the foregoing a fellowship of \$500 annual value is open to students in the College of Mines who are residents of the state of Washington. This fellowship is awarded on the bases of scholastic excellence and general merit, but only to those who need financial assistance. Applications must be made to the Dean of the College before March 15 preceding the academic year for which the fellowships are to be granted. The purpose of the fellowship is to encourage graduate work in the College.

Investigations of Problems.—The University will, under certain conditions, permit mining and metallurgical companies who have special problems for solution, to detail a representative to work on such problems, or to meet the expense of engaging a man to do so. Experiments which can be carried on as readily in commercial laboratories and which do not require direction from the Bureau's experts are not undertaken. The research work shall be under the direction of the department, and complete records of all the data obtained in the investigation of the problems shall be filed with the department which shall have the right to publish this information for the benefit of the mining and metallurgical industry.

Instruction for Coal Mining Men.—Miners taking the rescue training also receive instruction in the College of Mines on the subjects of mine gases, explosions and the origin and distribution of Pacific Coast and Alaska coals. Laboratory experiments are carried on to show the methods of analyzing coals and determining the uses to which they may be put. The methods of testing for permissible explosives at the Pittsburgh station and the safe methods of charging, tamping, and firing are explained. Coal men interested in the washing of coals are given full practice with the several types of apparatus used for this purpose.

Winter Session for Mining Men.—Applicants must be at least twenty years old. Admission to classes is without examination. For schedule of courses see pages 155, 156.

REQUIREMENTS FOR ADMISSION

Full information regarding requirements for admission, registration, and expenses may be found on pages 40, 48, 49.

CURRICULA OF THE COLLEGE OF MINES

MINING ENGINEERING (OPTION I)

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Mathematics 51	4	Mathematics 52	4	Mathematics 53	4
Civil Engineering 1	3	Civil Engineering 2	3	Civil Engineering 13	3
Civil Engineering 11	3	Civil Engineering 12	3	Civil Engineering 21	3
Chemistry 1 or 21	5	Chemistry 2 or 22	5	Chemistry 3 or 23	5
Mil. Sci. or Phys. Ed. ...	1½	Mil. Sci. or Phys. Ed. ...	1½	Mil. Sci. or Phys. Ed. ...	1½

SECOND YEAR

Mathematics 61	3	Mathematics 62	3	English 4	3
Physics 97	5	Physics 98	5	Physics 99	5
Geology 1	5	Geology 21	5	Geology 120	3
Mining 51	3	Civil Engineering 27	3	Chemistry 111	5
Mil. Sci. or Phys. Ed. ...	1½	Mil. Sci. or Phys. Ed. ...	1½	Mil. Sci. or Phys. Ed. ...	1½

‡Mining Practice in Summer Vacations.

THIRD YEAR

Civil Engineering 131	3	Civil Engineering 132	3	Geology 122	2
Geology 123	3	Electrical Eng. 101-102	6	Electrical Eng. 121-122	6
Mining 101	3	Geology 124	5	Metallurgy 102	5
Metallurgy 101	5	Metallurgy 153	3	Mining 106	2
Mechanical Eng. 54	1				

FOURTH YEAR

Mining 151	3	Mining 154	2	Mining 152	5
Mining 153	2	Mining 162	3	Mining 155	1
Metallurgy 155	3	Geology 127	5	Mining 182	3
Metallurgy 162	2	Mining 103	1		
Electives	5	Electives	4	Electives	6

GEOLOGY AND MINING (OPTION II)

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Mathematics 51	4	Mathematics 52	4	Mathematics 53	4
Civil Engineering 1	3	Civil Engineering 2	3	Civil Engineering 13	3
Civil Engineering 11	3	Civil Engineering 12	3	Civil Engineering 21	3
Chemistry 1 or 21	5	Chemistry 2 or 22	5	Chemistry 3 or 23	5
Mil. Sci. or Phys. Ed. ...	1½	Mil. Sci. or Phys. Ed. ...	1½	Mil. Sci. or Phys. Ed. ...	1½

SECOND YEAR

Mathematics 61	3	Mathematics 62	3	Geology 4	3
Physics 97	5	Physics 98	5	Physics 99	5
Geology 1	5	Geology 21	5	Geology 120	3
Mining 51	3	Civil Engineering 27	3	Chemistry 111	5
Mil. Sci. or Phys. Ed. ...	1½	Mil. Sci. or Phys. Ed. ...	1½	Mil. Sci. or Phys. Ed. ...	1½

‡Practice in mining, metallurgy, geology or ceramics, accompanied by a report on the work performed is required of all students during a summer vacation following the sophomore or junior year.

COLLEGE OF MINES

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THIRD YEAR

Autumn Quarter	Credit	Winter Quarter	Credit	Spring Quarter	Credit
Civil Engineering 181 .. 3		Civil Engineering 182 .. 3		Geology 122	2
Geology 123	3	Geology 124	3	Geology 125	2
Mining 101	3	Metallurgy 103	3	Metallurgy 102	5
Metallurgy 101	5	Metallurgy 153	3	Mining 106	2
Mechanical Eng. 54	1	Electives	3	English 4	3

†Mining practice in summer vacations.

FOURTH YEAR

Mining 151	3	Mining 154	2	Mining 152	5
Mining 153	2	Mining 162	3	Mining 155	1
Metallurgy 162	2	Geology 127	5	Geology 183	5
Geology 126	3	Mining 103	1	Electives	4
Electives	5	Electives	4		

METALLURGICAL ENGINEERING (OPTION III)

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Mathematics 51	4	Mathematics 52	4	Mathematics 53	4
Civil Engineering 1	3	Civil Engineering 2	3	Civil Engineering 13	3
Civil Engineering 11	3	Civil Engineering 12	3	Civil Engineering 21	3
Chemistry 1 or 21	5	Chemistry 2 or 22	5	Chemistry 3 or 23	5
Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%

SECOND YEAR

Mathematics 61	3	Mathematics 62	3	English 4	3
Physics 97	5	Physics 98	5	Physics 99	5
Geology 1	5	Geology 21	5	Geology 120	3
Mining 51	3	Civil Engineering 27	3	Chemistry 111	5
Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%

THIRD YEAR

Civil Engineering 181	3	Civil Engineering 182	3	Electrical Eng. 121-122 ..	6
Mining 101	3	Electrical Eng. 101-102 ..	6	Metallurgy 162	5
Metallurgy 101	3	Metallurgy 103	3	Mining 106	2
Mechanical Eng. 54	1	Metallurgy 153	3	Electives	2
Electives	3				

†Mining Practice in Summer Vacations.

FOURTH YEAR

Mining 151	3	Mining 154	2	Mining 152	5
Mining 153	2	Metallurgy 163	2	Mining 155	1
Metallurgy 164	3	Metallurgy 165	3	Metallurgy 166	3
Metallurgy 155	3	Geology 127	5	Electives	6
Metallurgy 162	2	Mining 103	1		
		Electives	3		

COAL MINING ENGINEERING (OPTION IV)

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Mathematics 51	4	Mathematics 52	4	Mathematics 53	4
Civil Engineering 1	3	Civil Engineering 2	3	Civil Engineering 13	3
Civil Engineering 11	3	Civil Engineering 12	3	Civil Engineering 21	3
Chemistry 1 or 21	5	Chemistry 2 or 22	5	Chemistry 3 or 23	5
Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%

†Practice in mining, metallurgy, geology or ceramics, accompanied by a report on the work performed is required of all student during a summer vacation following the sophomore or junior year.

SECOND YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Mathematics 61	3	Mathematics 62	3	Geology 4	3
Physics 97	5	Physics 98	5	Physics 99	5
Geology 1	5	Geology 21	5	Geology 120	3
Mining 51	3	Civil Engineering 27	3	Chemistry 111	5
Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%

THIRD YEAR

Civil Engineering 131 ..	3	Civil Engineering 132 ..	3	Electrical Eng. 121-122 ..	6
Mining 101	3	Electrical Eng. 101-102 ..	6	Metallurgy 102	5
Mechanical Eng. 81	3	Mining 122	3	English 4	3
Mechanical Eng. 82	3	Metallurgy 103	3	Mining 106	2
Mechanical Eng. 83	3				

‡Mining Practice in Summer Vacations.

FOURTH YEAR

Mining 151	3	Mining 154	2	Mining 155	1
Mining 153	2	Mining 171	3	Mining 182	3
Metallurgy 155	3	Mining 176	5	Mining 178	2
Mining 170	3	Mining 103	1	Electives	9
Mechanical Eng. 54	1	Electives	4		
Electives	3				

CERAMIC ENGINEERING (OPTION V)

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Mathematics 51	4	Mathematics 52	4	Mathematics 53	4
Civil Engineering 1	3	Civil Engineering 2	3	Civil Engineering 13	3
Civil Engineering 11	3	Civil Engineering 12	3	Civil Engineering 21	3
Chemistry 1 or 21	5	Chemistry 2 or 22	5	Chemistry 3 or 23	5
Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%

SECOND YEAR

Mathematics 61	3	Mathematics 62	3	Ceramics 90	3
Physics 97	5	Physics 98	5	Physics 99	5
Geology 1	5	Geology 21	5	Geology 120	3
Mining 51	3	Civil Engineering 27	3	Chemistry 111	5
Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%	Mil. Sci. or Phys. Ed. ..	1%

THIRD YEAR

Civil Engineering 131 ..	3	Civil Engineering 132 ..	3	English 4	3
Mining 101	3	Metallurgy 153	2	Metallurgy 102	5
Chemistry 181 Elective ..	3	Chemistry 182 Elective ..	3	Ceramics 102	3
Ceramics 100	3	Ceramics 101	3	Ceramics 110	2
Ceramics 104	3	Ceramics 105	3	Mining 106	2

‡Mining Practice in Summer Vacations.

FOURTH YEAR

Ceramics 121	5	Ceramics 122	5	Ceramics 123	5
Ceramics 131	3	Ceramics 182	3	Ceramics 133	2
Electives	7	Mining 103	1	Electives	8
		Electives	6		

COURSES

For description of courses, see Departments of Instruction, printed elsewhere in this catalogue. (See Index).

‡Practice in mining, metallurgy, geology or ceramics, accompanied by a report on the work performed is required of all students during a summer vacation following the sophomore or junior year.

WINTER SESSION FOR MINING MEN

The twenty-sixth annual winter session for mining men will open on January 4, 1923, and will continue until March 21. During this period each year twelve of the instructors in mining engineering offer a course for the benefit of persons interested in prospecting, mining, milling, assaying or smelting. A five-day excursion to a mining district is offered at the close of the session. Admission to the class is without examination. No previous preparation, training, or mining experience is necessary to enter the course, other than ability to read and write English. Many practical men with an interest in some branch of mining but with little education have obtained satisfactory results from the course; others with a college education and mining experience have gained much up-to-date training and information. The past experience and future aims of each student are taken into consideration, and the character of his work arranged accordingly. Prospectors and mining men may bring in their own ores and minerals for study, for assay, or for concentration tests, by ordinary wet methods or by flotation.

Instruction is given by lectures, laboratory exercises, and visits to mines and plants in operation. Each year a group of mining men is engaged to give special lectures during the period of the short session. These men represent the fields of coal, quartz and placer mining, dredging, milling and smelting.

Three general groups of studies are offered: (1) quartz mining; (2) placer mining; (3) coal mining.

1. *Quartz Mining*.—For men interested in quartz or lode mining, the course outlined consists of geology, mineralogy, mining, milling, field trips, mining law, surveying, chemistry and fire assaying. Optional subjects are forge and foundry, mine-timber framing, and mine rescue and first-aid training.

2. *Placer Mining*.—The placer mining group embraces surveying, hydraulic mining, placer mining, geology, mineralogy, mining, milling, mining law, and forge and foundry.

3. *Coal Mining*.—For coal miners the courses consist of coal analysis, coal washing, gas and lamp testing, mine rescue and first-aid training, chemistry, geology, mineralogy and surveying.

GENERAL INFORMATION

Students need not enroll for all the subjects listed in a group, changes in the choice of subjects in each group may be made, depending on individual circumstances. For students who return a second year, special courses are arranged in continuation of their previous work.

A tuition fee of \$20 is required of all students registering in the winter mining session, and each student makes a deposit for laboratory supplies actually used and also buys his own books. The deposits in the various courses are stated under the description of the subjects. Books and supplies cost on the average about \$10. The total cost of the full course for three months is less than \$40 in the placer group and \$60 in the quartz mining studies. All deposits are made at the beginning of the course.

Rooms and board may be obtained in the university district at reasonable costs. The University operates a cafeteria, and several good restaurants are located close to the University. A list of boarding and rooming-houses is kept on file at Mines hall for the benefit of prospective students. The use of library, gymnasium, showers and the privilege of attending lectures, concerts and assemblies, are open to all winter session students.

Students who satisfactorily complete a course of study are given upon request a certificate stating the amount and character of the work done.

TIME SCHEDULE, WINTER SESSION, COLLEGE OF MINES

	8:00	9:00	10:00	11:00	1:00-4:00
Mon.	Surveying DOBSON Mines Hall	Geology and Mineralogy LANDES 107 Science Hall		Mining ROBERTS Mines Hall	Surveying Field Work, Mines Hall or Forge and Foun- dry. KANE Foundry Bldg.
Tues.	Mining Law O'BRYAN 309 Commerce	Mining ROBERTS Mines Hall	Chemistry BENSON 307 Bagley	Milling DANIELS Mines Hall	Mining & Milling Laboratory Mines Hall
Wed.	Surveying DOBSON Mines Hall	Geology and Mineralogy LANDES 107 Science Hall		Fire Assaying COREY Mines Hall	Fire Assaying Laboratory COREY Mines Hall
Thurs.	Mining Law O'BRYAN 309 Commerce	Mining ROBERTS Mines Hall	Chemistry BENSON 307 Bagley	Milling DANIELS Mines Hall	Fire Assaying Laboratory COREY Mines Hall
Fri.		Geology and Mineralogy LANDES 107 Science Hall		Milling DANIELS Mines Hall	Chemistry Labor- atory, BENSON Bagley Hall
Sat.	Surveying field work or field trips. (Time of other courses to be arranged).				

For more detailed information apply to the dean of the College of Mines.

COLLEGE OF PHARMACY

THE FACULTY

HENRY SUZZALLO, Ph.D. (Columbia), LL.D. (California),PRESIDENT
 JOHN THOMAS CONDON, LL.M. (Northwestern),DEAN OF FACULTIES
 CHARLES WILLIS JOHNSON, Ph.C., Ph.D. (Michigan),
 -----Professor of Pharmaceutical Chemistry: DEAN AND STATE CHEMIST
 *ARTHUR WILSON LINTON, B.S. (Michigan), M.S. (Washington),
 -----Associate Professor of Pharmacy
 CORNELIUS OSSEWARD, Ph.G., (New York College of Pharmacy, Dept. of Columbia University)
 Ph.C., (Northwestern University),Acting Associate Professor of Pharmacy
 ELDIN VERNE LYNN, Ph.D., (Wisconsin),
 -----Assistant Professor of Pharmacology and Chemistry
 FOREST J. GOODRICH, Ph.C., M.S., (Washington),Instructor in Pharmacy
 OMEGA HILTON, Ph.C., M.S., (Washington),Instructor in Pharmacy
 JEAN ROBIN WILKES, Ph.C., B.S., (Washington),Assistant State Chemist
 GEORGE HERBERT NEEDHAM,Assistant State Chemist
 JAMES THOMPSON, B.S., (Minnesota),Director of Drug Garden
 EVA SABINE CARR, Ph.C., B.S., (Washington),Teaching Fellow in Pharmacy
 HELEN ARKLEY, Ph.C., B.S., (Washington),Arthur A. Denny Fellowship for 1921-22

HENRY K. BENSON, Ph.D., (Columbia),Professor of Chemistry
 FREDERICK MORGAN PADELFORD, Ph.D., (Yale),
 -----Professor of English and Dean of the Graduate School
 FREDERICK ARTHUR OSBOEN, Ph.D., (Michigan),Professor of Physics
 PIERRE JOSEPH FREIN, Ph.D., (Johns Hopkins),Professor of French
 THEODORE CHRISTIAN FRYE, Ph.D., (Chicago),Professor of Botany
 ROBERT EDOUARD MORITZ, Ph.D., (Strassburg),Professor of Mathematics
 LESLIE J. AYER, J.D., (Chicago),Professor of Law
 STEPHEN IVAN MILLER, JR., A.B., (Stanford), LL.B., (Michigan),
 -----Professor of Economics and Dean of the College of Business Administration
 JOHN WEINZIRL, DR.P.H., (Harvard),Professor of Bacteriology
 GEORGE BURTON RIGG, Ph.D., (Chicago),Associate Professor of Botany
 ERNEST OTTO ECKELMAN, Ph.D., (Heidelberg),Assistant Professor of German
 ELI VICTOR SMITH, Ph.D., (Northwestern),Assistant Professor of Zoology
 * Died January 26, 1922.

THE COLLEGE AND ITS EQUIPMENT

The College of Pharmacy was organized in 1894 to provide an opportunity for young men and women to become well trained practical pharmacists. The work of the original two-year course has been extended to three, four and five year courses. In the three-year course complete training is offered in technical and commercial pharmacy; in the four-year course an opportunity for training in more advanced scientific pharmacy together with a liberal training in other sciences and in languages. The five-year or graduate course offers an opportunity to do research work in one of the most fertile fields of modern science.

The students in pharmacy share the advantage and enjoy the spirit of one of the foremost educational institutions of the Pacific Coast.

REQUIREMENTS TO PRACTICE PHARMACY IN THE STATE OF WASHINGTON

The Administrative Code passed by the 1921 legislature abolished the Board of Pharmacy and placed the registration of pharmacists under a new department created by the Code and called the Department of Licenses.

The Department of Licenses will continue to enforce the requirements for registration as pharmacists that have been enforced by the Board of Pharmacy since 1914.

These requirements are;—1. Graduation from an approved College of Pharmacy.

- 2, (a) Graduates of two-year courses are required to have two years of practical experience.
- (b) Graduates of three-year courses are required to have 18 months of practical experience.
- (c) Graduates of four-year courses are required to have 12 months of practical experience.

Graduates of the University of Washington College of Pharmacy are registered *without examination* upon payment of a fee of \$8. Graduates who have not had the required amount of practical experience are registered as assistant pharmacists and upon completing the required amount of practical experience obtain full registration as pharmacists.

Higher Standards in Pharmacy.—The minimum course of study in the College of Pharmacy is *Three Years*. The aim of this course is to give thorough scientific training for retail pharmacists; if the student desires, he may elect certain studies in the College of Business Administration that will better prepare him for the business side of retail pharmacy.

Retail pharmacy is recognized both as a profession and a business. The College of Pharmacy desires to meet as far as possible these two conditions. Special attention is given, primarily, to a thorough scientific training for the compounding and dispensing of drugs and medicines; such business training will be included as time will permit in the three-year course. Students desiring further business training can complete, in one more year, the four-year combined scientific and business course. In this four-year course the student receives training in economics, psychology, business law, accounting, advertising, salesmanship and business management. All of this training is useful in the every day life of the business side of retail pharmacy.

Students desiring more extensive training in scientific pharmacy may complete the three-year course by including advanced work in prescriptions, manufacturing pharmacy, toxicology, physiological chemistry and bacteriology. Graduates of this course are trained for positions in strictly prescription stores and for work in clinical diagnosis.

Graduates of the four-year scientific course are trained for positions as expert laboratory workers in both State and Federal laboratories, bacteriologists for physicians, City Boards of Health, and for State and Federal laboratories, manufacturing pharmacists and chemists for large pharmaceutical houses, and as teachers in the colleges of pharmacy.

It should be noted therefore that the College sets a high standard for pharmaceutical training and that a number of opportunities are open to graduates who take the time to thoroughly prepare themselves for responsible positions.

Preparation for Medicine.—Students taking the four-year scientific course have the opportunity of electing studies that will give them clear entrance to the best medical colleges. Pharmaceutical training is an excellent preparation for medicine. It gives the student a knowledge of drugs and medicines that can be obtained in no other way. In addition the graduate in pharmacy who finally completes medicine has the benefit of the two professions.

The American Conference of Pharmaceutical Faculties.—The College of Pharmacy is a member of the American Conference of Pharmaceutical Faculties. The objects of the conference are: to promote closer relations be-

tween the several colleges of pharmacy of the United States, to standardize pharmaceutical education and to encourage a higher standard of proficiency for members of the profession.

GENERAL INFORMATION

Garden of Medicinal Plants.—The College of Pharmacy maintains on the campus a garden in which plants of pharmaceutical importance are cultivated. The area and scope of this garden have been gradually extended, until the college now has a complete collection of medicinal plants which furnishes valuable material for classes in botany, materia medica and drug assay.

A specialist in medicinal plant cultivation, formerly associated with the U. S. Bureau of Plant Industry, is a member of the staff of the College of Pharmacy and is in charge of the garden of medicinal plants. Persons interested in medicinal plant cultivation are urged to write Mr. James Thompson, College of Pharmacy, University of Washington, Seattle, for desired information.

Service to Pharmacists of the State.—It is the desire of the college to render every possible service to the pharmacists of the state. We therefore invite the pharmacists to write us in regard to their prescription difficulties. Many pharmacists are now availing themselves of this privilege, and it is our wish to extend this service to the entire profession. Send your prescriptions with a history of difficulties encountered to Professor Cornelius Osseward, who is in charge of prescription courses in the College of Pharmacy.

Food and Drug Analysis.—The enactment of the Food and Drug Act by Congress, and of similar legislation by most of the states (Washington included), has given great importance to pharmaceutical education. It is at once apparent that a knowledge of drugs is equally important with chemistry in the administration and enforcement of this legislation. The graduate in chemistry is not wholly qualified to act as a food and drug inspection chemist for the government, states, private individuals, and corporations, if he is not trained in those subjects included in the collective name of pharmacy. These allied subjects are: Theory and practice of pharmacy, manufacturing pharmacy, drug assaying, pharmaceutical botany, study of the United States Pharmacopoeia and National Formulary, pharmacognosy, materia medica and therapeutics, etc. A great many pharmaceutical chemists are needed to carry out the analytical processes involved in the enforcement of this legislation, but the number of men adequately trained is very limited. Students with high school training are urged to consider these opportunities and to prepare themselves for such positions. The Dean of the College of Pharmacy is chemist for the Washington State Department of Agriculture and is also in close touch with the government food and drug work. Courses are offered that will fit students for this line of work.

Women in Pharmacy.—The opportunities for women in pharmacy are just as great as for men. Women are finding a place in retail pharmacy and are becoming noted for the satisfaction they give in both the scientific and business side of the average drug store. Women graduates of the four year course are also giving excellent satisfaction as food and drug chemists, bacteriologists and as teachers in colleges of pharmacy.

Library Facilities.—A branch of the university library containing books and current publications on pharmacy and chemistry is maintained in the pharmacy building. Practically all the domestic and some foreign journals on pharmacy are received by the college. The student is expected to make use of the library and to report from time to time on current topics of interest.

The Arthur A. Denny Fellowship.—The College of Pharmacy is indebted to the Arthur A. Denny estate for a fellowship that pays \$500 per year to the student selected for this honor. The fellowship is granted each year to a graduate of the four-year course in pharmacy. The graduate is selected on the basis of excellence in scholarship and promise of ability to do research work in some subject of pharmaceutical importance.

Observation Trips.—The observation visits made each year by the classes in pharmacy to the various large manufacturing and wholesale establishments of Seattle and to the large retail stores are an important feature of the work of the college. Among the places visited during the year 1921-1922 were Stewart & Holmes Drug Company, branch houses of Parke, Davis & Co., H. K. Mulford Company and some of the leading prescription and commercial pharmacies of the city. Also to the hydrastis and ginseng farm of Mr. C. E. Thorpe, situated near the University campus.

1. ADMISSION TO THE THREE-YEAR COURSE LEADING TO THE DEGREE OF PHARMACEUTICAL CHEMIST.

For admission to the three-year course, no subjects are prescribed beyond the general requirements for freshman standing in the University. (See page 43).

2. ADMISSION TO THE FOUR-YEAR COURSE, LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN PHARMACY.

For admission to this course a candidate must present the following credits, in the fifteen units required for freshman standing in the University:

2 units in one foreign language.

1 unit in one of the following sciences: physics, chemistry, botany, zoology, physiology, general biology.

3. ADMISSION TO THE FIVE-YEAR COURSE LEADING TO THE DEGREE OF MASTER OF SCIENCE IN PHARMACY.

Candidates for the degree of master of science, must have received the bachelor's degree from this college or from some other college of equal rank maintaining a four-year course which is the equivalent of the course at this institution.

4. STUDENTS NOT CANDIDATES FOR DEGREES.

Persons over twenty-one years of age, who present evidence of adequate preparation, may be admitted as special students. In general a student from an accredited high school will not be admitted as a special if he has been in attendance at high school during the previous year.

Applicants for admission as specials should file their applications and credentials with the registrar at least four weeks before the beginning of the quarter in which they wish to attend. Blanks for this purpose may be obtained from the registrar at any time.

DEGREES

1. The degree of pharmaceutical chemist (Ph.C.) will be conferred upon any student who has complied with the entrance conditions and has completed the three-year course.

2. The degree of bachelor of science (B.S.) will be conferred upon any student who has fulfilled the entrance requirements and has completed either the four-year scientific course or the combined scientific and business course. This degree with honors may be conferred upon a student of the College of Pharmacy if recommended for this distinction by the pharmacy faculty.

3. The degree of master of science in pharmacy (M.S.) will be conferred upon any graduate of the four-year course who has completed at least one year of graduate work and has presented a satisfactory thesis.

NOTE—Students who have entered as candidates for the two-year degree of Graduate in Pharmacy (Ph.G.) prior to September, 1921, have the right to complete the requirements for this degree.

CURRICULA REQUIRED FOR GRADUATION

1. A three-year course which prepares its graduates for responsible positions as practical pharmacists. Opportunity is given in this course for training in business law, advertising, accounting, advanced work in pharmacy, bacteriology and chemistry.

2. A four-year scientific course which offers a well-rounded scientific and liberal training. Graduates of this course are prepared for positions as, (a) practical and manufacturing pharmacists; (b) manufacturing and technical chemists; (c) bacteriologists; (d) teachers in colleges of pharmacy; (e) food and drug inspection chemists and bacteriologists in the United States Civil Service; (f) pharmaceutical journalism.

Graduates of the four-year course have clear entrance to the best medical colleges and are well equipped to carry on their medical studies.

3. A four-year combined scientific and business course which includes the regular pharmacy work of the three-year course together with advanced training in pharmacy, and courses in the College of Business Administration and Schools of Journalism and Law which insures the student a thorough business training. Special attention will be given to courses in business law, advertising, accounting, salesmanship, insurance, money and banking and business organization. This course is designed to produce well trained men for either retail or wholesale pharmacy.

4. A five-year course offers opportunity to the four-year graduate to do graduate and research work in some line of scientific pharmacy and graduate work in some branch of allied science. Graduates of this course are prepared for responsible positions in many different lines of work.

1. WITH DEGREE OF PHARMACEUTICAL CHEMIST. (Three-Year Course).

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credit
Pharmacy 1	5	Pharmacy 2	5	Pharmacy 3	5
Chemistry 8	5	Chemistry 9	5	Chemistry 10	5
Physiology 7	5	Botany 13	5	Botany 14	4
Mil. Sci. or Phys. Ed. ...	1½	Mil. Sci. or Phys. Ed. ...	1½	Pharmacy 4	2
				Mil. Sci. or Phys. Ed. ...	1½

SECOND YEAR

Chemistry 37	5	Chemistry 38	5	Chemistry 39	5
Pharmacy 5	5	Pharmacy 6	5	Pharmacy 7	4
Pharmacy 9	2½	Pharmacy 10	2½	Pharmacy 11	3½
English 1	3	Pharmacy 12	3	Pharmacy 13	3
Mil. Sci. or Phys. Ed. ...	1½	Mil. Sci. or Phys. Ed. ...	1½	Pharmacy 15	1
				Mil. Sci. or Phys. Ed. ...	1½

THIRD YEAR

Pharmacy 101	2	Pharmacy 102	2	Pharmacy 103	2
Pharmacy 117	2	Pharmacy 118	2	Bacteriology 101	3½
Pharmacy 108	2½	Pharmacy 119	2		
Approved Electives	9-10	Approved Electives	9-10	Approved Electives	9-10

Total scholastic hours for graduation—135 plus 10 hours military or physical education. Electives in junior year may be arranged to meet requirements of either four-year course.

2. WITH DEGREE OF BACHELOR OF SCIENCE. (Four-Year Scientific Course).

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Pharmacy 1	5	Pharmacy 2	5	Pharmacy 3	5
Chemistry 8	5	Chemistry 9	5	Chemistry 10	5
Physiology 7	5	Botany 13	5	Botany 14	4
Mil. Sci. or Phys. Ed... 1%		Mil. Sci. or Phys. Ed... 1%		Pharmacy 4	2
				Mil. Sci. or Phys. Ed... 1%	

SECOND YEAR

Chemistry 37	5	Chemistry 38	5	Chemistry 39	5
Pharmacy 5	5	Pharmacy 6	5	Pharmacy 7	4
Pharmacy 9	5	Pharmacy 10	5	Pharmacy 11	4
English 4	3	Pharmacy 12	3	Pharmacy 13	3
Mil. Sci. or Phys. Ed... 1%		Mil. Sci. or Phys. Ed... 1%		Pharmacy 15	1
				Mil. Sci. or Phys. Ed... 1%	

THIRD YEAR

Pharmacy 101	2	Pharmacy 102	2	Pharmacy 103	2
Pharmacy 117	2	Pharmacy 118	2	Bacteriology 101	2
Pharmacy 100	2	Pharmacy 119	2		
Language (Mod. Foreign) 5		Language (Mod. Foreign) 5		Language (Mod. Foreign) 5	
Laboratory Science ... 4-5		Laboratory Science ... 4-5		Laboratory Science ... 4-5	

FOURTH YEAR

Language (Mod. Foreign) 5	Language (Mod. Foreign) 5	Approved Elective	5
Physics	Physics	Approved Elective	5
Laboratory Science ... 4-5	Laboratory Science ... 4-5	Approved Elective	5

The student is required to take 25 hours of one modern foreign language or 30 hours (15 each) if two languages are taken.

The elective work in science may be varied so as to prepare students for: (a) Entrance to colleges of medicine; (b) manufacturing pharmacists and chemists; (c) food and drug chemists; (d) bacteriologists; or (e) physiological chemists.

Total scholastic hours for graduation—180 plus 10 hours in military or physical education.

3. WITH DEGREE OF BACHELOR OF SCIENCE. (Four-Year Combined Scientific and Business Course.)

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Pharmacy 1	5	Pharmacy 2	5	Pharmacy 3	5
Chemistry 8	5	Chemistry 9	5	Chemistry 10	5
Physiology 7	5	Botany 13	5	Botany 14	4
Mil. Sci. or Phys. Ed... 1%		Mil. Sci. or Phys. Ed... 1%		Pharmacy 4	2
				Mil. Sci. or Phys. Ed... 1%	

SECOND YEAR

Chemistry 37	5	Chemistry 38	5	Chemistry 39	5
Pharmacy 5	5	Pharmacy 6	5	Pharmacy 7	4
Pharmacy 9	5	Pharmacy 10	5	Pharmacy 11	4
English 4	3	Pharmacy 12	3	Pharmacy 13	3
Mil. Sci. or Phys. Ed... 1%		Mil. Sci. or Phys. Ed... 1%		Pharmacy 15	1
				Mil. Sci. or Phys. Ed... 1%	

THIRD YEAR

Pharmacy 101	2	Pharmacy 102	2	Pharmacy 103	2
Pharmacy 117	2	Pharmacy 118	2	Bacteriology 101	2
Pharmacy 100	2	Pharmacy 119	2	Economics 2	3
Psychology 1	5	Approved Elective	5	Approved Elective	2
Bus. Admin. 54 (Law) .. 3		Bus. Admin. 55 (Law) .. 3		Bus. Admin. 56 (Law) .. 3	
Pharmacy 125	1	Pharmacy 126	1	Pharmacy 127	1

FOURTH YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Bus. Admin. 11 (Acc'tg)	5	Bus. Admin. 12 (Acc'tg)	5	Approved Electives	5
Bus. Ad. 138 (Selling)	5	Bus. Ad. 137 (Admin'g)	5	Approved Electives	5
Approved Electives	5	Approved Electives	5	Approved Electives	5

Total scholastic hours for graduation—180 plus 10 hours of military or physical education.

Attention of the student is called to business administration courses number 6, Business Correspondence; 57, Money and Banking; 106, Economics of Markets; 126, Commercial Credits; 141, Fire Insurance; 157, Income Tax as desirable electives.

4. WITH DEGREE OF MASTER OF SCIENCE IN PHARMACY. (Five-Year Course).

Graduates of the four-year course may continue work for the master's degree as follows:

Not more than 22 credits allowed outside of the department of pharmacy. Election may be made in one or more of the following studies: Bacteriology, 8 to 22 credits; botany, 4 to 22 credits; physics, 10 to 22 credits; chemistry, 5 to 22 credits; zoology, 4 to 12 credits.

Not less than 23 credits shall be elected in the department of pharmacy. At least 12 credits of the major work must be a research problem and the preparation of a thesis. Examination and thesis must conform to the regulations of the Graduate School.

5. WITH DEGREE OF DOCTOR OF PHILOSOPHY.

Students wishing to take the degree of doctor of philosophy with the thesis in the pharmaceutical field, shall take it under the same regulations as in the department of chemistry, writing the thesis under one of the pharmaceutical members of the department of chemistry. Prospective candidates for this degree should write for Graduate School Bulletin.

COURSES

For description of courses, see Departments of Instruction, printed elsewhere in this catalogue. (See Index).

GRADUATE SCHOOL

THE FACULTY

HENRY SUZZALLO, Ph.D. (Columbia), LL.D. (California)	PRESIDENT
JOHN THOMAS CONDON, LL.M. (Northwestern)	DEAN OF FACULTIES
FREDERICK MORGAN PADELFORD, Ph.D. (Yale)	Professor of English; DEAN
HENRY LANDES, A.M. (Harvard, Professor of Geology and Mineralogy; Dean of the College of Science.	
EDMOND STEPHEN MEANY, M.L. (Wisconsin)	Professor of History
J. ALLEN SMITH, Ph.D. (Michigan)	Professor of Political Science
CAROLINE HAVEN OBER	Professor of Spanish
TREVOR KINCAID, A.M. (Washington)	Professor of Zoology
MILNOR ROBERTS, A.B. (Stanford), Professor of Mining Engineering and Metallurgy; Dean of the College of Mines.	
FREDERICK ARTHUR OSBORN, Ph.D. (Michigan), Professor of physics; Director of Physics Laboratories.	
WILLIAM SAVERY, Ph.D. (Harvard)	Professor of Philosophy
DAVID THOMSON, B.A. (Toronto)	Professor of Latin; Dean of the College of Liberal Arts
CHARLES WILLIS JOHNSON, Ph.D. (Michigan), Professor of Pharmaceutical Chemistry; Dean of the College of Pharmacy.	
PIERRE JOSEPH FREIN, Ph.D. (Johns Hopkins)	Professor of French
THEODORE CHRISTIAN FRIE, Ph.D. (Chicago)	Professor of Botany
ROBERT EDOUARD MORITZ, Ph.D. (Nebraska), Ph.D. (Strassburg), Professor of Mathematics.	
CARL EDWARD MAGNUSSON, Ph.D. (Wisconsin), B.E. (Minnesota), Professor of Electrical Engineering; Dean of the College of Engineering.	
EVERETT OWEN EASTWOOD, C.E., M.A. (Virginia), S.B. (Massachusetts Institute of Technology), Professor of Mechanical Engineering.	
WILLIAM ELMER HENRY, A.M. (Indiana)	Librarian and Director of the Library School
HERBERT HENRY GOWEN, D.D. (Whitman), F.R.G.S., F.R.S.A., Professor of Oriental History, Literature and Institutions.	
OLIVER HUNTINGTON RICHARDSON, Ph.D. (Heidelberg)	Professor of European History
CHARLES CHURCH MORE, M.S., C.E. (Lafayette), M.C.E. (Cornell), Professor of Civil Engineering.	
HENRY KREITZER BENSON, Ph.D. (Columbia)	Professor of Chemical Engineering
JOHN WEINZIRL, Ph.D. (Wisconsin)	Professor of Bacteriology
HUGO WINKENWERDER, M.F. (Yale)	Professor of Forestry; Dean of the College of Forestry
VERNON LOUIS PARRINGTON, A.B. (Harvard), A.M. (Emporia)	Professor of English
FREDERICK ELMER BOLTON, Ph.D. (Clark), Professor of Education; Dean of the School of Education.	
EDWIN JOHN VICKNER, Ph.D. (Minnesota)	Professor of Scandinavian Languages
EFFIE ISABEL RAITT, M.A. (Columbia)	Professor of Home Economics
WILLIAM FRANKLIN ALLISON, B.S., C.E. (Cornell), Professor of Municipal and Highway Engineering.	
STEVENSON SMITH, Ph.D. (Pennsylvania)	Professor of Psychology
ALLEN ROGERS BENHAM, Ph.D. (Yale)	Professor of English
STEPHEN IVAN MILLER, JR., A.B. (Stanford), LL.B. (Michigan), Professor of Economics; Dean of the College of Business Administration.	
FRED CARLETON AYER, Ph.D. (Chicago)	Professor of Education
WILLIAM MAURICE DEHN, Ph.D. (Illinois)	Professor of Chemistry
HOWARD WOOLSTON, Ph.D. (Columbia)	Professor of Sociology

MATTHEW LYLE SPENCER, Ph.D. (Chicago), Professor of Journalism; Director of the School of Journalism.

GEORGE MCPHAIL SMITH, Ph.D. (Frelburg)Professor of Inorganic Chemistry

THOMAS LATIMER KIBLER, Ph.D. (George Washington University), Professor of Transportation

HOWARD THOMPSON LEWIS, A.M. (Wisconsin)Professor of Business Administration

BURT PERSONS KIRKLAND, A.B. (Cornell)Professor of Forestry

*CHARLES EDWIN WEAVER, Ph.D. (California)Professor of Geology

JOHN LOCKE WORCESTER, M.D. (Birmingham School of Medicine)Professor of Anatomy

GEORGE WALLACE UMPHREY, Ph.D. (Harvard)Professor of Spanish

HOWARD H. PRESTON, Ph.D. (Iowa)Professor of Business Administration

ERIC TEMPLE BELL, Ph.D. (Columbia)Professor of Mathematics

EDWARD D. RANDOLPH, A.M. (Columbia)Professor of Education

THOMAS KAY SIDEX, Ph.D. (Chicago)Associate Professor of Latin and Greek

EDWARD MCMAHON, A.M. (Wisconsin)Associate Professor of American History

GEORGE SAMUEL WILSON, B.S. (Nebraska)Associate Professor of Mechanical Engineering

OTTO PATZER, Ph.D. (Wisconsin)Associate Professor of French

CHARLES WILLIAM HARRIS, C.E. (Cornell)Associate Professor of Civil Engineering

VANDERVEER CUSTIS, Ph.D. (Harvard)Associate Professor of Economics

EDGAR ALLEN LOEW, B.S. (E.E.) (Wisconsin) ..Associate Professor of Electrical Engineering

JOSEPH DANIELS, M.S. (Lehigh) ..Associate Professor of Mining Engineering and Metallurgy

HENRY LOUIS BRAKEL, Ph.D. (Cornell)Associate Professor of Engineering Physics

GEORGE BURTON RIGG, Ph.D. (Chicago)Associate Professor of Botany

ARTHUR MELVIN WINSLOW, Ph.B. (Brown), B.S. (Massachusetts Institute of Technology),
Associate Professor of Mechanical Engineering.

RODERICK DUNCAN MCKENZIE, Ph.D. (Chicago)Associate Professor of Sociology

ELIAS TREAT CLARK, M.F. (Yale)Associate Professor of Forestry

ROBERT MAX GARRETT, Ph.D. (Munich)Associate Professor of English

FRIEDRICH KURT KIRSTEN, B.S., E.E. (Washington), Associate Professor of Electrical Engineering.

ROY MARTIN WINGER, Ph.D. (Johns Hopkins)Associate Professor of Mathematics

HERMAN VANCE TARTAR, Ph.D. (Chicago)Associate Professor of Chemistry

HENRY A. LANGENHAM, Ph.D. (Wisconsin)Associate Professor of Pharmacy

EDWIN JAMES SAUNDERS, A.M. (Harvard)Assistant Professor of Geology

ELI VICTOR SMITH, Ph.D. (Northwestern)Assistant Professor of Zoology

CLARENCE RAYMOND COREY, E.M. (Montana State School of Mines), A.M. (Columbia), As-

sistant Professor of Mining Engineering and Metallurgy.

ERNEST OTTO ECKELMAN, Ph.D. (Heidelberg)Assistant Professor of German

JOHN WILLIAM HOTSON, Ph.D. (Harvard)Assistant Professor of Botany

LEWIS IRVING NEIKIRK, Ph.D. (Pennsylvania)Assistant Professor of Mathematics

SAMUEL HERBERT ANDERSON, Ph.D. (Illinois)Assistant Professor of Physics

CURT JOHN DUCASSE, Ph.D. (Harvard)Assistant Professor of Philosophy

BROD LEONARD GRONDAL, M.S.F. (Washington)Assistant Professor of Forestry

FRED H. HEATH, Ph.D. (Yale)Assistant Professor of Chemistry

*LESLIE FORREST CURTIS, B.E. (Tufts)Assistant Professor of Electrical Engineering

EDWIN RAY GUTHRIE, Ph.D. (Pennsylvania)Assistant Professor of Psychology

HEWITT WILSON, Cert. Eng'r. (Ohio State University)Assistant Professor of Ceramics

CURTIS TALMAGE WILLIAMS, Ph.D. (Clark)Assistant Professor of Education

MARTHA KOHNEN, A.M. (Ohio)Assistant Professor of Home Economics

LESLIE SPIER, Ph.D. (Columbia)Assistant Professor of Anthropology

J. PRINGLE JAMESON, D.Sc. (University of Aberdeen, Scotland), Assistant Professor of

Zoology.

RALPH MASON BLAKE, Ph.D. (Harvard)Instructor in Philosophy

GRADUATE COUNCIL: DEAN PADELFORD, Chairman; DEANS CONDON, THOMSON, ROBERTS, and
MAGNUSSON; PROFESSORS MEANT, OSBORN, FEYE, MORITZ, DEHN, WOOLSTON, CUSTIS,
WILLIAMS and GUTHRIE.

GENERAL STATEMENT

SPECIAL NOTE.—For detailed information concerning special facilities for graduate work in the various departments, consult the bulletin issued by the Graduate School.

The Aims of Graduate Study.—The principal aims of graduate study are the development of intellectual independence through the cultivation of the scientific attitude of mind, and the promotion of the spirit of research. The graduate student is therefore thrown more largely upon his own resources than the undergraduate, and must measure up to a more severe standard. The University is consistently increasing the emphasis upon graduate work in order that it may be a strong center for advanced study

Organization.—The Graduate School was formally organized in May, 1911. The graduate faculty includes:

1. All heads of departments which offer graduate work to major students and all full professors in such departments.
2. All associate professors, assistant professors and instructors offering graduate work for major students; provided no department shall have more than four representatives. If more than that number are eligible, the departmental representatives below the rank of full professor shall be elected by the members of the department.

Fees.—Graduate students pay a tuition fee of \$15 a quarter for the autumn, winter and spring quarters, if residents of the State of Washington or of Alaska, or \$50 a quarter for each of these quarters if non-residents. The regular fee for the summer quarter is \$20 for students working at the University; \$15, including a \$3 laboratory fee, for students working at the Biological Station.

Members of the staff on a full-time teaching schedule are relieved of all tuition. Teaching fellows, graduate scholars—formerly known as graduate assistants and graduate readers,—and non-instructional employees of the University pay a tuition fee of one dollar per quarter for each credit hour on the election blank.

The incidental fees, such as library and laboratory fees, are required from all who receive graduate instruction.

GRADUATE FELLOWSHIPS AND SCHOLARSHIPS

Loretta Denny Fellowships.—Three fellowships, of \$500 each, open to graduate students in any department of the University. Awarded by the faculty on the basis of scholastic excellence and general merit, but only to those who need financial assistance. Applications for these fellowships should be made on blanks supplied by the dean of the Graduate School, and must be in his hands on or before March 15 preceding the academic year for which the fellowships are to be granted.

Arthur A. Denny Fellowships.—Six fellowships of \$500 each, open to graduate students in the departments of civil engineering, education, English, history, mining engineering, and pharmacy respectively. Awarded by the departments concerned on the basis of scholastic excellence and general merit, but only to those who need financial assistance. Applicants must be residents of the state of Washington. Applications for these fellowships should be made to the heads of the departments concerned on blanks supplied by them, and must be in their hands on or before March 15 preceding the academic year for which the fellowships are to be granted.

National Research Fellowships.—Fellowships in physics and chemistry, offered by the National Research Council, are open to promising research students, who have already taken the doctor's degree or have equivalent qualifications. A successful candidate can pursue his research at any university or research institute chosen by him and which is acceptable to the appointing board. The salary will ordinarily be \$1800 for the first year. Fellows are eligible for successive reappointments ordinarily with increase in salary. For details address the dean of the Graduate School or the heads of the departments.

University Honorary Fellowships.—Three honorary fellowships have been established by the University. These, like the Loretta Denny fellowships, are open to students in any department of the University. They carry no stipend, and are designed to furnish recognition of exceptional scholastic excellence in the case of graduate students who are not eligible for the Loretta Denny or the Arthur A. Denny fellowships, either because they do not need financial assistance or because they are not giving their entire time to their work in the University.

Research Fellowships in Mining and Metallurgy.—The College of Mines of the University in cooperation with the United States Bureau of Mines offers five fellowships in mining and metallurgical research. The fellowships are open to graduates of universities and technical schools who are properly qualified to undertake research work. The value of each fellowship is \$780 per year of twelve months. Fellowship holders are required to register as graduate students and to become candidates for the degree of master of science in mining engineering or metallurgy, unless an equivalent degree has previously been earned. Applications are due not later than May 15, and should be addressed to the Dean, College of Mines, University of Washington, Seattle, Washington.

Du Pont Fellowship.—Through its chemical department, Du Pont de Nemours & Co. offer a scholarship of \$700 in chemistry, known as the "Du Pont Scholarship," open to a senior student or graduate student in chemistry or chemical engineering.

The Bon Marche Industrial Fellowship.—The Bon Marche of Seattle offers an annual fellowship of \$600 to a graduate student in Home Economics for research work in textiles. The recipient of this fellowship is required to give one fourth of her time for eleven months to the testing of textiles for the Bon Marche.

Research Fellowship in Geology.—A research fellowship, given anonymously and carrying a stipend of \$500, is offered to a graduate student making a major in geology.

University Teaching Fellowships.—The University each year provides a number of teaching fellowships in various departments. The graduate student receiving such a fellowship divides his time equally between his studies and assistance in the teaching work of the department in which he is enrolled. These fellowships range from \$540 to \$720.

Graduate Scholarships.—A number of graduate scholarships are open to students who perform service as laboratory assistants, assistants in charge of quiz sections, or readers. The remuneration is proportioned to the service, and ranges from \$180 to \$360.

Rosenberg Scholarship.—A scholarship of \$200, known as the "Samuel Rosenberg Scholarship, endowed in loving memory by Ella S. Rosenberg, his wife," is open to graduate students in French.

ADMISSION

Three classes of students are recognized in the Graduate School:

1. Candidates for the master's degree.
2. Candidates for the doctor's degree.
3. Students not candidates for a degree.

Admission.—A graduate of the University or of any other institution of equal rank, will be given full graduate standing. Before being recognized as a candidate for a degree, however, a student must be approved by a committee appointed by the dean of the Graduate School, which shall also constitute the advisory committee to oversee the student's subsequent work. Unless the committee are already sufficiently acquainted with the candidate's capacity and attainments, there shall be a conference of the committee and the candidate, the purpose of which is twofold:

(a) To determine whether the student has the quality of mind and the attitude toward advanced work which would justify his going on for an advanced degree.

(b) To satisfy the major and minor departments and the graduate council that the student has the necessary foundation in his proposed major and minor subjects. If he lacks this foundation, he will be required to establish it through undergraduate courses or supervised reading.

If the student is from a college or university which falls below a satisfactory standard in curriculum, efficiency of instruction, equipment, or requirements for graduation, he may be required to take other undergraduate courses in addition to those required as a foundation in the major and minor subjects.

After having been approved by his advisory committee, a candidate for a degree must file with the dean of the Graduate School an outline of his proposed work, on a blank provided for that purpose. When it has received approval of the graduate council and the student has been notified, he will be regarded as a candidate for a degree.

Students on the Staff.—Assistants, associates, or others in the employ of the University are normally permitted to carry three hours of graduate work if full-time employees, and ten to eleven hours if half-time employees. Permission to exceed these hours must be secured from the dean of the Graduate School and the president.

Graduate Study in the Summer.—As the summer offers leisure for advanced study to a large number of teachers, the University lays special emphasis on graduate work during the summer quarter. Graduates of colleges or universities in attendance then are urged to enroll for the strictly graduate courses, as these courses give an opportunity to work with a select group of mature students toward the acquisition of an advanced degree.

Graduate students will enroll with the dean of the Graduate School.

Attendance during three summer quarters will satisfy the residence requirement for the master's degree. A fair amount of credit toward the doctor's degree may also be earned in the summer quarter.

DEGREES

THE DOCTOR'S DEGREE

Doctor of Philosophy.—Graduate students will be received as candidates for the degree of doctor of philosophy in such departments as are adequately equipped to furnish requisite training. Each department introduces its pro-

gram of courses with a specific statement of the graduate training that it is prepared to direct, and of the distinctive opportunities that it offers for graduate work. This degree is conferred only on those who have attained proficiency in a chosen field and who have demonstrated their mastery by preparing a thesis which is a positive contribution to knowledge.

The requirements for the degree of doctor of philosophy are as follows:

1. At least three years of graduate work, of which not less than one year must be spent in residence at the University of Washington. If a candidate is otherwise engaged in any regular employment, a correspondingly longer period of study will be required.

2. Completion of courses of study in a major and two minor subjects, the work in the minors to constitute approximately one-third of this work. The marks for graduate students shall be "passed" or "failed". In courses open to undergraduates and graduates, the passing grade for a graduate student shall be "B" or above if the course is in his major subject, "C" or above, if the course is in his minor subject. Before being recognized as a candidate for the degree, a student must be approved by a committee as provided above.

These courses of study cover at least two years of work. The work of the first year is virtually identical with that for the master's degree, and normally the candidate will wish to take this degree incidentally; the work of the second year is of still more advanced character. Not earlier than the end of the second year and at least a year before the time when the candidate expects to take the degree, the major and minor departments, supplemented by a representative from the graduate council, shall submit the candidate to a careful oral and written examination, to determine whether he has the native equipment and the scholarship to warrant him in continuing.

3. The preparation of a thesis, as stated above, embodying the results of independent research. This thesis may properly be initiated in the second year, and should occupy the greater part of the third year. If the thesis is of such a character, or falls in such a department, that it requires library or laboratory facilities beyond the resources of the University, the student will be required to carry on his investigation at some other university, at some large library, or in some special laboratory. This thesis must be approved by a committee appointed by the major department, of which the instructor in charge of the thesis shall be a member, and also by a special committee from the graduate council.

4. Examinations as follows:

The Preliminary Examination.—An oral and written examination, covering the major and minor subjects. In so far as the examination is oral, it shall be before a committee appointed by the dean of not less than three representatives of the major department, not less than one representative of each of the minor departments, and a representative of the graduate council. The preliminary examination will normally be taken not less than two quarters before the final examination.

The Final Examination.—An oral, or oral and written examination, covering the work of the candidate, especially that part of it in which the thesis falls. The examination shall be given by a committee appointed by the dean including, so far as feasible, all of the instructors with whom the student has worked and a representative of the graduate council. If there is division of opinion in the committee in charge of either examination, the case shall be decided by the graduate council, with right of appeal to the graduate faculty.

5. Evidence of a reading knowledge of scientific French and German and of such other languages as individual departments may require. Such evidence must be filed with the dean and approved by him at least one academic year before the degree is granted. Only in rare cases shall the requirement of a reading knowledge of scientific French and German be waived and then only when, in the judgment of the council, substitutions for either or both of these languages will be to the advantage of the student's training.

6. One copy of the thesis in typewritten form (or library hand) shall be bound at the expense of the candidate and deposited with the librarian for permanent preservation in the University archives, at least four weeks before the date on which the candidate expects to take the degree.

The thesis, or such parts thereof, or such a digest as may be designated by the council, shall be printed. The candidate shall contribute \$100 to a fund for printing of theses, whether his thesis appears in the University series or elsewhere. From this fund the library is provided with 150 copies and the candidate with 50 copies.

7. A card certifying that all courses and examinations have been passed and that the thesis has been accepted and properly filed in the library, shall be presented to the dean at least one week before graduation. This card must bear the signatures of all major and minor instructors in charge of the student's work, of the committee appointed by the major department to pass on the thesis, and of the librarian or his appointed representative.

THE MASTER'S DEGREE

Master of Arts.—The degree of master of arts implies advanced liberal training in some humanistic field, gained through intensive study of one of the liberal arts supplemented by study in one or two supporting subjects. This detailed study culminates in a thesis which, if not an actual contribution to knowledge, is concerned with the organization and interpretation of the materials of learning. Creative work of a high quality may be offered in lieu of a thesis.

Master of Science.—The degree of master of science implies training similar to the above in some province of the physical or biological sciences. The thesis for this degree, however, must be an actual contribution to knowledge.

The requirements for the degrees of master of arts and master of science are as follows:

1. At least three full quarters or their equivalent spent in undivided pursuit of advanced study. If a candidate has done graduate work elsewhere, his program may be slightly less exacting, but this work must pass review in the examination, and shall not reduce the residence requirement at this University.

2. Completion of courses of study in a major and one or two minor subjects, the whole to total not less than 36 hours, of which 24 are normally in the major. The marks for graduate students shall be "passed" or "failed". In courses open to undergraduates and graduates, the passing grade for a graduate student shall be "B" or above if the course is his major subject, "C" or above, if the course is in his minor subject.

The requirements of a minor or minors may be waived, but only on recommendation of the head of the major department and with the consent of the graduate council.

No work in the major subject may be counted toward the master's degree until the candidate has complied with the departmental requirements as to previous work in that subject, which in no case shall be less than eighteen hours.

Elementary or lower division courses may not count toward the minor requirement, and teachers' courses may not count toward either the major or minor requirements.

3. The preparation of a thesis, as defined above.

4. An oral, or written, or an oral and written examination, given by a committee appointed by the head of the major department, including so far as feasible, all the instructors with whom the student has worked. If division of opinion exists among the examiners, the case shall be decided by the graduate council, with right of appeal to the graduate faculty.

5. The candidate's thesis shall be in charge of the instructor in whose field the subject falls, and it must be approved by a committee of the major department, of which the instructor in charge shall be a member. If the committee is divided in opinion, the case shall be decided by the graduate council, with right of appeal to the graduate faculty. At least two weeks before the date on which the candidate expects to take the degree, one copy of the thesis in typewritten form or printed form (or library hand, in case the thesis is of such character that it cannot be typewritten) shall be deposited with the librarian for permanent preservation in the University archives. The thesis must meet the approval of the librarian as to form, and the cost of binding must be deposited with the thesis.

6. A card certifying that all courses and examinations have been passed, and that the thesis has been accepted and properly filed in the library, shall be presented to the dean at least one week before graduation. This card must bear the signatures of all instructors in charge of the student's work, of the instructors in charge of the thesis, and of the librarian or his appointed representative.

Master of Science in Technical Subjects.—The degree of master of science is given in technical subjects as follows:

- Master of Science in Chemical Engineering
- Master of Science in Civil Engineering
- Master of Science in Electrical Engineering
- Master of Science in Mechanical Engineering
- Master of Science in Ceramic Engineering
- Master of Science in Coal Mining Engineering
- Master of Science in Geology and Mining
- Master of Science in Metallurgy
- Master of Science in Mining Engineering
- Master of Science in Forestry
- Master of Science in Fisheries
- Master of Science in Pharmacy

The requirements for these degrees are essentially the same as those for the degrees of master of arts and master of science.

Master's Degree in Technical Subjects.—The master's degree is given in technical subjects as follows:

- Master of Forestry
- Master of Business Administration
- Master of Laws

The requirements for these degrees are essentially the same as those for the degrees of master of arts and master of science, with the exception that all the work may be in the major.

PROFESSIONAL DEGREES

Professional Degrees.—The professional degrees of chemical engineer, civil engineer, electrical engineer, mechanical engineer, metallurgical engineer and engineer of mines may be conferred in three years on those who hold the bachelor of science degree in their respective lines from the University of Washington, who give evidence of having engaged continuously in acceptable engineering work and who present satisfactory theses.

COURSES

For description of courses, see Departments of Instruction, printed elsewhere in this catalogue. (See Index).

DEPARTMENTS OF INSTRUCTION

EXPLANATIONS

The University reserves the right to withdraw temporarily any course which has not an adequate enrollment at the end of the sixth day of any quarter. For changes in registration, due to the withdrawal of a course, no fee will be charged.

Courses bearing numbers 1 to 99 inclusive are normally offered to freshmen and sophomores; those from 100 to 199, to juniors and seniors, and those from 200 upward to graduate students.

Two or three numbers connected by hyphens indicate a course which ordinarily carries credit only when pursued for the full time; the instructor's permission must be obtained for credit for only a single quarter of such a course. No credit in a beginning foreign language is given for less than two quarters' work.

The credit indicated in connection with each course is the "quarter credit," being based on the class periods per week.

The descriptions of courses in each department include: (1) the number of the course as used in university records; (2) the title of the course; (3) a brief statement of its subject matter and method; (4) number of quarter credits given; (5) quarter in which it is given (autumn, winter, spring, summer); (6) name of instructor.

Courses preceded by a * are not given in 1922-1923.

AERONAUTICAL ENGINEERING

Engineering Hall

101. *Aerodynamics.*—Use of the wind tunnel in the determination of the characteristics of aerofoils, selection of aerofoils for a given purpose. Prerequisite, junior standing. Three credits. *F. W. S.* Kirsten

111. *Aerial Propellers.*—Study of the theory and design of airscrews including a review of the methods of calculating thrust and efficiency. Prerequisite, junior standing. Three credits. *F* Kirsten

121. *Airplane Design.*—Selection of the type and construction of an airplane for a given purpose; computation of and performance from aerodynamic data; design of flying boats and seaplanes; the distribution of weights and the proportioning of parts. Prerequisite, A.E. 101. Three credits. *F W. S.* Kirsten

****141. *Airships.***—Aerostatics, including a study of lighter-than-air machines. Prerequisite, A.E. 101, 121. Three credits. Kirsten

****161. *Aerial Transportation.***—Design and layout of landing fields and aircraft terminals. Aerial transportation as an industrial factor and as an instrument of warfare. Prerequisite, A.E. 111, 121, 141. Three credits. Kirsten

**Will be offered if a sufficient number of students elect the course.

ANATOMY

Science Hall and Anatomy Laboratory

PROFESSOR WORCESTER

GROSS ANATOMY

101, 102, 103. *General Human Anatomy*.—Thorough study of the human body. Osteological collections loaned to the students. Especially intended for students taking the pre-medical, nurses' or physical education courses; open to others. Prerequisite, Zool. 3 and 4 or their equivalent. Six credits a quarter; autumn, winter, and spring. Worcester.

104. *Topographic Anatomy*.—Cross and saggital sections for correlation. Prerequisites, Anat. 101, 102, and 103. Four credits; autumn, winter, spring. Worcester.

108. *Special Dissections*.—For physicians or students who have completed the above courses in gross anatomy. Hours and credits to be arranged; autumn, winter, spring. Worcester.

MICROSCOPIC ANATOMY

105, 106. *Histology and Embryology*.—Microscopic anatomy of developing and adult mammals studied both in their fresh and fixed conditions. Especially for students in pre-medical and nurses' courses; open to others. Prerequisite, Zool. 3 and 4 or their equivalent. Six credits a quarter; autumn and winter. Worcester.

107. *Neurology*.—Dissection of the human brain and cord and special organs of sense; comparative developmental history of the central nervous system; a microscopic study of the nuclei and fiber tracts. Prerequisites, Anat. 105 and 106 or their equivalents. Especially for pre-medical students; open to others. Six credits a quarter; spring. Worcester.

200.—Graduate and research work in anatomy for those qualified. Credits and time arranged. Autumn, winter, spring. Worcester.

ARCHITECTURE

Education Hall

ASSOCIATE PROFESSOR GOULD; INSTRUCTORS, McCLELLAND, SEXSMITH

A student should have some previous training in free-hand drawing and he will be required to confer with the head of the department as to his special qualifications for taking the subject. It is desirable that a student have credits in plane geometry, algebra through quadratics, trigonometry, physics, and at least two years of modern language. Forty hours of foreign language will be required before graduation. Twenty hours are provided for in the curriculum.

1-2. *History and Elements of Architecture*.—Illustrated lectures giving an historic survey of domestic architecture. Exercises given in drawing and simpler elements of buildings. Excursions to buildings and building supply companies. Two credits a quarter; autumn, winter. Gould.

3. *History and Elements of Architecture*.—General survey of the important periods of architectural history studied, wherever possible, in terms of present-day conditions. Two credits; spring. Gould

4-5-6. *Architectural Drawing*.—Presentation of problems in architectural drawing based on the Greek and Roman Orders. Studies in plan, elevation, and section. Three credits a quarter; autumn, winter, spring. Sexsmith.

5 - given fall

6 - given fall

7. *Descriptive Geometry*.—Theoretical and practical problems. Orthographic projection. Emphasis on draftsmanship. Two credits a quarter; autumn. Sexsmith.

8. *Shades and Shadows*.—Construction by descriptive geometry of shades and shadows found in architectural renderings. Prerequisite, Arch. 7. Two three-hour laboratory periods a week. Two credits; winter. Sexsmith.

9. *Perspective Drawing*.—Theory of architectural perspective from simple problems in single point perspective up to and including the more complicated problems. Office methods and short-cut methods will be studied and compared with the theory. Two 3-hour laboratory periods. Prerequisite, Arch. 7. Two credits; spring.

10-11-12. *Free-hand Drawing*.—Fundamentals of free-hand drawing and free-hand perspective. Drawing in charcoal or crayon from cast or architectural ornament and from still life. One credit a quarter; autumn, winter, spring. McClelland.

13-14-15. *Dimension Drawing*.—Fundamentals of draftsmanship; orthographic projection, shades and shadows, perspective, brief study of the classic orders and mouldings. Majors in Painting, Sculpture and Design. Two credits a quarter; autumn, winter, spring. Sexsmith.

47-48. *Statics*.—Analysis of fundamental structural problems by application of the laws of equilibrium. Five credits a quarter; autumn and winter. Sexsmith.

51. *History and Elements of Architecture*.—Egyptian—Greek—Roman. Two credits a quarter; autumn. Gould.

52. *History and Elements of Architecture*.—Byzantine—Romanesque—Gothic. Two credits a quarter; winter.

53. *History and Elements of Architecture*.—Principals of design in terms of structural elements. Study and theory of planning. Two credits; spring. Gould and staff.

54-55-56. *Architectural Design*.—Problems in design and planning. Society of Beaux Arts Architects program will be used and work sent to New York City for judgment in competition with the work from leading architectural schools. Lab. deposit, \$2. Five credits a quarter; autumn, winter, spring. Gould.

60-61-62. *Building Construction and Inspection*.—Lectures on building construction methods. Full size and large scale studies of detail. Inspection trips. Two credits a quarter; autumn, winter, spring. McClelland.

73-74. *Free-hand Drawing*.—Studies of architectural ornament and cast of the human figure. One credit a quarter; winter, spring. McClelland.

101-102-103. *History of Architecture*.—The Renaissance. A comparative study of the period in Italy, France and England. Two credits a quarter; autumn, winter, spring. McClelland.

104-105-106. *Architectural Design*.—Advanced problems in ornamental design and planning as applied to different materials. Laboratory deposit, \$2. Five credits a quarter; autumn, winter, spring. McClelland.

106—given fall for H. Shipman
113-114. *Water Color*.—Still life studies, out-door subjects and architectural rendering. One credit a quarter; autumn, spring. McClelland

115. *Sanitation and Plumbing*.—Methods of sewage disposal and water supply in modern buildings; modern appliances and office practice; specifications. Two credits; autumn. Sexsmith.

116. *Specifications and Office Practice*.—Two credits a quarter; winter. Sexsmith.

151-152-153. *History of Architecture*.—Modern architecture; city and industrial planning. Prerequisite, Arch. 103. Two credits a quarter; autumn, winter, spring. Gould.

154-155-156. *Architectural Design*.—Beaux Arts Class A projects first two quarters; third quarter, thesis. Lab. deposit, \$2. Five credits a quarter; autumn, winter, spring. McClelland.

167-158-159 - *Freehand Drawing* - 3 credits.

ASTRONOMY

The Observatory

Owing to Professor Boothroyd's resignation and the necessity on the part of the University to curtail expenses wherever possible, only courses 1 and 2 will be offered for the year, all other courses being temporarily suspended.

The work in astronomy is planned for two classes of students: (a) Those who desire some knowledge of astronomy as a part of a liberal education; (b) engineers and navigators who need some knowledge of the science as a part of their technical training.

In the College of Science, courses 11 and 12 satisfy the science requirements.

In the College of Liberal Arts, courses 11 and 131 are recommended for those electing astronomy for the science requirement. Those who want only five hours may take Ast. 11 or 1, 2 and 31.

1. *Introduction to Astronomy*.—Lectures illustrated by planetarium lantern slides and by views of the more interesting of the heavenly bodies with the equatorial telescope. Use of charts in the study of the sky with the unaided eye. Open to all students of the University. Lab. fee, \$1. One credit; autumn, winter, spring. Smail.

2. *Elements of Astronomy*.—A descriptive course designed to give clear ideas regarding our place in the universe, the succession of the seasons, tidal phenomena, phases of the moon, etc., as well as some conception of the scope of astronomy and a clear idea of the scientific method. Five credits; autumn, winter, spring. Smail.

*11. *The Solar System*.—Observation and study of the real and apparent motions of the various bodies which make up the Solar System. Study of the fundamental principles of mechanics which are revealed through the science of astronomy. Five recitations and laboratory periods per week and three laboratory periods to be arranged. Lab. fee, \$1. Five credits; autumn, winter.

*112. *The Sun and Stars*.—Prerequisite, course 11 and at least high school physics. Five recitation periods a week. Five credits; spring.

*123. *Nautical Astronomy*.—Actual determination of time, latitude and azimuth from observations made by the student with the sextant. Prerequisites, Math 52 and course 1 or the equivalents. Lab. fee, \$2. Two lab. periods a week. Two credits; autumn.

*131. *History of Astronomy*.—An exposition of the scientific method as illustrated by the progress of astronomy. Prerequisites, course 11 or 2,

*Not offered in 1922-1923.

Physics 47, 48, 49 or equivalent. Two lecture and recitation periods a week. Two credits; spring.

**171. Engineering Astronomy.*—Actual determination of time, latitude and azimuth from observations made on the sun and stars by the student with the surveyor's transit. Prerequisite, Math. 52, C.E. 21, and must be preceded or accompanied by course 1 or its equivalent. Two laboratory hours a week. Two credits; autumn. Lab. fee, \$2.

**172. Geodetic Astronomy.*—The precise determination of time, latitude and azimuth. Prerequisites, Ast. 171, Math. 62. Ten hours laboratory work a week. Five credits; winter. Lab. fee, \$5.

BACTERIOLOGY AND PATHOLOGY

Science Hall

PROFESSOR WEINZIRL; ASSISTANT PROFESSOR NICKSON

With the exception of general bacteriology all the courses offered are applied in one of the following fields: (a) medicine; (b) sanitation; (c) industry. Laboratory work forms an important part of all courses.

SUGGESTED ELECTIONS

For majors in bacteriology:

Sophomore year	101, 102, 103
Junior year	104, 105, 106
Senior year	210, 211, 212

For medical, dental students and nurses	213, 214, 215
	101, 105, 106
	110, 111, 112

For home economics students	101, 102, 103
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For fisheries students	101, 102, 103
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For pharmacists and engineers	101
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For graduates	All courses above 100
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4. *Bacteriology of Foods.*—S.C. Fisheries.—A brief study is made of the technique of handling bacteria. Most of the time is given to the bacteriology of fermentation, putrefaction, sterilization, sanitation, and canning. Lab. fee, \$3; winter. Weinzirl.

101. *General Bacteriology.*—Technique in growing and examining bacteria, structure, functions and distribution; identification of species; study of common disease bacteria. Prerequisite, junior standing except for bacteriology majors. A knowledge of biology and general chemistry is desirable. Lab. fee, \$3. Five credits; autumn, spring, summer. Weinzirl and assistant.

102. *Sanitary Bacteriology.*—Consideration of water supplies and sewage disposal; milk, meat and other foods; certain industrial applications; inspection trips. Prerequisite, Bact. 101. Lab. fee, \$3. Five credits; winter. Weinzirl and assistant.

103. *Public Hygiene.*—Conservation of health; prevention of diseases; school hygiene; industrial hygiene, etc. Prerequisite, junior standing except for bacteriology majors. Five credits, lectures only, spring quarter. Weinzirl.

104. *Serology*.—Consideration of the types of immunity; immunization of animals and man; study of immune products. Prerequisite, Bact. 101, and senior standing. Lab. fee, \$4. Four credits; autumn.

105. *Infectious Diseases*.—Detailed study of the pathogenic bacteria, and methods of diagnosis of infectious diseases. Prerequisite, Bact. 101. Laboratory fee, \$4. Four credits; winter.

106. *Clinical Diagnosis*.—Examination of sputum, urine, blood, gastric and intestinal contents, parasites, etc. Prerequisite, Bact. 101. Lab. fee, \$4. Four credits; spring.

110. *Pathology*.—Gross and microscopic study of tumors. Class limited to ten students. Prerequisites, Bact. 101, Anat. 105. Lab. fee, \$4. ~~Three~~ 4 credits; autumn. Nickson.

111. *Pathology*.—Gross and microscopic study of inflammation and degeneration. Prerequisite, Bact. 110. Lab. fee, \$4. ~~Three~~ 4 credits; winter. Nickson.

112. *Pathology*.—Pathology applied to the systems of the body. Prerequisite, Bact. 111. Lab. fee, \$4. ~~Three~~ 4 credits; spring. Nickson.

GRADUATE COURSES

204, 205, 206. *Advanced Bacteriology*.—The student may pursue work along the following lines: 1. technique; 2. physiology; 3. enzymes; 4. special groups of bacteria; 5. analysis; 6. diagnosis; 7. serology; 8. other topics on consultation. Not more than two topics may be taken during any one quarter. Laboratory work, written reports and conferences. Prerequisite, graduate standing. Lab. fee, \$4. Five credits; autumn, winter, spring, summer. Weinzirol and assistants.

207, 208, 209. *Applied Bacteriology*.—By special arrangement the student may spend not less than 18 hours per week in the state and city laboratories. The student may do analysis one term, bacterial diagnosis a second term, and complement fixation a third term. Credit will depend upon a satisfactory statement from the director in charge of the laboratory. Prerequisite, graduate standing. Five credits; autumn, winter, spring, summer.

210, 211, 212. *Seminar*.—A consideration of topics not included in the regular courses; also reports on recent investigations and of research work done by the members. Prerequisite, senior or graduate standing, and Bact. 102 or 105. Two credits a quarter; autumn, winter, spring. Weinzirol.

213, 214, 215. *Research*.—Investigation of assigned problems. Open to qualified students after consultation. Credits and time to be arranged; autumn, winter, spring, summer. Weinzirol.

BOTANY

Science Hall

PROFESSOR FRYE; ASSOCIATE PROFESSOR RIGG; ASSISTANT PROFESSOR HOFSON

SUGGESTED SELECTIONS

For the required biological science in the Colleges of Liberal Arts and Science, only courses 1, 2, 3, 105, 106, 107 will be accepted.

For a major: Courses 105, 106, 107, 140, 141, 142, 143, 144, 145 of which 105 and 106 are required.

For teaching botany: 105, 106, 107, 140, 141, 142, 143, 144, 145.

For pharmacy students: 13, 14.

For forestry students: 11, 12, 111, 140, 141, 142.

For fisheries students: 53, 130.

1. *Elementary Botany*.—The structure and functions of roots, stems, leaves and seeds. Only for those who have had no botany in high school. Five credits; autumn. Rigg and assistants.

2. *Elementary Botany*.—Types of the great groups of plants from the highest to the lowest. Open to students entering the second quarter without any previous botany. Five credits; winter. Frye and assistants.

3. *Elementary Botany*.—Plant analysis; field work with local flora. Open to students entering the third quarter without any previous botany. Five credits; spring. Frye and assistants.

8, 9, 10. *Ecology and Taxonomy*.—For city teachers. Field trips every other Saturday. Two to four credits a quarter; autumn, winter and spring quarters. Frye.

11, 12. *Foresters' Botany*.—Study of types of plants to illustrate the advance in complexity. For forestry students. Prerequisite, Bot. 1 or 2. Five credits a quarter; winter and spring. Hotson and assistant.

13, 14. *Pharmacy Botany*.—Gross structure of vegetative and reproductive parts of seeds; brief study of spore plants; microscopy of powdered drugs. Five credits, winter; four credits, spring. Rigg and assistant.

26. *School Garden*.—Prerequisite, Bot. 1, 2, or 10. Five credits; spring quarter. Hotson.

53. *Aquatic Botany*.—The plants of fresh water habitats especially those involved in the study of fishes and their culture. Five credits; spring. Rigg.

105, 106, 107. *Morphology and Evolution*.—Morphological study of types to show advances in complexity. Required for all majors unless courses 11 and 12 were taken in the freshman year. Prerequisite, Bot. 2 or 10, or Zool. 1 and 2, or senior standing without prerequisites. Five credits a quarter; autumn, winter, spring. Frye, and assistant.

111. *Forest Pathology*.—The recognition and treatment of common wood destroying fungi. Prerequisite, Bot. 10 or 105. Five credits; autumn. Hotson and assistant.

130. *Economic and Marine Botany*.—Economic marine plants, their condition, the products derived therefrom and the process of manufacture. Prerequisite one year of chemistry and junior standing. Four credits; autumn.

140, 141, 142. *General Fungi*.—Morphology and classification of fungi as a basis for plant pathology. Prerequisite, Bot. 11 or 105, junior standing. Five credits a quarter; autumn, winter and spring. Hotson.

143, 144, 145. *Plant Physiology*.—Prerequisite, two quarters of botany and Chem. 21, junior standing. Five credits a quarter; autumn, winter and spring. Rigg.

187. *Journal Club*.—Reviews of articles in current journals, suggested for seniors, graduates and instructors in the department. Prerequisite, junior standing; two years of botany. No credit; each quarter. Frye.

- 190, 191, 192. *Rusts*.—Morphology and classification of the Uredinales. Prerequisite, Bot. 142. Five credits a quarter; autumn, winter and spring. Hotson and assistants

GRADUATE COURSES

200. *Proseminar*.—Semi-independent work by students. Open only on consultation with the head of the department. Credit to be arranged. Frye, Rigg, Hotson
233. *Research*.—Credit to be arranged; any quarter. Frye, Rigg, Hotson
240. *Phycomycetes*.—Prerequisite, Bot. 142. Five credits. Any quarter. Hotson
241. *Ascomycetes*.—Prerequisite, Bot. 142. Five credits. Any quarter. Hotson
242. *Basidiomycetes*.—Prerequisite, Bot. 142. Five credits. Any quarter. Hotson
250. *Algae*.—Prerequisite, Bot. 105. Five credits; any quarter. Frye
251. *Bryophytes*.—Prerequisite, Bot. 106. Five credits; any quarter. Frye
252. *Pteridophytes*.—Prerequisite, Bot. 106. Five credits; any quarter. Frye
253. *Gymnosperms*.—Prerequisite, Bot. 107. Five credits; any quarter.
254. *Angiosperms*.—Prerequisite, Bot. 107. Five credits; any quarter. Frye
- 261, 262, 263. *Plant Pathology*.—Study of diseases of plants and the fungi which produce them. Prerequisite, Bot. 142. Five credits a quarter; autumn, winter, spring. Hotson
- 271, 272, 273. *Experimental Morphology*.—Prerequisite is course 106, 145, one year chemistry, graduate standing. Two credits a quarter. Frye
279. *Colloidal Biology*.—Prerequisite, Bot 143, Chem. 32, graduate standing. Five credits; any quarter. Rigg
280. *Micrometabolism*.—Prerequisite, Bot. 12 or 107, 145, graduate standing. Five credits; any quarter.

CERAMICS

Mines Hall

ASSISTANT PROFESSOR WILSON

NOTE: Mining, metallurgical, geological, or ceramic experience. Each student is required to spend at least one summer vacation, or its equivalent, in practical contact with the industry, and to submit upon his return to college a detailed report of his observations. Work of this nature offers an opportunity to secure data and material for the graduation thesis.

90. *Ceramic Materials*.—Origin, occurrence, physical properties and preparation of clays, feldspar, limestone, magnesite, silica, and other materials used in the ceramic industry. Prerequisite, sophomore engineering or mining standing. Three lectures and recitations. Three credits; spring. Wilson

OK for fall F.W Schroeder
 " " Winter

*100. *Ceramic Products.* *Given Winter (3)*

*101. *Drying and Burning.*

*102. *Ceramic Decoration.*

*104, 105. *Ceramic Calculations.* *Given Winter (3)*

*110. *Ceramic Physical-Chemical Measurements.*

*121, 122, 123. *Ceramic Products Laboratory.* *Ok. fall for F. W. Schroeder (5)*

*125, 126, 127. *Ceramic Plant Design.*

*131, 132, 133. *Ceramic Thesis.*

140. *Pottery.*—Occurrence, winning and preparation of materials used in pottery manufacture. Processes used in molding, drying, firing, glazing, and decorating of pottery. Two lectures and recitations. Two credits; autumn. Wilson

150. *Lime, Plasters and Cements.*—Raw materials, manufacture and testing of lime, calcined gypsum, sand-lime brick, and Portland cement. Prerequisite, Chem. 3. Three lectures and recitations. Three credits; winter. Wilson

160. *Glass Technology.*—Theory and factory practice of glass manufacture. Prerequisite, Cer. 105. Two lectures and recitations. Two credits; autumn. Wilson

170. *Metal Enamels.*—Theory and practice of metal enameling. Prerequisite, Cer. 105. Two lectures and recitations. Two credits; autumn. Wilson

180. *Refractories.*—Origin, occurrence and physical properties of fire-clays and other refractory materials. The manufacturing problems of fire-clay, silica, magnesia, chromite brick, electric furnace products and special refractories. Prerequisite, junior standing. Two recitations and on lab. period. Lab. fee, \$5. Three credits a quarter; autumn, winter or spring.

191, 192, 193. *General Ceramics.*—Occurrence, winning and preparation of materials used in ceramics. Process used in preparation of raw materials, shaping, drying and firing of ceramic products. One recitation and two lab. periods. Lab. fee, \$10. Three credits; autumn, winter and spring.

221, 222, 223. *Ceramic Resources.*—A study of the ceramic resources of Washington and the Pacific Northwest, or of some particular area in this region. Prerequisite, graduate standing. Hours and credits to be arranged. Wilson

GRADUATE COURSES

231, 232, 233. *Ceramic Manufacture.*—Studies in the manufacture of clay products; especially the utilization of raw materials found in the Pacific Northwest. Prerequisite, graduate standing. Hours and credits to be arranged. Wilson

CHEMISTRY

Bagley Hall.

PROFESSORS BENSON, JOHNSON, DEHN, SMITH; ASSOCIATE PROFESSOR TARTAR; ASSISTANT PROFESSORS HEATH, THOMPSON, LYNN; INSTRUCTORS McMILLIN, WHITWELL, POWELL, GAILBY; ASSOCIATES RADFORD, WHIPPLE, SEMON, DRAVES.

The instruction in this department is designed to satisfy, as far as possible, the requirements of those students who desire to study chemistry as a means

*Not offered in 1922-1923.

of culture and as a necessary complement of a liberal education. It is realized that the subject is eminently practical; hence it is the desire of those in charge so to guide the student that he may fit himself for work in those lines in which chemistry has become an applied science.

REQUIREMENTS OF THE DEPARTMENT

Students desiring to specialize in chemistry may select one of the three courses: (1) the elective curriculum designed for those who wish to take a general course in chemistry and leading to the degree of B.S. in the College of Science (see page 76); (2) the suggested curriculum designed for those who intend to make use of chemistry as a vocation and leading to the degree of B.S. in Chemistry (see page 78); (3) the prescribed curriculum in chemical engineering designed for those who plan to engage in the manufacturing industries and leading to the degree of B.S. in Chemical Engineering (see page 121.)

The fee for each laboratory course is \$7.50 a quarter. This covers the general laboratory expenses such as gas, water, depreciation, etc. For the purchase of chemicals and apparatus, each student is required to buy a breakage ticket when he obtains his locker key. The cost of this ticket is \$5. Any unused portion of the breakage ticket will be refunded.

1-2. General Inorganic Chemistry.—Fundamental chemical theory and the chemistry of the non-metallic elements. Open only to students not having had an accredited high school course in chemistry. Three lectures and two lab. periods a week. Five credits a quarter; any quarter.

Smith, Tartar, Thompson

4. General Chemistry.—For short course miners. Three lectures and one 4-hour lab. period a week. No credit; winter.

Thompson

5-6. General Chemistry.—Open only to women in home economics and physical education. Three lectures and two lab. periods a week. Five credits a quarter; winter, spring.

Tartar

8-9-10. General Chemistry and Qualitative Analysis.—Open only to pharmacy students. The work in the spring quarter is qualitative analysis. Three lectures and two lab. periods a week. Five credits a quarter; autumn, winter, spring.

Lynn

21-22. General Inorganic Chemistry.—Fundamental chemical theory and the chemistry of the non-metallic elements. Open only to students having had an accredited high school course in chemistry. Three lectures and two lab. periods a week. Five credits a quarter; any quarter.

Smith, Tartar, Thompson

23. Elementary Qualitative Analysis.—Two lectures a week deal with the chemistry of the metallic elements. One lecture a week and the entire laboratory time is devoted to qualitative analysis. Prerequisite, Chem. 2, 22 or equivalent. Three lectures and two lab. periods a week. Five credits; any quarter.

Smith, Tartar, Thompson

37-38-39. Organic Pharmaceutical Chemistry.—Study of the organic chemicals of the U. S. Pharmacopoeia. Open only to pharmacy students. Prerequisite, Chem. 10 or its equivalent. Three lectures and two lab. periods a week. Five credits a quarter; autumn, winter, spring.

Johnson

52. Chemical Technology.—Application of the preceding courses to chemical manufacturing practice. No fee. Prerequisites, Chem. 23, Physics 97, Math. 61. Three lectures. Three credits; spring.

Whitwell

*55. *Forest Products.*

101. *Advanced Qualitative Analysis.*—Two lectures and three lab. periods a week. Prerequisite, Chem. 23 or its equivalent. Five credits; autumn, winter, spring. Thompson

104. *Food Chemistry.*—For home economics students. Methods of analysis of various foods and federal and state laws studied. Two lectures and two lab. periods a week. Four credits; spring. Lynn

105, 106, 107. *Food Chemistry.*—Laboratory and class work in analysis of food products and study of federal and state laws regulating the sale of food products and drug products. Five credits per quarter; autumn, winter, spring. Lynn

111. *Quantitative Analysis.*—A brief course which deals with both gravimetric and volumetric methods. Prerequisite, Chem. 23 or its equivalent. Two lectures and three lab. periods a week. Five credits; autumn, winter, spring. Heath

112. *Quantitative Analysis.*—Gravimetric analysis. Prerequisite, Chem. 23 or its equivalent. Two lectures and three lab. periods a week. Five credits; autumn, winter, spring. Heath

113. *Quantitative Analysis.*—Volumetric analysis. Two lectures and three lab. periods a week. Prerequisite, Chem. 23 or its equivalent. Five credits; autumn, winter, spring. Heath.

114. *Advanced Quantitative Analysis.*—Two lectures and three lab. periods a week. Prerequisite, Chem. 23, and either 112 or 113. Five credits; autumn. Heath.

116, 117, 118. *Industrial Chemistry.*—Brief course covering the materials and processes involved in the manufacturing industries. Autumn—fuels, materials of construction, water supply and sanitation; winter—acids, alkalies and salts; spring—technology of oils, fats, resins and waxes. Any quarter's work may be taken separately. Three lectures. Prerequisite, Chem. 3 or 23 or equivalent. No fee. Three credits a quarter; autumn, winter, spring. Benson.

121, 122, 123. *Industrial Chemistry.*—Autumn—fuels, gases, cements, refractories, iron and steel, and alloys with special reference to technical testing; winter—machinery and processes for the manufacture of acids and alkalies; spring—organic industrial chemistry, particularly with the technology of oils, fats, paints, rubber and cellulose products. The work of each quarter may be undertaken independently. Three lectures and two lab. periods a week. Prerequisite, Chem. 52, 111 or equivalent. Five credits a quarter; autumn, winter, spring. Benson, Whitwell.

OK for 2 cr
for winter
for 3 cr
for 1 cr

128-129. *Organic Chemistry.*—Brief course for medical, chemical engineering and technical students. Three lectures and two lab. periods a week. Prerequisite, Chem. 23 or its equivalent. Five credits a quarter; winter, spring. Powell.

131, 132, 133. *Organic Chemistry.*—For major students in chemistry and for students in the College of Science. Three lectures and two lab. periods a week. Prerequisite, Chem. 23 or its equivalent. Five credits; autumn, winter, spring. Dehn.

134. *Manufacture of Industrial Organic Chemicals*.—Laboratory course in the preparation of organic chemicals on a semi-commercial scale which may be taken independently or in lieu of the regular laboratory work in course 129 or 133. Two lab. periods a week. Two credits; spring. Powell.

135-136. *Organic Chemistry*.—For home economic students. Only women are admitted. Three lectures and two laboratory periods a week. Prerequisite, Chem. 6 or its equivalent. Five credits a quarter; autumn, winter. Powell.

141-142. *Physiological Chemistry*.—General course for students of medicine, biology and bacteriology. Chemical composition of foods, tissues, secretions and excretions, their physiological and pathological changes. Prerequisite, Chem. 111 or 113 and 129 or equivalent. Three lectures and two lab. periods. Five credits; autumn, winter. Gailey.

144. *Physiological Chemistry*.—For fisheries and other technical students. Prerequisite, Chem. 129 or its equivalent. Three lectures and two lab. periods a week. Five credits; spring. Gailey.

146. *Chemistry of Blood and Urine*.—Study of normal and pathological blood and urine. Intended for pre-medical students, nurses and clinical technicians. One lecture and two lab. periods. Prerequisite, Chem. 111 or 113 and 120. Three credits; spring. Gailey.

150. *Industrial Seminar*.—A special course for advanced students will be given each year by members of the staff especially qualified for some particular subject. During 1922-23 the subject will be synthetic dye-stuffs. Lectures and laboratory periods will be arranged. Two credits; winter. Dehn.

160-161. *Elementary Physical Chemistry*.—Brief course, general survey, descriptive, non-mathematical, particularly for the needs of premedic and science students majoring in subjects other than chemistry. Chemistry majors may, with the instructor's permission, take this instead of 181-182. Two lectures and one lab. period. Prerequisites, Chem. 111 or equivalent and ten hours of physics. Three credits a quarter; winter, spring. Tartar.

181-182. *Physical and Theoretical Chemistry*.—Course deals with the fundamental theories of chemistry based upon physical and chemical measurements. Three lectures and two lab. periods a week. Prerequisite, Physics 2 and Chem. 113. Five credits a quarter; autumn, winter. Tartar.

183. *Electro-Chemistry*.—Theories and laws of voltaic currents and laboratory work with electro-chemical processes and measurements. Three lectures and two lab. periods a week. Prerequisite, Chem. 182. Five credits; spring. Tartar.

*184. *Chemistry of Colloids*.

192. *Chemistry of Plants and Animal Tissues*.—Application of physiological chemistry to the study of biology. Prerequisite, Chem. 111 or 113 and 129. One lecture and two lab. periods. Three credits; winter. Gailey.

193. *Chemistry of Nutrition*.—Study of enzyme and chemical reactions involved in digestion and metabolism. Prerequisite, Chem. 111 or 113 and 129. Two lectures and one lab. period a week. Autumn. Gailey.

200. *Journal Seminar*.—Advanced students may register for assigned readings and reports on the chemical literature. Different members of the

*Not offered in 1922-1923.

staff will have charge of the course during the various quarters. No fee. One credit a quarter; autumn, winter, spring.

GRADUATE COURSES

203. *Advanced Physical Chemistry*.—Chemical statics and dynamics. Prerequisite, Chem. 182 or equivalent. No fee. Three lectures. Three credits; autumn. Tartar.

205, 206, 207. *Inorganic Preparations*.—Preparation of special substances involving representative laboratory methods. Any quarter may be taken independently. Two lab. periods a week. Two credits a quarter; autumn, winter, spring. Thompson.

208 — *Seminar — 2 hrs.*
210, 211, 212. *Organic Preparations*.—Preparation of special substances involving representative laboratory methods. Any quarter may be taken independently. Two lab. periods. Two credits a quarter; autumn, winter, spring. Dehn.

213. *Organic Analysis*.—Special methods used in the analysis of organic substances. Two lab. periods a week. Prerequisite, Chem. 133 and 113. Two credits; autumn. Dehn.

215, 216, 217. *Chemical Engineering*.—For seniors and graduates in chemical engineering. Autumn—course consists of selected chemical processes with special emphasis on the factors of control and inspection; winter—preparation of drawings and specifications of fundamental apparatus such as driers, coolers, grinders, conveyors, evaporators, and stills, together with computations of heat interchange, etc.; spring—the evolution of a chemical process from assigned raw materials quantitatively and experimentally tested. This quarter's work may be reported in the form of a thesis for the bachelor's degree. Prerequisite, Chem. 123, C.E. 2 and M.E. 90. Lab. hours and fees to be arranged. Five credits a quarter; autumn, winter, spring. Benson, Whitwell.

*219. *Advanced Chemical Engineering*.

221, 222, 223. *Advanced Inorganic Chemistry*.—A comprehensive course based on the periodic system of the elements; illustrative applications of various laws and theories. Two quarters devoted to the elements and their ordinary compounds, and one quarter to the chemistry of the higher order compounds. Recommended for all majors and graduate students. No fee. Two credits a quarter; autumn, winter, spring. Smith.

224, 225. *History of Chemistry*.—Lectures and assigned reading. No fee. Prerequisite, Chem. 133, 182. Two credits; autumn, winter. Smith.

231, 232, 233. *Advanced Organic*.—Detailed study of special fields of organic chemistry. Any quarter may be taken independently. Prerequisite, Chem. 129, 182. No fee. Three lectures; three credits a quarter; autumn, winter, spring. Dehn.

250. *Research*.—The work in research is of three types: (1) Special investigations by advanced students may be carried on under the direction of members of the staff. (2) Research for the master's degree. Maximum credit is nine hours. (3) Research for the doctor's degree. Work for this degree may be carried on under the direction of any member of the regular staff of the department. Maximum credit is forty-five hours.

CIVIL ENGINEERING

Education Hall

PROFESSORS MORE, ALLISON; ASSOCIATE PROFESSORS HARRIS, RUBBY;
 ASSISTANT PROFESSORS RATHBUN, COLLIER, MAY; INSTRUCTORS, WHITE, HAMILTON, MILLER,
 BROWN, DOBSON, DANA, THOMPSON, WILCOX, TRUESDELL; ASSOCIATES, WELD, STRANDBERG,
 WERNERKE

1. *Engineering Drawing*.—Lettering; engineering sketching, fundamental principles of working drawings; mapping, map conventions. Lab. deposit, \$2. Three credits; autumn, winter, spring. White.

2. *Engineering Drawing*.—Detail and assembly drawings; readings of drawings; use of instruments; tracing; standards and conventions. Prerequisite, C.E. 1. Three credits; autumn, winter, spring. White.

4. *Topographic Surveys*.—Field and office collection of information and platting of field notes for topographic surveys. For geology students. Lab. fee, \$2. Three credits per quarter; spring. Wilcox.

11. *Engineering Problems*.—Training in methods of attacking, analyzing and solving engineering problems. Coaching in proper methods of work and study, including training in systematic arrangement and clear workmanship. Deals mainly with the dynamic side of the problems. Three credits; autumn, winter, spring. Truesdell.

12. *Engineering Problems*.—Continuation of the work in C.E. 11 but devoting most of the time to statics. Prerequisites, C.E. 1, C.E. 11 and Math. 51. Must be preceded or accompanied by Math. 52. Three credits; autumn, winter, spring. Truesdell.

13. *Engineering Problems*.—Detailed analysis and solution of numerous engineering problems dealing with space and dimensions by the use of graphic methods. Prerequisites, C.E. 1 and C.E. 2. Three credits; autumn, winter, spring. White.

21. *Plane Surveying*.—Surveying methods, instruments, computations, mapping. U. S. public land surveys. Prerequisites, C.E. 1 and Math. 52. All freshmen engineers. Laboratory fee, \$2. Three credits; autumn, winter, spring. Rubey.

22. *Railroad Surveying*.—Plane curves, grades and earthwork. Elementary railroad engineering. Prerequisite, C.E. 21. Laboratory fee, \$2. Four credits; autumn. Rubey.

23. *Higher Surveying*.—Meridian observations; triangulation and base line measurements; computations and adjustment of measurements; plane table surveying. Prerequisite, C.E. 21. Laboratory fee, \$2. Four credits; winter. Rubey.

24. *Field Engineering*.—Field and office practice in the survey of highways, railroads, canals, etc. Prerequisites, C.E. 21 and C.E. 22. Laboratory deposit, \$2. Four credits; spring. Rubey.

27. *Mine Surveying*.—Surface and underground practice; observation for meridian; topography; mining claim survey; tunnels, and vertical shaft work and connections; mapping. Prerequisite, C.E. 21. Sophomore mining engineers. Laboratory deposit, \$2. Three credits; winter. Rubey.

30. *Surveying*.—(Short session in Forestry). Laboratory fee, \$2. Five credits; winter. Hamilton.

38. *Surveying*.—(Short session in Mining). Laboratory fee, \$2. Five credits; winter. Rubey.

55. *Forest Surveying*.—For students in forestry. Laboratory fee, \$2. Two credits; winter. Hayden.

56. *Forest Surveying*.—Chain, compass, transit and level surveying, with reference to work in forestry. Laboratory fee, \$2. Five credits; spring. Rubey.

91, 92, 93. *Mechanics*.—For Civil Engineers.—Applications of elementary principles of statics, dynamics, and mechanics of materials. Prerequisite C.E. 12. Three credits a quarter; autumn, winter, and spring. More.

112. *Railway Construction*.—Railway construction methods, machinery and tools; details of track, and terminal structures. Prerequisite, C.E. 24. Three credits; winter. *Withdrawn* Rubey.

**115. *Railway Economics*.—The economic theory of railway location, operation and maintenance. Prerequisite, C.E. 24. Three credits; spring. Rubey.

122. *Highways*.—Location and construction of standard types, with application to local conditions. Prerequisite, C.E. 22. Three credits; spring. Allison.

**126. *Roads and Pavements*.—Materials, construction and maintenance. Laboratory study of materials used in pavements. Prerequisite, C.E. 122. Laboratory deposit, \$2. Five credits; autumn. Allison.

131. *Mechanics*.—Algebraic and graphic application of elementary principles of statics. Prerequisites, C.E. 12 and Math. 62. Three credits; autumn, winter, or spring. More.

132. *Mechanics*.—Application of elementary principles of dynamics. Prerequisite, C.E. 131. Three credits; autumn, winter or spring. May.

133. *Mechanics*.—Continuation of C.E. 131 and C.E. 132; and mechanics of materials. Prerequisite, C.E. 132. Three credits; autumn, winter, spring. Dana.

134. *Framed Structures*.—Application of mechanics to analysis of structural details and simple framed structures. Prerequisite, C.E. 93 or C.E. 133. Three credits; autumn. Rathbun.

135. *Advanced Mechanics*.—General theories of flexure. Problems in indeterminate structures. Senior and graduate engineers. Prerequisite, C.E. 93 or C.E. 133. Five credits; spring. More.

**137. *Mechanics*.—Analytical study of problems in mechanics. Prerequisite, C.E. 93 and Math. 2. Three credits; spring. Rathbun.

139. *Reinforced Concrete*.—Fundamental principles of reinforced concrete. Prerequisite, C.E. 93 or C.E. 133. Three credits; spring. More.

142. *Hydraulics*.—Flow of water through pipes, orifices, over weirs, and in open channels; energy and reaction of jets with application to impulse wheels; review of hydrostatics. Prerequisite, C.E. 131 or C.E. 93. Laboratory deposit, \$2. Five credits; autumn, winter, spring. Harris.

143. *Hydraulic Engineering*.—Complete problems presenting hydraulic engineering. Prerequisite, C.E. 142. Three credits; winter. Harris.

* **Will be offered if a sufficient number of students elect the course.

****145. Hydraulic Machinery.**—Development and theory of water wheels and turbine pumps; design of a reaction turbine; reference to hydrostatic machinery and dredging equipment. Prerequisite, C.E. 142. Senior and graduate E.E. and M.E. Three credits; winter. Harris.

147. Hydraulic Power.—Generation of power; penstock and turbines; types of installations. Prerequisite, C.E. 142. Senior and graduate C.E. Five credits; spring. Harris.

153. Water Supply.—Principal engineering operations necessary to secure suitable water supplies for cities, towns and industrial plants. Senior and graduate C.E. Prerequisite, C.E. 142. Three credits; autumn. Allison.

154. Sewerage and Drainage.—Design and construction of sewerage and drainage systems for cities and towns. Senior and graduate C.E. Prerequisite, C.E. 142. Three credits; winter. Allison.

155. Water Supply Problems.—Methods used in obtaining a suitable supply; purification of water. Senior and graduate C.E. and Ch.E. Prerequisite, C.E. 142. Three credits; winter. Allison.

****157. Irrigation Engineering.**—Investigation regarding duty of water and methods of obtaining it for irrigation purposes. Design and construction of irrigation works. Prerequisite, C.E. 142. Three credits; autumn. Allison.

****158. Sewage Treatment.**—Supplementary to C.E. 154, especially relating to public health; sewage disposal; garbage collection and destruction. Senior and graduate C.E. and Ch.E. Three credits; spring. Allison.

****160. Building Construction.**—Study of construction problems from the standpoint of the builder. Prerequisite, C.E. 93 or C.E. 133. Three credits; spring. Weld.

used to be bridge
161. Structural Design.—Relation of theory of structures to engineering practice. Special application to roof and bridge trusses. Prerequisite, C.E. 134. Five credits; winter. Rathbun.

****164. Advanced Structural Design.**—Reinforced concrete, arches, statically indeterminate truss design. Prerequisite, C.E. 161. Five credits; spring. Rathbun.

167. Materials of Construction.—The properties of materials used in engineering construction; timber, concrete, steel, etc. Recitations and laboratory. Prerequisite, C.E. 93. Lab. fee, \$2. Five credits; autumn. Collier.

169. Engineering Relations.—Consideration of the construction and operation of projects, and of the involved business relations. Prerequisite, senior standing. Five credits; autumn. Rubey.

198. Thesis. Five credits.

210, 212, 214. Research.—Time to be arranged. Two to five credits; autumn, winter, spring.

CLASSICAL LANGUAGES AND LITERATURE

Denny Hall

PROFESSOR THOMSON; ASSOCIATE PROFESSOR SIDBY; ASSISTANT PROFESSORS DENSMORE, CLARK

Requirements for a major; at least 36 hours in the department, chosen from the courses other than Greek 11 and 13-14; Latin, 1, 2, 3, 4, 5, 6, 11; 14-15-16. A student specializing in Greek must take at least nine hours of Latin; one specializing in Latin must take at least ten hours of Greek.

**Will be offered if a sufficient number of students elect the course.

I. GREEK

1-2-3. *Elementary Greek*.—Introduction to a knowledge of the Greek language is made through the medium of Homer. Book I of the Iliad will be covered during the year. To insure proper adaptation to the ability of the student, the method of supervised study will be followed during one afternoon period each week. Five credits a quarter, beginning any quarter. Densmore.

4-5. *The World of Homer*.—Readings from the story of Achilles and the wanderings of Odysseus on a background of a general study of the history of the period down to Hesiod. Three credits; autumn, winter. Densmore.

6. *The Persian War Period*.—Wide readings in Herodotus. Three credits; spring. Densmore.

*7. *New Testament Greek*.

*8-9-10. *Greek Art*.

11. *Greek Civilization*.—Institutional and cultural survey of the Greek world from the earliest times to the Roman conquest. Illustrated lectures, conferences and discussions. Knowledge of Greek not required. Five credits; autumn. Densmore.

13. *Greek Literature*.—The masterpieces in English translations. Knowledge of Greek not required. Five credits; autumn, winter, spring. Sidey.

14. *Greek and Roman Literature*.—Continuation of course 13 but may be elected by those who have not had Greek 13. Five credits; autumn, winter, spring. Sidey.

15-16. *Greek Civilization and Literature*.—Duplication of course 11, but including the literature in translation as a fundamental expression of the Greek genius. Five credits a quarter; winter, spring. Densmore.

101-102-103. *The Periclean Age*.—An intensive study of Greek civilization from the founding of the Delian confederacy to the death of Socrates. Readings, conferences, and reports. Prerequisite, Greek 4-5 or equivalent. Three credits a quarter; autumn, winter, spring. Densmore.

104-105-106. *Greek Poetry*.—Lyric, dramatic, pastoral. Prerequisite, Greek 6. Two credits a quarter; autumn, winter, spring. Densmore.

107-108-109. *Greek Prose Writers*.—Xenophon's Economist; The Constitution of Athens; Demosthenes; Plutarch's Lives. Two credits a quarter; autumn, winter, spring. Densmore.

151-152-153. *Plato: The Republic*.—Three credits a quarter; autumn, winter, spring. Densmore.

121-2-3 ————— 3 cr
141-2-3 ————— 3 cr

II. LATIN

1-2-3. *Elementary Latin*.—Course covers the first and second years of high school Latin. Designed to help those who have previously had little or no Latin to an appreciation of the sources of the English and Romanic languages, as well as to enable those who desire to study Latin more thoroughly to bring their preparation up to the college requirements. It will be given if any considerable number of students desire it. Five credits a quarter; autumn, winter, spring. Sidey.

4-5-6. *Third Year Latin*.—Open to those who have completed two years of high school Latin or who have had Latin 1-2-3 in the University. May be used as a substitute for the requirement in ancient language, Life and Literature and will also qualify a student to enter Latin 21. The work will consist of a review of grammar and syntax and the study of selections from Cicero and Vergil. Five credits a quarter, autumn, winter, spring. Thomson, Clark.

11. *Roman Civilization*.—The part played in history by the Romans; their contributions to modern civilization. Lectures, illustrated, when possible; collateral reading and reports. Five credits; autumn, winter, spring. Clark.

13. *Roman Literature*.—(See Greek 13-14.)

14-15-16. *Roman Art*.—Roman architecture for two quarters, followed by sculpture, numismatic and minor arts. Illustrated by photographs and slides. Primarily for students of fine arts but open to all. Alternates with the course in Greek art. One credit a quarter; autumn, winter, spring. Sidey.

21. *Cicero De Senectute*.—Comparison of Cicero's work with similar essays. Exercises in grammar and composition. Prerequisite, three and one-half years of high school Latin. Five credits; autumn. Clark.

22. *Ovid*.—Selections, chiefly from the *Metamorphoses*, with some study of the same myths as they appear in English literature. Grammar and composition. Prerequisite, three and one-half years of high school Latin. Three or five credits; winter. Clark.

23. *Catullus*.—The Latin lyric. Emphasis upon finished translation and comparison of the best English versions; grammar and composition. Prerequisite, three and one-half years of high school Latin. Three or five credits; spring. Clark.

50. *Livy*.—One book and selections from the other books. Prerequisite, Latin 21, 22, 23, or special permission. Five credits; autumn. Thomson.

60. *Horace: Odes; Vergil: Eclogues*.—Prerequisite, Latin 21, 22, 23 or special permission. Five credits; winter. Thomson.

70. *Tacitus: Agricola; Martial: Epigrams*.—(Selections). Prerequisite, Latin 21, 22, 23 or special permission. Five credits; spring. Thomson.

106. *Syntax and Prose Composition*.—Prerequisite, Latin 50 or 60 or 70. Three credits; autumn. Clark.

107. *The Age of Cicero*.—A study of selected portions of Cicero's Letters and the Civil War of Caesar. Prerequisite, Latin 50, 60 or 70. Three credits; winter (Not to be offered in 1923-1924). Clark.

*108. *Vergil's Aeneid*.—(To be offered in 1923-1924). Clark

*109. *Tacitus' Annals*.—A reading course. Prerequisite, Latin 50, 60 or 70. Three credits; spring. Clark.

*110. *Lucretius*.

*111. *The Roman Epic*.

*112. *Short Stories from Apuleius*.

151. *Latin Satire*.—A study of Horace, Juvenal and minor satirists. Two credits; autumn. Sidey.

152. *Christian Latin*.—Selections from Minucius Felix, Augustine, Lactantius and other early Christian writers. Two credits; winter. Sidey.

153. *Medieval Latin*.—Einhard's Life of Charlemagne and Bede's Ecclesiastical History of England. Two credits; spring. Sidey.

NOTE—For courses in Comparative Philology, see the department of Scandinavian Languages and Literature.

NOTE—For teachers' course in Latin, see department of education, Educ. 160.C.

DRAMATIC ART

Denny Hall

PROFESSOR GORSUCH; INSTRUCTOR HUGHES

The work in this department is planned for three classes of students: (a) those who desire some knowledge of dramatic art as part of a liberal education; (b) those who need some knowledge of dramatic art as part of their technical training; and (c) those who wish to pursue the subject more intensively than either of the former groups, except courses 101-102-103.

For a major the department requires 38 to 60 credits, of which 24 must be in the department, including courses 1-2-3 and 21-22-23.

Courses 1-113 (inclusive) may be entered at the beginning of the first, second or third quarters.

1-2-3. *Dramatic Literature*.—Introductory course. Selected plays of the great dramatists are studied with the purpose of increasing the student's power of analysis and appreciation. Three credits a quarter; autumn, winter, spring. Gorsuch.

21-22-23. *Shakespeare*.—Dramatic reading and interpretation of selected plays. Courses 21-22-23 have as their general purpose the interpretation of the drama. Selected plays are used as exercises in dramatic delivery and for the study of effectiveness in the heading of lines. The special aims are to correct personal mannerisms of vocal expression and to encourage habits of speech that are right and natural; to cultivate proper instinctive expression, and the use of imagination in conceiving the situation, relation and characterization as these are manifested in utterance. Three credits a quarter; autumn, winter, spring. Gorsuch.

27-28-29. *Contemporary Drama*.—Dramatic reading and interpretation of selected plays. For further information see courses 21-22-23. Gorsuch.

31. *Practical Public Speaking*.—An introductory course. Principles of public speaking are studied and short, original talks are prepared and delivered. Prerequisite, English 1. Three credits a quarter; autumn, winter, spring. Gorsuch.

32-33-34. *Practical Public Speaking*.—Prerequisite, Dram. Art 31, or junior standing. Three credits a quarter; autumn, winter, spring. Gorsuch.

101-102-103. *Play-acting and Play-producing*.—A practical course in the art of acting, with some time given to the problems of producing. Includes work in interpretation of both standard and original plays. Four credits a quarter; autumn, winter, spring. Lovejoy Hughes—

111-112-113. *Play-writing*.—A study of the principles of dramatic composition, together with experimental creative work. Five credits a quarter; autumn, winter, spring. Lovejoy Hughes—

Work to be announced later will include courses in producing, general stagecraft.

ECONOMICS AND BUSINESS ADMINISTRATION

Commerce Hall

PROFESSORS MILLER, KIBLER, LEWIS, PRESTON; ASSOCIATE PROFESSORS CUSTIS, SMITH, MORIARTY, COX; ASSISTANT PROFESSORS McMAHON, SKINNER (absent on leave); INSTRUCTORS GREGORY, DRAPER, LIME, DRISCOLL, TARBILL, HAMACK, MCGIRR; ACTING INSTRUCTOR RUSSELL; LECTURERS, MCCONAHAY, DAVIS, ROBERTSON, HENDERSON; ASSOCIATES, VAN DE WALKER, FARWELL; TEACHING FELLOWS, TROWE, BACHELOR, WILCOX, DICKERSON, BUTTERBAUGH, FELLOWS, BLAINE; STUDENT ASSISTANTS WOODBRIDGE, LAMONT, NEWMAN, WERNER, ZENER.

Those students in Liberal Arts choosing economics as their major, should consult with the head of the department or the professor in charge of Advanced Economics with regard to a proper selection of courses. The following courses may be regarded as available for such students: 1, 2, 57, 58, 61, 104, 105, 106, 121, 123, 127, 159, 160, 161, 162, 164, 165, 168, 201, 205, 207.

1. *General Economics*.—Introductory course covering general principles of economics. Prerequisite to all sophomore, junior and senior courses in bus. admin. Fee, \$1.50. Five credits; autumn, winter, spring, summer.

Miller and staff

2. *General Economics*.—Same as B.A. 1 above, abbreviated for chemistry, pharmacy, forestry and fisheries. Fee, \$1.50; Three credits; spring.

Miller and staff.

7. *Economic Resources of the World*.—Study of world's principal agricultural and mineral resources; geographical distribution and development; governmental policies of conversation; world commerce, trade routes. Fee, \$1.50. Five credits; autumn, winter, spring.

Henderson.

11. *First Year Accounting*.—First half. Functions of accounts; trial balances; balance sheets; profit and loss statements; books of original entry; ledgers; business forms and papers. Given all four quarters. Fee \$5.50. Five credits. Sections: Woodbridge, Butterbaugh, Dickerson.

12. *First Year Accounting*.—Second Half. Accounts peculiar to partnerships and corporations; correct classification of accounts; manufacturing and cost accounts; controlling accounts and subsidiary ledgers; voucher system. Given all four quarters. Fee, \$5.50. Five credits. Sections: McGirr, Trow, Lamont.

52. *Navigation*.—Correction of courses; the sailings, dead reckoning, piloting, latitude, longitude, azimuth, amplitude, determination of position at sea by the methods of Marc Saint Hilaire and Aquino; compass adjusting. Fee, \$1.50. Five credits; spring and summer.

Farwell.

54. *Business Law*.—Fundamental principles of law. The more general and practical principles are developed from problems and selected cases, particularly as related to the law of contracts, property, agency, negotiable papers; insurance partnership and corporations with special lectures on the statutory regulations pertaining thereto. Fee, \$1.50. Three credits; autumn.

Ayer.

55. *Business Law*.—A continuation of B.A. 54. Fee, \$1.50. Three credits; winter.

Dracorp Ayer.

56. *Business Law*.—A continuation of B.A. 55. Fee, \$1.50. Three credits; spring.

Ayer.

57. *Money and Banking*.—An introductory course. Among the subjects considered are the functions of money; standards of value; financial conditions, and the principles of banking with special reference to the banking system of the United States. Prerequisite, B.A. 1 Fee, \$1.50. Five credits; autumn, winter, spring.

Preston.

58. *Risk and Insurance.*—Study of the risk factor in its economic and social consequence; ways of meeting risk; the general broad outline of life, fire and other insurance. Prerequisite, B.A. 1. Fee \$1.50. Five credits; autumn. Smith.

61. *Social and Economic Standards of Living.*—Their origin and development; class standards and their influence on industry. A comparative study of budgets. Prerequisite, B.A. 1. Fee, \$1.50. Five credits; autumn, winter, spring. McMahon.

64. *Second Year Accounting.*—First Half. Preparation of balance sheets and profit and loss statements; factory costs; general principles of valuation; causes and methods of treating depreciation; capital and revenue concepts. Given all four quarters. Prerequisite, B.A. 11-12. Fee, \$3.50. Five credits. Sections: Gregory and Tarbill.

65. *Second Year Accounting.*—Second Half. Valuation of balance sheet and revenue statement items; surplus and reserves; dividends; sinking funds; liquidation of partnerships and corporations; consolidated balance sheets; reports of trustees and receivers. Given all four quarters. Prerequisite, B.A. 11-12. Fee, \$3.50. Five credits. Sections: Draper and Van de Walker.

66. *Ship Operation.*—Types of vessels, with reference to materials and methods of construction, stress and stability of hulls, methods of propulsion, measurement, stowage of cargo. Fee, \$1.50. Five credits; autumn and winter. Farwell.

67. *Paper Work in Shipping.*—Study of the forms used in documenting, entering and clearing, and in making coastwise and foreign shipments, with the solution of a number of practice problems. Fee, \$1.50. Five credits; autumn and winter. Farwell.

81. *Typewriting I.*—Beginners' course in typewriting technique. Two class hours and eight practice hours weekly. Fee \$10. No credit; autumn, winter, spring. Hamack and Newman.

82. *Typewriting II.*—Continuation of B.A. 81, with attention to speed, accuracy, form, etc. Fee \$10. No credit; autumn, winter, spring. Hamack.

83. *Office Training.*—Designed to familiarize the student with the work of the business office. The laboratory method is used as far as facilities will permit; this training supplemented by surveys of the office equipment and routine in some of the local business establishments. Prerequisites, B. A. 81, 82, 84, 85. Fee \$10. Three credits; autumn, winter, spring. Hamack.

84. *Shorthand I.*—Beginner's course in shorthand theory and technique. Fee \$10. No credit; autumn, winter, spring. Hamack.

85. *Shorthand II.*—Continuation of B.A. 84. Fee \$10. No credit; autumn, winter, spring. Hamack.

86. *Shorthand III.*—Continuation of B.A. 85, with dictation. Fee, \$10. No credit; autumn; winter, spring. Hamack.

87. *Practical Reporting.*—Training and drill are given in reporting court procedure, sermons, conference discussion and debate, etc. Fee, \$10. No credit. Prerequisites, B.A. 84, 85, 86. Autumn, winter, spring. Hamack.

101. *Secretarial Training.*—The functions of the secretary, modern methods of organizing, systematizing, the work of the ordinary business office. Includes study of the use of office appliances, indexing, filing, refer-

ence work, interviewing, business ethics, practical details of office work. Prerequisites, B.A. 81, 82, 84, 85 or equivalent. Fee, \$1.50. Five credits; autumn. Draper.

102. *Office Management*.—General survey of the office manager's problems of office administration. Attacks the problem of office control by the various activities and study each in relation to all the others. Fee, \$1.50. Five credits; winter. Draper.

104. *Economics of Transportation*.—Study of the relation of transportation to industry and society; development and present status of American transportation system; organization of the service; traffic associations; classification territories; routes; traffic agreements; rates and regulations. Prerequisite, B.A. 1. Fee, \$1.50. Five credits; autumn. Kibler.

105. *Business Organizations*.—Study of business corporations, associations, combinations; special reference to their functions, operation, advantages and disadvantages; relation to the anti-trust laws. Prerequisite, 10 hours of economics and business administration, including B.A. 1. Fee, \$1.50. Five credits; autumn. Custis.

106. *Economics of Markets*.—Application of the principles of economic theory to problems of marketing; a general survey of modern marketing methods in raw and manufactured products. Prerequisite, B.A. 1. Fee, \$1.50. Five credits; autumn. Lewis.

109. *Marketing of Lumber*.—Study of the inter-relations of manufacturers, wholesalers and retailers of lumber applying economic principles to effective methods of marketing lumber. Fee, \$1.50. Five credits; spring. Russell.

111. *Third Year Accounting*.—First Half. Advanced partnership and cooperation accounting; nature of profits, dividends, the legal status of same; statement of affairs; realization and liquidation accounts. Fee, \$3.50. Prerequisites, B.A. 64-65. Five credits; autumn, winter, spring. Cox and McConahey.

112. *Third Year Accounting*.—Second Half. Bond and stock issue problems; premiums and discounts on securities; funds and reserves; mergers and consolidations; graphs and comparative statements; estate accounting. Prerequisites, B.A. 64-65. Fee, \$3.50. Five credits; autumn, winter, spring. Cox and McConahey.

113. *Ports and Terminals*.—Study of the factors of a well coordinated port; modern terminal facilities representative river, lake and sea ports. Fee, \$1.50. Three credits; autumn and winter. Farwell.

119. *Water Transportation*.—Study of the economics of shipping with particular reference to organization and management; ship building and operating costs; rate practice and control; pools, agreements and conferences; ocean routes; shipping subsidies, etc. Fee, \$1.50. Five credits; spring and summer. Farwell.

120. *Business Report Writing*.—Study of the methods of securing and arranging facts, use of references, preparation of outlines, effective presentation of material including use of charts or graphs, checking or proof reading. Special attention to accounting papers. Fee, \$1.50. Five credits; autumn, winter, spring. Leib.

121. *Corporation Finance*.—Financial problems connected with the promotion of corporations, underwriting and sale of securities, management, expansion and reorganization of those that are unsuccessful. Prerequisites, B.A. 1, 11-12. Fee, \$1.50. Five credits; winter. Custis.

122. *Railroad Finance and Administration*.—Study of the organization and administration of the departments of the modern American railroad with comparative study of foreign systems. Survey of Federal administration. Prerequisite, B.A. 104. Fee \$1.50. Five credits; winter. Kibler.

123. *Investments and Speculation*.—Distinction between investment and speculation; selection of sound investments; how investments are made; character of the investment market; relation to the money market. Prerequisite, B.A. 121. Five credits; spring. Custis.

125. *Banking Practice*.—Practical survey of methods and machinery of bank operations. Internal organization of the bank; relation of the different functions; accounting methods; finding costs for the bank; problems of bank administration. Prerequisites, B.A. 11-12, 57. Fee, \$1.50. Five credits; winter. Preston.

126. *Commercial Credits*.—Essential considerations in the extension of credit; the credit department; sources of information; credit analysis; credit insurance; practical problems. Prerequisite, B.A. 57. Fee, \$1.50. Five credits; winter. Russell.

127. *Foreign Exchange and International Banking*.—Theory of international exchange; rates of exchange; financing imports and exports; specie movements; foreign money market factors; foreign banking by American institutions; financing foreign trade; the present status of the foreign exchange situation. Prerequisite, B.A. 57. Fee, \$1.50. Five credits; autumn. Preston

See next year as 136 & 137
137. *Economics of Advertising*.—Fundamental economic principles applied to the proper relations of advertising to product, sales plans and media. Fee, \$1.50. Five credits; winter. Russell.

138. *Sales Management*.—Selling methods and the organization of the sales force. The personal side of the technique of marketing and merchandising. Required investigation in the different fields. Prerequisite B. A. 106. Fee \$1.50. Five credits; autumn. Russell.

141. *Fire Insurance*.—Theory and practice of fire insurance; study of clauses in standard fire policies; apportionment of losses; rate making; fire prevention. Prerequisite, B.A. 58. Fee, \$1.50. Five credits; autumn. Smith.

142. *Life Insurance*.—Functions of life insurance; premiums; reserves; kind of companies and policies; dividends; lapses. Disability, group and industrial insurance. State regulations of life insurance business, Prerequisites, B.A. 58. Fee, \$1.50. Five credits; spring. Smith.

149. *Marine Insurance*.—History, principles and practice of marine insurance as applied to ships, freight and cargo. Prerequisites, B.A. 58. Fee, \$1.50. Five credits; winter. Smith.

151. *Rail and Marine Rates*.—A study of the principles governing the making of rates and the interpretation of federal and state statutes affecting rail and water rates; influence of competitive forces; traffic geography; classifications; rate adjustments; survey of decisions of commissions and courts, interstate and local rate problems. Prerequisite, B.A. 104. Fee, \$1.50. Five credits; spring. Kibler.

152. *Shipping and Consular Regulations*.—Study of navigation laws relating to prevention of collisions at sea, inspection of vessels; employment of seamen; carrying of cargo and passengers; towage and pilotage; wharfage

and moorage; liability of vessels and owner; duties of consular officials; administration of the navigation laws. Fee, \$1.50. Three credits; spring and summer. Farwell.

154. *Corporation Accounting*.—Different corporation securities; corporation records, accounts; stock and dividend transactions; funds and reserves; redemption of bonds; preparation of corporate reports; methods of consolidation; reorganization, receivership and dissolution. Fee, \$3.50. Five credits; autumn. McConahey.

155. *Cost Accounting*.—Production factors; cost finding methods for different business; material, labor records; distribution of indirect expense; preparation of operating statement; production, service departments; cost reports for administration officials. Fee, \$3.50. Five credits; winter. McConahey.

156. *Auditing*.—Auditing procedure; balance sheet audits; analysis of asset and liability values; profit and loss statement audits; analysis of income and expense; certifications and reports; classification of audits and investigations. Fee, \$3.50. Five credits; autumn. Davis.

157. *Income Tax Accounting*.—Government decisions affecting the practical determination of taxable income; persons, corporations, partnerships subject to the tax; exemption and exceptions; deductions and allowances; preparation and analysis of returns. Fee, \$3.50. Five credits; winter. *Burton* McConahey.

158. *Accounting Systems*.—Organization and duties of accounting department in business concerns; suggested systems for various types of business. Fee, \$3.50. Five credits; spring. Davis.

159. *Advanced Money and Banking*.—Critical study of selected topics in monetary science and business finance; value of money; financial effects of the great war, the Federal Reserve system, agricultural credit, business cycles. Prerequisite, B. A. 57. Fee, \$1.50. Five credits; spring. Preston.

160. *Advanced Economics*.—For seniors and graduate students; thorough training in economic theory, application to concrete problems. Prerequisite, B.A. 1 and senior standing. Fee, \$1.50. Five credits; autumn, winter, spring. Moriarty.

161. *American Labor Problems*.—Course showing the relation between the development of the American Labor Movement and free lands, immigration, economic organization prices, industrial crises. Prerequisite, B. A. 1. Fee, \$1.50. Five credits; autumn. McMahan.

162. *European Labor Problems*.—Comparative study of labor movements of modern Europe; economic and political backgrounds, in relation to types of labor organizations. Prerequisite, B.A. 1. Fee, \$1.50. Five credits; winter. McMahan.

164. *Labor Legislation*.—Development of the law, its interpretation in the solution of the American and European labor problems. Prerequisite, B.A. 1. Fee, \$1.50. Two credits; spring. McMahan.

165. *Economics of Consumption*.—Historical development of human wants in relation to the economic laws of consumption; influence on the production and distribution of wealth. Attempts made to control consumption through private and governmental agencies. Prerequisite, B.A. 1. Fee, \$1.50. Three credits; spring. McMahan.

*166. *Women in Industry.*

167. *Industrial and Employment Management.*—Study of the organization and administration of industrial enterprises; factors in plant location; types of factory building; equipment of the plant; departments; executive control; labor policies; wages; service and welfare features; scientific management; employee representation. Practice in representative business establishments. Should be preceded by B.A. 105 and B.A. 161 or equivalents. Fee, \$1.50. Five credits; winter and spring. Leib.

168. *History of Economic Thought.*—Study of the chief contributors to economic theory from Adam Smith to Bohn-Bawerk as a basis for understanding present economic problems. Prerequisite, B.A. 1. Fee, \$1.50. Five credits; winter. Moriarty.

*169. *The Economics of Distribution.*

170. *Real Estate and Casualty Insurance.*—Study of real estate transactions, interests, liens, sales, transfers, mortgages, valuations, title, credit, fidelity, automobile, tornado and miscellaneous forms of property and liability insurance. Prerequisite, B.A. 1. Fee, \$1.50. Five credits; spring. Smith.

171. *Exporting and Importing.*—The technique of exporting and importing; the administration and operation of exporting and importing departments; analysis of markets; preparation of documents and calculation of values of staples and of manufactured products and the financing of shipments. Prerequisites, B.A. 1 and 7. Fee, \$1.50. Five credits; autumn. Lewis.

173. *Commercial Policies.*—Study of the commercial policies of the nations of the world in connection with the development of American foreign trade. Fee, \$1.50. Five credits; autumn. Driscoll.

174. *International Commercial Relations.*—Study of the rules and regulations of states applying to foreign commerce; with special attention devoted to conflicts of commercial interests; commercial treaties; effect of war upon commerce. Fee, \$1.50. Five credits; winter. Driscoll.

175. *Business Statistics.*—Collection, presentation and interpretation of statistical data relating to business operations, including consideration of business barometers, market analysis, sales and advertising. Prerequisite, Math. 13. Fee, \$1.50. Five credits; spring. Lewis.

177. *Trade of Far and Near East.*—Intensive study of resources and trade of China, Japan, Siberia, the Philippines, French-Indo China, Siam, India, The Malay-Peninsula, the Dutch East Indies, Australasia, Persia, Mesopotamia, Syria, Arabia, Turkey and the Balkan States. Prerequisite, B.A. 7. Fee, \$1.50. Five credits; winter. Lewis.

178. *Trade of Europe.*—An intensive study of the resources of Europe and Africa, and of the trade relations of these sections with the rest of the world, especially the United States. Prerequisite, B.A. 7. Fee, \$1.50. Five credits; winter. Lewis.

180. *Trade of the Americas.* Intensive study of the resources and trade of Mexico and the Central American and South American countries. Prerequisite, B.A. 7. Fee, \$1.50. Five credits; spring. Lewis.

185. *C.P.A. Problems.*—Selected problems covering various accounting principles. Work taken from American Institute and state C.P.A. examinations. Emphasis is placed on speed, accuracy and forms of presentation. Fee, \$3.50. Five credits; spring. McConahey.

187 *ABC. Research in Secretarial Training.*—Two-five credits; autumn, winter, spring. Hours to be arranged. Draper

191 *ABC. Research in Accounting.*—Two-five credits; autumn, winter, spring. Hours to be arranged. *OK for 1cr. for M Jones for fall* Cox.

192 *ABC. Research in Insurance.*—Two-five credits; autumn, winter, spring. Hours to be arranged. Smith.

193 *ABC. Research in Transportation.*—Two-five credits; autumn, winter, spring. Hours to be arranged. Kibler.

195 *ABC. Research in Foreign Trade.*—Two-five credits; autumn, winter, spring. Hours to be arranged. Lewis.

196 *ABC. Research in Business Administration and Industrial Management.*—Two-five credits; autumn, winter, spring. Hours to be arranged. Leib.

197 *ABC. Research in Business Finance.*—Two-five credits; autumn, winter, spring. Hours to be arranged. Custis.

198 *ABC. Research in Marketing and Advertising.*—Two-five credits; autumn, winter, spring. Hours to be arranged. Moriarty.

199 *ABC. Industrial Research.*—Two-five credits; autumn, winter, spring. Hours to be arranged. Tarbill.

COURSES 200 AND OVER—PREREQUISITE, GRADUATE STANDING

201 *ABC. Seminar in Economics and Business Administration.*—Two-five credits; autumn, winter, spring. Miller and Custis.

203 *ABC Auditing Technique.*—Five credits; autumn, winter, spring. Daily 7:30 p.m. Robertson.

205 *C. Economic Problems.*—More intensive study of special economic problems than is possible in B.A. 160. Interaction of economics tendencies and their application to fundamental economic problems in business and political life. Prerequisite, B.A. 160 or 168. Fee, \$1.50. Five credits; spring. Moriarty.

207 *ABC. Seminar in Labor.*—Two-five credits; autumn, winter, spring. Hours to be arranged. McMahon.

NOTE: For the teachers' Course (Commercial Teachers' Course) see department of education. Educ. 160.D.

EDUCATION

Education Hall

PROFESSORS BOLTON, AYER, RANDOLPH; ASSISTANT PROFESSORS WILLIAMS, TERRY, HINES; ASSOCIATE ROBERTS; TEACHING FELLOW, HUGHES

I. MINIMUM REQUIREMENTS FOR NORMAL DIPLOMA

101.—*Introduction to the Study of Education.*—A general course covering the field of education. Open to all sophomores who have earned 65 quarter

hours of credit and prerequisites to all other courses in education. Five credits; autumn, winter, spring, or summer. Ayer.

140 110. *Psychology of Teaching Methods*.—An attempt to discover the psychological foundation of methods. The application of these to concrete illustrations of teaching. Especially applied to high school instruction. Prerequisite Educ. 101. Five credits; autumn, winter, spring, or summer.

Bolton, Williams.

119 119. *Secondary Education*: Problems of the High School Teacher.—Secondary school curricula and closely related problems. Prerequisite, Educ. 101. Recommended also 110. Three credits; autumn, winter, spring, or summer.

Terry.

145. *Practice Teaching*.—One lecture each week, conferences with the instructor, assigned readings, and one period each day during the quarter devoted to observation and practice teaching under supervision in the Seattle city schools. As far as possible the details of the course are arranged to meet individual needs. Prerequisite, Educ. 101, 110, 119. Five credits; (For Phys. Educ. majors, two, three or five credits.) Autumn, winter or spring. Roberts.

Courses 101 and 110 are prerequisite to courses 160.C to 160.U. One of the "teachers' courses" required for the normal diploma.

160.C. *Teachers' Course in Latin*.—Methods and problems in the teaching of high school Latin. Prerequisite, Latin 50 or 60 or 70. Except by special arrangement this course must be taken in combination with Latin 107. Two credits; autumn

Clark.

160.D. *Commercial Teachers' Course*.—Typical business courses are examined and made the basis for discussions in relation to the needs of local business conditions; a study of the content of high school commercial courses and of texts. Prerequisites, B.A. 11-12, 64-65, 81, 82, 84, and 85. Fee \$1.50. Five credits; spring.

Draper.

160.E. *Teachers' Course in English*.—Methods and problems in the teaching of English in the high school. Continued in the winter and spring quarter as English 188, 189. Two credits; autumn.

Garrett

160.F. *Teachers' Course in Geography*.—The teaching of geography, physical geography, and commercial geography in the schools. Prerequisites, one term of geology, physiography and geography. Two credits; winter.

Saunders.

160.G. *Teachers' Course in German*.—Aims and methods in their application to the teaching of German; lesson plans; courses of study for high schools; textbooks and aids in teaching; coaching of underclassmen in elementary classes. Prerequisite, Ger. 110. Two credits; spring.

Eckelman.

160.H. *Methods of History Teaching*.—With special reference to the work of the high school. Required of majors in history who expect to teach. Five credits; spring.

McMahon.

160I.-160J. *Teachers' Course in Home Economics*.—Curricula, methods of teaching and equipment. Prerequisite, H.E. 5-6, 107, 112-113, 143, 144, 145; Arch 1-2; Physics. 89-90; Bact. 101. Three recitations. Three credits each quarter; autumn, winter.

Raitt, Denny.

160.M. *Teaching of Mathematics*.—A consideration of the problems peculiar to the teaching of high school mathematics. The nature and value of mathematics with their pedagogic bearings. A critical review of courses and methods of teaching. Examination of recent high school texts. Required of mathematics majors who are candidates for the normal diploma. Prerequisite Math. 109. Two credits; spring.

Winger.

160.N. *Teachers' Course in School Music*.—Prerequisite, Music 113, 114. Two credits; spring. Dickey.

160.O. *Civics in Secondary Schools*.—Attitude of approach, arrangement of material, methods of presentation; the development of an appreciation of the reality of our political system; and in handling political facts; the use of material, textbooks, current articles, legislative bills, sample ballots, observation of local government agencies, etc. Surveys the content of civics courses with reference to historical origins, government structure and functions and present day political life. Two credits; spring. Laube.

160.P. *Methods of Teaching Art*.—Courses of study methods and material. Two credits; autumn. Rhoades.

160.R. *Teachers' Course in Physical Education*.—The study of curricula, application of educational principles to the teaching of physical education, administration in public schools. Prerequisites, Phys. Educ. 101-102-103, 104-105-106, 111-112-113. Two credits; autumn quarter. Gross.

160.T. *Teachers' Course in French*.—Aims, and methods best suited to attain them. Prerequisites, French 41, 101, 102, 103, 158, and 159. Two credits; spring. Frein.

160.U. *Teachers' Course in Spanish*.—Methods of teaching Spanish. Practice in the classroom. Prerequisites, Span. 101, 102; Span. 103 and 191 must be taken concurrently with 159. Two credits; spring. Ober.

160Z. *Teachers' Course in Zoology*.—For students preparing to teach zoology in high schools. Lab. fee, \$1. Prerequisite, Zool. 1-2. Two credits; winter. Gunthorp.

II. ADVANCED UNDERGRADUATES AND GRADUATES

To be admitted to courses in this group (II) students must have earned at least 10 credits in education, including courses 101, 110.

186
150. *Introduction to Educational Measurements*.—A study of the development of the use of tests and scales in improving instruction in the public schools. Consideration of elementary statistical methods, intelligence tests and subject tests. Lab. fee, \$3. Three credits; autumn, winter or spring. Hines.

85
151. *Educational Sociology. Social Foundations*.—A brief perspective over the nature of the fundamental social structures and their relation to progress, followed by a special application of modern social knowledge to the problems promoting human welfare through educational activities. Three credits; autumn, winter, spring, or summer. Randolph.

new
152. *Social Surveys of School Studies and Activities*.—A critical study of the literature seeking to evaluate the existing materials and to suggest fruitful reconstruction in the light of social needs. Two credits; autumn, winter, spring, or summer. Randolph.

154. *Junior High School*.—History of the movement for reorganization; functions and features of this new organization. Prerequisite, Educ. 119. Two credits; autumn, winter. Terry.

156
156. *High School Organization: The High School Principal*. Supervision in high school including the school population, extra-curricular activities, publicity, cooperative curriculum making, etc. Prerequisite, Educ. 119. Two credits; autumn, winter, spring. Terry.

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196-197-198. Individual Mental Testing.—A study of the concept of intelligence with its practical bearing upon school and social ability. Demonstration and practice is given in applying the Stanford Revision of the Binet-Simon tests. Other individual tests considered. Designed for advanced students, teachers and principals. Two credits a quarter; autumn, winter, and spring. Five credits in summer. Laboratory fee, \$2 a quarter. Williams.

1212-213

211-212-213. *Comparative Education*.—The critical study of modern education in foreign countries, especially in Germany, France, England, Norway,

Sweden and Canada. Relations between social ideals of nations and their educational systems. Influence upon educational theories and practices in America. Two credits a quarter; autumn, winter, and spring. Bolton.

171
215. *Experimental Education*.—Method and practice in experimental procedure and technique in conducting experiments in connection with school work. Three double periods a week. Lab. fee \$2. Three credits; autumn. Williams.

185
221. *Educational Statistics*.—Covering theoretical and practical aspects of statistical methods as applied to education. Practice will be given in the treatment of statistical data. Prerequisite to Educ. 222 and 223. Three credits; autumn. Lab. fee \$2. Hines.

new
222. *Group Intelligence Tests*.—Critical survey of the literature of intelligence tests with especial reference to principles of measuring intelligence. Practice in giving the best and latest tests. Prerequisite Educ. 221. Lab. fee \$2. Three credits; winter. Hines.

new
223. *Educational Measurements in Supervision*.—An advanced course in subject tests. Practice in giving tests, scoring, and interpreting results. Covers both elementary and high school fields. Prerequisite, Educ. 221. Lab. fee \$3. Three credits; spring. Hines.

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231-232-233. *Advanced Educational Psychology*.—A survey of the contributions to educational psychology with special emphasis upon learning, its progress, conditions and effects. Two credits; autumn, winter, and spring. Williams.

new
241-242-243. *Current Literature of Education*.—Readings and discussions. Periodical lectures by members of staff. Course designed for well prepared students who desire to make a thoroughgoing investigation of present day problems in American education. Two credits a quarter; autumn, winter, and spring. Hines.

241-2-5
261-262-263. *Seminar in Educational Sociology*.—A survey of recent contributions to educational sociology and study of special problems. Two credits a quarter; autumn, winter, and spring. Randolph.

271-2-3
271-272-273. *Seminar in Educational Surveys*.—Development, functions, methods, and results of educational surveys as discovered by a critical examination of city, rural, vocational, and state educational surveys and literature of a related character. Practical survey work. Two credits a quarter; autumn, winter, spring. Ayer.

275-276-277. *Seminar in Secondary Education*.—A research course in the problems of high school administration and supervision. Two credits a quarter; autumn, winter, and spring. Terry.

new
278-284-287. *Seminar in Educational Measurements*.—Arranged especially for teachers of Seattle and vicinity. Statistical methods, group intelligence tests, and subject tests. Laboratory fee \$3. Two credits a quarter; autumn, winter, spring. Hines.

new
298-299-300. *Individual Research or Thesis Work*.—Intensive study and original investigation of special problems. Results are usually reported in one of the seminars and when especially meritorious may be published. The special problems are directed by the members of the department representing the fields of work chosen by the students. Credits to be arranged. Staff.

ELECTRICAL ENGINEERING

Engineering Hall

PROFESSOR MAGNUSSON; ASSOCIATE PROFESSORS LOEW, KIRSTEN;
ASSISTANT PROFESSOR CURTIS; INSTRUCTORS, SHUCK, KALIN, HOARD, TOLMIE, SMITH

101. Direct Currents.—Short course in continuous current machinery for non-electrical students, to be taken in connection with E.E. 102. Prerequisite, Phys. 98. Four credits; autumn, winter, spring. Kalin, Hoard.

102. Direct Currents Laboratory.—Short laboratory course in continuous current machinery for non-electrical students. Prerequisite, Phys. 98. Lab. deposit, \$4. Two credits; autumn, winter, spring. Shuck, Hoard, Kalin.

109. Direct Currents.—Theory of the electric and magnetic circuits; construction, operation and characteristics of direct current generators and motors. Prerequisite, Phys. 98. Four credits; autumn, winter, spring. Hoard, Tolmie.

110. Direct Currents Laboratory.—Laboratory work on direct current machinery. Prerequisite, Phys. 98. Lab. deposit, \$4. Two credits; autumn, winter, Spring. Shuck, Kalin.

111. Direct Currents.—Continuation of E.E. 109 in direct current machinery. Storage batteries. Regulation and control of direct current systems. To be taken in connection with E.E. 102. Prerequisite, E.E. 109. Four credits; autumn, winter, spring. Curtis, Shuck, Tolmie.

112. Direct Currents Laboratory.—Experimental work on direct current dynamo machinery and on storage batteries. Prerequisite, E.E. 110. Lab. deposit, \$4. Four credits; autumn, winter, spring. Curtis, Shuck.

15. Elementary Direct Currents.—(Extension Night Class). Laws of the electric and magnetic circuits with application to direct current machinery without the aid of advanced mathematics. For electricians having at least two years of practical experience with electrical machinery. Shuck.

20. Elementary Alternating Currents.—(Extension Night Class). An introduction to alternating current theory with experimental work on alternating current machinery. Prerequisite, E.E. 15. Shuck.

121. Alternating Currents.—Short course in alternating currents for non-electrical students. To be taken in connection with course 122. Prerequisite, E.E. 101. Four credits; autumn, winter, spring. Curtis, Hoard.

122. Alternating Currents Laboratory.—Experimental work on alternating current machinery. Prerequisite, E.E. 102. Laboratory deposit, \$4. Two credits; autumn, winter, spring. Curtis, Shuck.

131. Electric Communication.—Wire and radio telephone and telegraph. Theory, construction and operation of electric communication systems. Central telephone station practice. Junior or senior elective. Prerequisite, E.E. 109, 110. Four credits; autumn, spring. Tolmie.

****132. Telephones and Telegraphs.**—Details of automatic and manual switchboards; testing and locating faults; multiplex telegraphy; railway signal systems. Junior or senior elective. Prerequisite, E.E. 131. Lab. deposit, \$2. Three credits. Tolmie.

141. Illumination.—Electric lamps; commercial photometry; adaptation of electric lighting to commercial requirements. Junior or senior elective. Prerequisite, E.E. 109, 110. Lab. deposit, \$2. Four credits; winter. Hoard.

**Will be offered if a sufficient number of students elect the course.

152. *Electrical Machine Design*.—Complete design of one direct current generator or motor. Prerequisite, E.E. 111, 112. Five credits; autumn, winter, spring. Loew.

161. *Alternating Currents*.—Theory of singlephase and polyphase system; energy storage in magnetic and dielectric fields; vector diagrams and the symbolic methods of analysis; power factor and power measurements; hysteresis and eddy currents; theory of the transformer, singlephase and polyphase induction motors. Prerequisite, E.E. 111. Six credits; autumn, winter, spring. Magnusson, Loew.

162. *Alternating Currents Laboratory*.—Experimental work with alternating current machinery. Prerequisite, E.E. 112. To be taken in connection with E.E. 161. Lab. deposit, \$4. Four credits; autumn, winter, spring. Curtis, Shuck.

163. *Alternating Currents*.—Theory of alternators, rotary converters, synchronous and commutator motors and transmission lines; high tension phenomena; corona; commercial wave forms; unbalanced and inter-linked systems. Prerequisite, E.E. 161. Six credits; autumn, winter, spring. Magnusson, Loew.

164. *Alternating Current Laboratory*.—Prerequisite, E.E. 162. Lab. deposit, \$4. Four credits; autumn, winter, spring. Curtis, Hoard.

171. *Electric Railways*.—Equipment, roadbed, construction and operation. Prerequisite, E.E. 109, 110. Four credits; winter. Curtis.

173. *Central Stations*.—Location, design and operation of electric central stations. Prerequisite, E.E. 163, 164. ~~Three~~ ⁴ credits; autumn, spring. Kirsten.

175. *Power Transmission*.—Theory, design and operation of electric power transmission lines. Prerequisite, E.E. 163, 164. Four credits; autumn, spring. Loew.

181, 182. *Radio*.—Radio systems; lineal, open and complex oscillations; coupled circuits; resonance; transmitters; receivers; vacuum tubes in radio work; quenched and undamped oscillations. Prerequisites, E.E. 161, 162. Lab. deposit, \$2. Five credits a quarter; winter, spring. Tolmie.

186, 188. *Thesis*.—After consultation with the head of the department the student selects a suitable topic for investigation. Reports of progress are made weekly to the instructor in charge of the work selected. A complete report of the work is typewritten and bound and a copy deposited in the University library. Two to five credits a quarter; autumn, winter, spring. Magnusson, Loew, Kirsten, Curtis.

191. *Engineering Equations*.—A mathematical investigation of electrical phenomena with quantitative solutions of typical engineering problems. Prerequisite, E.E. 161, 162. Three credits; spring. Hoard.

195. *Electric Transients*.—The exponential law of simple transients; single and double energy transients; current oscillations and traveling waves; natural period of transmission lines; short circuit transients; surges; corona; lightning phenomena. Prerequisite, E.E. 161, 162. Two credits; autumn, winter, spring. Magnusson.

196. *Electric Transients Laboratory*.—To be taken in connection with E.E. 195. Prerequisite, E.E. 162. Lab. deposit, \$2. Two credits; autumn, winter, spring. Kalin.

198. *Electric Transients Laboratory*.—Continuation of E.E. 196. Lab. deposit, \$2. Two credits; autumn, winter, spring. Kalin.

210, 212, 214. *Research*.—Two to five credits per quarter; autumn, winter, spring. Magnusson, Loew, Kirsten, Curtis.

ENGLISH

Denny Hall

PROFESSORS PADELFOORD, PARRINGTON, BENHAM; ASSOCIATE PROFESSORS MILLIMAN, COX, GARRETT; ASSISTANT PROFESSORS, HARRISON, BENST; INSTRUCTOR, HENSHAW; ASSOCIATES, HAGGETT, P. JONES, BROWNING, MRS. BENST, VICKNER, KERRIGAN, SICKELS; ASSISTANTS, McCausland, Z. JONES, MARSHAND, MOHR; TEACHING FELLOWS, LEWIS, GUNDLACH, ARNESEN, FAIRBANKS, BRELAND; DEBATE COACH, BRELAND.

REQUIREMENTS FOR MAJOR STUDENTS

The plan of work for major students consists normally of, (1) a minimum of 27 hours work in lecture and recitation courses, and (2) a course of individual reading in English and American literature under departmental tutors, extending throughout the senior year.

At the conclusion of the senior year all major students are required to take an examination in the history of English literature and the plan of work should be designed to that end.

Candidates for the teacher's diploma are required to take Educ. 160. E and Eng. 188 and 189.

1-2-3. *Elementary Composition*.—A course in the principles and practice of composition, with conferences for personal criticism. The work done in this course is regarded as belonging rather to the high school than to the University. Those whose preliminary training has been superior are excused from the course on examination. A grade of "A" in course 1 excuses a student from course 2. Five credits for two quarters. For students in Fine Arts, three credits; autumn, winter, spring. Students intending to major in English are expected to enroll in sect. W, which combines practice in writing with the study of modern authors. Five credits; autumn, winter, spring.

Padelford in charge

4. *Elementary Composition*.—For students in engineering, forestry, fisheries, and pharmacy. Students are required to repeat the course if their work is not of high quality. Three credits for one quarter.

Padelford in charge

5. *Elementary Composition*.—A second quarter's work for students in fisheries and forestry. Three credits a quarter.

Padelford in charge

*21. *An Introduction to Poetry*.

24, 25, 26. *Nineteenth Century Essayists*.—A study of the main movements of thought and the conflict of ideas in the last century as represented in the prose writings of Hazlitt, Coleridge, Lamb, DeQuincey, Hunt, Macaulay, Spencer, Mill, Newman, Carlyle, Ruskin, Arnold, Huxley, Morris, Pater, and Stevenson. Five credits a quarter; autumn, winter, spring.

Henshaw

37. *Argumentation*.—Five credits; autumn.

38. *Debating*.—Prerequisite, Eng. 37. Five credits; winter.

Breland
Breland

39. *Debating*.—Prerequisite, Eng. 38. Five credits; spring. —

*40-41. *Development of the Oration*. *Breland - 500*

51, 52, 53. *Advanced Composition*.—Composition based upon model English and American essays. May be taken for upper division credit. Prerequisite, English 1-2. Two sections. Three credits a quarter; autumn, winter, spring. Milliman

54, 55, 56. *Advanced Composition*.—A practical course in criticism and style designed to give a critical and philosophical basis to one's judgments on men, affairs, literature and art. May be taken for upper division credit. Prerequisite, Eng. 1-2. Three credits a quarter; autumn, winter, spring. Cox

*61-62-63. *Versification*.

64, 65. *Literary Backgrounds*.—A study of important works in English literature. Open to all. Required in the freshman year of pre-journalism majors. Five credits a quarter; autumn, winter. Garrett

67, 68, 69. *Great American Writers*.—Studies in the works of Emerson, Hawthorne, Longfellow, Lowell, Whitman, Poe, Bryant, Whittier, Mark Twain, and others. Two credits a quarter; autumn, winter, spring. Milliman

70, 71. *Shakespeare*.—A detailed study of a few plays, with rapid reading of the remainder. Three credits a quarter; autumn, winter.

73, 74, 75. *Lower Division Contemporary Literature*.—Essay studies of European and American thought during the nineteenth century and later; followed by readings in poetry, novel and drama involving similar ideas. Three or five credits; autumn, winter, spring.

Milliman, Harrison, Ernst, —

81, 82, 83. *Literature of the English Colonies*.—Autumn quarter devoted to the study of the literature of Canada; winter quarter to the literature of Australasia and of South Africa; spring quarter to the English literature of India. Two credits a quarter; autumn, winter, spring. Garrett

98. *The Bible as Literature*.—A study of the literature of the Old Testament. Open to all students. Three credits a quarter; spring. Padelford

101. *Intercollegiate Debating*.—Students who represent the University in one or more intercollegiate debates are allowed two credits therefor, and the credit is entered as Eng. 101 for the quarter in which the debating takes place.

102. *Advanced Composition for Engineers*.—An elective course open to those engineering students who have done superior work in Eng. 4. Three credits for one quarter; winter, spring. Mrs. Ernst

104-105-106. *Contemporary Literature*.—Special studies in contemporary literature for advanced students. Three credits a quarter; autumn, winter, spring. Cox, Harrison, Ernst

124. *Chaucer*.—A study of the poetical works of Chaucer. Three credits; autumn. Garrett

125. *Medieval Literature*.—The life and the ideals of the Middle Ages and their influence upon modern literature. Texts read will include Piers Plowman, Aucassin and Nicolette, The Pearl, Malory's Morte D'Arthur. Three credits; winter. Garrett

126. *Mediaeval Literature (continued)*.—Texts read will include the mediaeval lyric and drama, Froissart, Dante, the Story of Burnt Njal, the Nibelungenlied. Three credits; spring. Garrett

*127, 128, 129. *Milton and His Contemporaries*.

130, 131, 132. *The English Drama*.—A study of plays representative of the origin and development of English drama. Three credits a quarter; autumn, winter, spring. Benham

133, 134, 135. *Main Tendencies in English Literature, I*.—A study in English national ideals, from the beginning to 1642, with consideration of significant literary figures and works. Open to sophomores who are expecting to major in English. Three credits a quarter; autumn, winter, spring. Benham

136, 137, 138. *Main Tendencies in English Literature, II*.—A study in English national ideals from 1642 to the present. Open to sophomores who are expecting to major in English. Three credits a quarter; autumn, winter, spring. Parrington

141, 142. *Social Ideals in Literature*.—A study of model commonwealths, and of such other literature as illustrates the development of social and economic thought. Three credits a quarter; winter, spring. Benham

*144, 145, 146. *Romantic Revolt*.

147, 148, 149. *The English Novel*.—A study of the movements in English prose fiction, with an analysis of some of the principal works. Two credits a quarter; autumn, winter, spring. Ernst

161-162-163. *American Literature from the Beginnings to the Year 1870*.—The autumn quarter deals with the period before 1800; the winter quarter, with Irving, Brown, Cooper, Bryant, Poe, and the slavery controversy; the spring quarter, with the New England group. Three credits a quarter; autumn, winter, spring. Parrington

164, 165, 166. *American Literature since 1870*.—The autumn quarter deals with the beginnings of realism; the winter quarter, with tendencies from 1900 to 1915; the spring quarter, with contemporary fiction and poetry. Three credits a quarter; autumn, winter, spring. Parrington

*167, 168, 169. *Present Day Tendencies in American Literature*.

174, 175, 176. *Nineteenth Century English Poetry*.—Wordsworth, Shelley, Keats, Tennyson, Browning; Swinburne, Morris, Arnold, Rossetti. Three credits a quarter; autumn, winter, spring. Padelford

183, 184, 185. *General Literature*.—A study of classical culture, with special reference to its influence on English literature. Three credits a quarter; autumn, winter, spring. Henshaw

*187. *Philosophy in Contemporary Drama*.

188, 189. *Advanced Teachers' Course*.—Methods and problems in the teaching of English in the high school. A continuation of Educ. 160E. Two credits a quarter; winter, spring. Garrett

191, 192, 193. *Major Conference*.—For senior students. Individual conferences for the purpose of effecting a correlation of studies and for guid-

ance in individual reading. Each student is expected to meet his instructor once a week in conference. Three credits a quarter; autumn, winter, spring.
Harrison, Cox, Ernst

*194, 195, 196.—*Studies in Romance.*

GRADUATE COURSES

201. *Introduction to Graduate Study.*—Studies in the methodology and bibliography of the English language and literature. Three credits; autumn.
Benham

*204, 205, 206. *Chaucer.* OK for M. A. Davis

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*207, 208, 209. *English Literature from Chaucer to Dryden.*

211, 212, 213. *English Literature of the Tudor Period.*—For the coming year the class will study the poetry of Edmund Spenser as a fusion of classical, mediaeval and Renaissance impulses and traditions. This course may be taken to advantage by students who have already studied Spenser during a summer session. Two to eight credits a quarter; autumn, winter, spring.
Padelford

221, 222, 223. *Modern English Literature.*—Studies in modern English and American literature from the mid-nineteenth century period to the present day. Two to eight credits a quarter; autumn, winter spring. Parrington

*224, 225, 226. *American Literature.*

Parrington

*227, 228, 229. *Literary Criticism.*

Cox

230, 231, 232. *Early English.*—The grammar of the early English. Readings in Old and Middle English authors. ~~Three~~ credits a quarter; autumn, winter, spring.
2
Benham

COURSES IN FOREIGN LITERATURE TAUGHT IN ENGLISH

(For details see foreign language departments)

German, 70-71; Greek 13-14; Italian, 181-182, 184; Oriental Languages, 50-51-52; Scandinavian, 180-181-182.

NOTE: For courses in Comparative Philology, see department of Scandinavian Languages and Literature.

For the teachers' course in English, see department of Education, Educ. 160-B.

FISHERIES

Fisheries Hall

PROFESSORS COBB, KINCAID; INSTRUCTORS, CRAWFORD, ANDERSON.

1, 2. *Introduction to Fisheries.*—A general review and history of the world's fisheries. Two credits a quarter; autumn, winter.
Cobb

3, 4, 5. *Ichthyology.*—Structure, classification and habits of economic fishes. Course 5 will also include other economic marine animals, particularly oysters and clams. Prerequisite, Zool. 1, 2. Laboratory deposit, \$3. Five credits a quarter; autumn, winter, spring.
Kincaid, Crawford.

6. *Pacific Fisheries.*—General review and history of the fisheries of the Pacific. Winter quarter is open to short course students. Two credits; winter, spring.
Cobb

*Not offered in 1922-1923

Courses 7,8,9,10,12,13.—(See short course subjects on page 14, College of Fisheries bulletin.)

101-102-103. Fish Culture.—Developmental history and artificial propagation of economic fishes, lobsters, etc. Prerequisite, Fish. 3, and Zool. 5. Laboratory deposit, \$3. Five credits a quarter; autumn, winter, spring. Crawford.

104-105. Fishery Methods.—Construction and uses of apparatus; handling and transportation of products, etc. Three lectures and two laboratory periods. Laboratory deposit, \$3. Five credits a quarter; winter, spring.

106-107. Preparation of Fishery Products.—Curing and preservation of fishery products. Prerequisite, Fish. 3 and 5. Three lectures and two laboratory periods. Laboratory deposit, \$4. Five credits a quarter; autumn, spring. Cobb, Anderson

112. Oyster and Clam Culture.—Development and propagation of oysters and clams. Prerequisite, Fish. 5. Laboratory fee, \$3. Five credits a quarter; autumn. Kincaid

115. The Economic Fishery Resources of North America.—A study of the fishery resources of the North American continent and adjacent seas, their development and commerce, and government policies of conservation. Three credits; spring. Cobb.

117. Diseases of Fish.—Nature and causes of disease in fishes. Prerequisite, Fish. 3-4-5. Lab. fee, \$3. Five credits; ~~autumn~~ *winter*

150, 151, 152. Problems in Fish or Shellfish Culture.—Students with the proper preparation, which should include at least 15 hours' work in fish culture or 15 hours' work in shellfish culture and Fish. 5, will be assigned special topics to be worked upon under the direction of one of the instructors. Five credits a quarter; autumn, winter, spring. Kincaid.

155, 156, 157. Problems in Fisheries.—Students with the proper preparation, which should include at least 15 hours' work in fishery methods and preparation of fishery products, will be assigned special topics to be worked upon under the direction of the instructor. Five credits a quarter; autumn, winter, spring. Cobb.

FORESTRY AND LUMBERING

Forest Products Laboratory

PROFESSORS WINKENWERDER, KIRKLAND; ASSOCIATE PROFESSOR CLARK;
ASSISTANT PROFESSOR GRONDAL; MR. ZIMMERMAN.

1. Elementary Dendrology.—Nomenclature, classification and identification of trees. A detailed study of all northwest species and of one type species of each genus of the important timber trees of North America. Prerequisite, high school botany. Required of freshmen. Two recitations, one quiz and two 3-hour laboratory periods a week, field trips additional. Laboratory deposit \$2.50. Five credits; autumn or spring.

Winkenwerder and assistant.

2. General Forestry.—A general survey to familiarize the student with the field of work he is about to enter. Required of freshmen. Three credits a quarter; autumn. Winkenwerder

3. General Forestry.—A continuation of For. 2 but need not be preceded by it. Three credits; winter. Winkenwerder

4. *Forest Protection*.—Its economic importance; forest fires, their prevention and control. Required of freshmen. Three credits; spring.

Winkenwerder.

5. *Woodcraft*.—Food and clothing, camp equipment and sanitation, packing a horse, and general woodcraft. A section will be arranged for students not enrolled in forestry if not less than 12 apply. Two lectures per week; demonstrations and practice work additional. Laboratory deposit, \$2.50. Two credits; autumn.

Clark.

6. *General Forestry*.—A general introductory course for students not majoring in forestry. This course is prerequisite to all other courses in forestry for non-majors in forestry primarily offered for students in the College of Business Administration who desire to prepare themselves for work in lumber marketing, others admitted until the section is full. Five credits; winter.

Winkenwerder.

51. *Forest Mensuration*.—Principles and methods of computing, scaling, cruising, mapping; the construction of volume tables, taper tables, form factors, etc. Open to short course students. Three recitations, two 3-hour laboratory periods. Laboratory deposit \$2.50. Five credits; winter.

Winkenwerder, Clark.

52. *Forest Mensuration*.—Methods of studying growth in diameter, height and volume; sample plot methods; construction and use of growth and yield tables. Three recitations and two 3-hour laboratory periods. Laboratory deposit, \$2.50. Five credits; spring.

Winkenwerder, Grondal.

53. *Construction*.—Trails, roads, logging railroads, telephone lines, wooden bridges, cabins, barns, and fences; clearing from the standpoint of United States Forest Service improvement work, and logging construction. Required of sophomores. Laboratory deposit, \$2.50. Three credits; autumn.

Clark and assistants.

57a. *Silvics*.—Climate, soil and life factors which determine character of forest vegetation. Form and character of the individual tree. Life history of the forest. Silvical characteristics of the tree species. Lectures and quiz. Required of sophomores. Prerequisite, 10 hours botany, For. 1 and 52. Three credits; autumn.

Kirkland.

57b. *Field Methods in Silviculture*.—To accompany 57 a. One 3-hour laboratory period. Elective. Laboratory deposit, \$2.50. One credit.

Kirkland.

58. *Silviculture*.—Regeneration of forests by natural reproduction, seeding or planting. Care of young, middle-aged and older stands. Required of sophomores. Prerequisite For. 57a. Laboratory deposit, \$2.50. Five credits; spring.

Kirkland.

101. *Wood Technology*.—Wood structure, leading to identification of the commercial timbers of the United States; physical properties of woods, kiln drying. Each student is required to prepare permanent microscopic mounts of fifty species. Required of juniors. Prerequisite to all courses in forest products; prerequisites, college botany, For. 1, 10 hours chemistry and general physics. Laboratory deposit, \$2.50. Five credits, autumn.

Grondal.

102. *Wood Identification*.—This course includes the laboratory work only of For. 101. Open to students in other departments. Prerequisite, college botany, 8 hours. Laboratory deposit, \$2.50. Two credits; autumn.

Grondal.

103. *Wood Analysis*.—Identification, physical properties and characteristics of woods used in building construction. Open only to students in architecture. Two credits; spring. Grondal.

104. *Timber Testing*.—Stresses, tests, theory of flexure, moisture and strength; mechanical properties of wood. Required of juniors. Prerequisite, Math. 54, 55, 56 and For. 101, general physics. Laboratory deposit, \$2.50. Five credits; spring. Zimmerman.

105. *Wood Preservation*.—Nature of decay of timber and methods and economics of preservation. Laboratory work with the college treating plant and reports on local creosoting plants. Required of juniors and graduates. Prerequisites, For. 101 and one year of chemistry. Laboratory deposit \$3. Five credits; spring. Grondal.

110. *Characteristics of Trees*.—Identification, distribution, life habits, and uses of trees of the Pacific Northwest. Offered only to students not enrolled in the College of Forestry. Two lectures weekly and occasional field trips. Two credits; spring. Winkenwerder.

112. *Properties and Uses of Woods*.—Offered only as a correspondence course. Grondal.

119. *Forest Administration*.—Objects, principles and methods of administering private and public forests and forest industries. Prerequisite, For. 126 or may be taken concurrently. Three credits; winter. Kirkland.

126. *Forest Economics*.—The forests of the United States, their uses, their relation to other industries and resources. Statistics of production and consumption. Required of juniors or seniors in forestry and open to students in other departments. Prerequisite, B.A. 1. Three credits; winter. Kirkland.

Given fall for R. E. Ferguson

151. *Forest Finance and Valuation*.—Mathematics of forest finance; compound interest calculations applied to forest operations; application of financial tests to silvicultural and other forest measures; cost of growing timber; valuation of land for forest production; valuation of mature or immature timber and of damage to forests. Required of students in senior or graduate year. Prerequisites, For. 52 and 58. Five credits; autumn. Kirkland.

152. *Forest Organization*.—Principles of forest organization and regulation of the cut; advantages of foresight and planning in forest operations for a term of years in advance; sustained yield management of forests; forest working plans. Required of students in senior or graduate year. Prerequisite, For. 151. Five credits; winter. Kirkland.

153. *General Lumbering*.—Prerequisite to all courses in logging and milling. Comparative methods of lumbering on the Pacific Coast and in other lumbering regions of the United States. Required of juniors. Five credits; autumn. Clark.

157. *Lumber and its Uses*.—Wood structure, leading to identification of local species; the physical and mechanical properties of wood; kiln drying and other milling practices; economic uses of lumber in construction, wood preservation. Primarily for students in the College of Business Administration (not open to students majoring in forestry). Prerequisite, For. 6. Four class periods and one 3-hour laboratory period. Five credits; winter. Grondal.

158. *Forest Utilization.*—Pulp and paper manufacture, tannic acid, naval stores and other secondary forest products; lumber and its economic uses in construction. Required of juniors and graduates. Prerequisite, For. 101, and one year in chemistry. Five credits; winter. Grondal.

159. *Scientific Management.*—Fundamental principles of scientific management, with special reference to the lumber industry. Given in alternate years, not in 1923-1924. Two credits; autumn. Kirkland.

183. *Milling.*—The sawmill; yard arrangements; practical operation, practical problems at local saw-mills. For seniors and graduates. Prerequisites, M.E. 82, For. 153, 158, 104. Five credits; autumn. Grondal.

184. *Manufacturing Problems.*—Technical trade requirements, routine of sawmill practice; relation of waste to marketing, lumber grades and their uses. Prerequisite, For. 183. Three credits; winter. Grondal.

185-186-187. *Logging Engineering.*—Logging machinery and equipment, organization of logging companies, construction of railroads, camps, etc. Lectures, demonstrations at plants manufacturing logging machinery, and field work in nearby logging camps. During the third quarter all the work is transferred to the field, where extensive work in logging engineering is carried on. No credit is given for 186 unless followed by 187. Primarily for seniors and graduates. Prerequisites, For. 52, 53, 58, 104, 153, M.E. 82, C.E. 22. Laboratory deposit for 187, \$3. Four credits a quarter, autumn and winter; sixteen credits; spring. Clark.

188, 189. *Advanced Forest Products.*—Advanced studies in wood technology and utilization, with individual problems. A laboratory course. Prerequisite, For. 101, 158. Laboratory deposit \$3. Five credits. Any quarter. Grondal.

201. *Forest Geography.*—Advanced dendrology. Silvicultural regions, their relation to regional industrial development and the general problems of lumbering and management. Prerequisite, senior or graduate standing in the College of Forestry. Three credits; autumn. Winkenwerder.

202 *Thesis* — 3 cr
208, 209 *Seminar.*—Reviews, assigned readings, reports, and discussions on current periodical literature and the more recent Forest Service publications. Prerequisite, senior or graduate standing in the College of Forestry. Two credits a quarter; autumn, winter. Winkenwerder, Kirkland, Grondal.

213, 214, 215. *Senior or Graduate Research.*—Credits to be arranged any quarter. Instructors assigned according to nature of work. Not open to students below senior standing. Laboratory deposit, \$3.

221. *Forest History and Policy.*—Forest policy of the United States; forestry in the states and island possessions; the rise of forestry abroad. Prerequisite, senior or graduate standing. Three credits; autumn. Kirkland.

223. *Advanced Forest Management.*—About one week of field work on a tract of 50,000 to 100,000 acres on which data concerning different soil classes, forest types, etc., and the volume of timber is already available. This work will be followed by the actual formation of a working plan providing for regulation of the yield and organization of all forest work on the area, with estimates of outlay and income. Prerequisite, For. 151-152. Eight credits; spring. Kirkland.

224. *Advanced Milling and Marketing*.—Sawmill design and a detailed study of special problems in sawmill operation and management. Prerequisites, senior or graduate standing, For. 183, 184. Five credits, spring.

Grondal.

(For short course subjects see College of Forestry bulletin, pages 18, 19.)

GEOLOGY

Science Hall

PROFESSOR LANDES; ASSISTANT PROFESSORS SAUNDERS, GOODSPEED;
INSTRUCTOR HANNA.

Courses in the department are grouped to lead into different fields of geological work, as follows:

General Geology: Courses 1-9, 100-109, 200-209.

Geography, Climatology, and Physiography: Courses 10-19, 110-119, 210-219.

Mineralogy, Petrography and Economic Geology: Courses 20-29, 120-129, 220-239.

Paleontology and Stratigraphy: Courses 30-39, 130-139, 230-239.

1. *General Geology*.—Physical. Geological agencies and processes affecting the earth. Lectures and laboratory work, with occasional half-day field trips. Lab. fee, \$2.50. Five credits; autumn or winter. Goodspeed

2. *General Geology*.—Historical. Continuation of course 1, dealing with the origin and evolution of the earth. Lectures and laboratory work, with some field excursions. Prerequisite, Geol. 1, 5, or 12. Lab. fee, \$2.50. Five credits; autumn, winter, spring. Hanna

4. *Principles of Geology*.—Historical. The earth's origin and the general history of the continent. For College of Mines students only. Lectures, recitations and field trips, without laboratory work. Three credits; spring. Hanna

5. *Engineering Geology*.—A survey of the field of general geology, for the special needs of students in civil and chemical engineering and forestry. Lab. fee, \$2.50. Five credits; spring. Goodspeed

10. *Modern Geography*.—Introductory study of the problems of modern geography; the scientific investigation of geographic environment and its influence; use of maps and charts; geographic control of production and trade; study of the major geographic features of the continents. Five credits; autumn. Saunders

11. *Meteorology and Elementary Climatology*.—Weather elements and controls; causes and effects of atmospheric conditions; principles and methods of weather forecasting and use of instruments. With or without laboratory work. Lab. fee, \$1. Three or five credits; winter. Saunders

12. *Physiography*.—Land forms or earth's features with reference to origin and characteristic changes under different agencies during the geographic cycles. Occasional field trips. With or without laboratory work. Lab. fee, \$1. Three or five credits; spring. Saunders

21. *Mineralogy*.—A brief study of crystallography followed by descriptive mineralogy and blowpipe methods. At least a high school course in chemistry is essential as a prerequisite, and a quarter in general geology is desirable. Lab. fee, \$3. Five credits; winter. Goodspeed

31. *General Paleontology*.—A consideration of the broad principles of paleontology. An elementary course open to all students. Prerequisite, Geol. 1 or 5. Lab. fee, \$2.50. Five credits; autumn. Hanna

107. *Geology of Washington*.—Lectures with assigned readings and laboratory study. Prerequisite, one quarter of general geology or physiography. Two credits; spring. Landes

111. *Climatology*.—The broader aspects of climate controls and characteristics of different climates and climatic provinces, with special references to United States and the Pacific Coast. Prerequisite, Geol. 10 or 11. Three credits; spring. Saunders

112. *Physiography of the United States*.—The physiographic regions of the United States and their effects on development and history of the country. Lectures and map study. Prerequisite, Geol. 10 or 12, or 1, 3, or 5. Lab. fee, \$1. Three credits; autumn. Saunders

113. *Physiography of Europe*.—The physiographic regions of Europe and effects of topography and climate on development and relations of different countries. Lectures and map study. Prerequisite, Geol. 10 or 12 or 1, 3 or 5. Lab. fee, \$1. Three credits; winter. Saunders

114. *Oceanography*.—Study of the ocean, oceanic circulation and temperatures in their geographic relations and influence. Prerequisite, Geol. 11 or equivalent work. Two credits; spring. Saunders

116. *Economic Geography of Washington*.—The economic and industrial development of the state, based on the geological, physiographic and climatic conditions. Three credits; autumn. Landes

117. *Geography of Asia*.—A study of the continent by natural regions based on topography and climate. Prerequisite desirable, Geol. 10 or 12. Three credits; spring. Saunders

118. *Geography of South America*.—Physiographic features, climate and resources of the continent and their effects on development and relations of different countries. Prerequisite desirable, Geol. 10 or 12. Three credits; winter. Saunders

120. *Petrology*.—A study of rocks, their components, occurrence and structural relations. Occasional field trips. Lab. fee, \$2.50. Prerequisite, Geol. 21 and either 1, 5, or 12. Three credits; spring. Goodspeed

121. *Advanced Mineralogy*.—A study of opaque, metalliferous minerals with the use of the reflecting microscope, or "mineragraphy"; the relation of the latter to geologic, mining and metallurgical problems. Prerequisite, Geol. 21. Three credits; autumn. Goodspeed

122. *Field Methods*.—Principles and methods of geologic surveying and mapping. Detailed field work in small areas, with field trips. Prerequisite, Geol. 1 and 2, or 5 with 21 and 120. Two credits; spring. Goodspeed

123. *Optical Mineralogy*.—The use of the polarizing microscope in the examination of minerals and rocks in thin sections. Prerequisite, Geol. 1 or 5, and 21. Lab. fee, \$2.50. Three credits; autumn. Goodspeed

124. *Petrography*.—The principles of petrography and petrographic methods in the systematic study of igneous, sedimentary and metamorphic rocks. Prerequisite, Geol. 123. Lab. fee, \$2.50. Four credits; winter. Goodspeed

125. *Advanced Petrography*.—A continuation of the work in petrography for majors in mining and geology. Prerequisite, Geol. 124. Two credits with additional credits optional; spring. Goodspeed (4)

126. *Economic Geology*.—Economic deposits of non-metallic minerals, their production and use. Lectures and discussions of papers. Prerequisite, Geol. 1 or 5, and 21. Three credits; autumn. Landes

127. *Economic Geology*.—Economic deposits of metallic minerals, their production and use. Lectures and discussions of papers. Prerequisite, Geol. 1 or 5, and 21, 124. Five credits; winter. Landes

128. *Economic Geology*.—An intensive study of certain economic minerals or of particular areas of great importance. Prerequisite, Geol. 126 or 127. Two or more credits; spring. Landes

131. *Invertebrate Paleontology*.—A detailed and systematic biologic study of fossil and living representatives of the Mollusca. Prerequisite, Geol. 31. Lab. fee, \$2.50. Five credits; winter. Hanna

133. *Stratigraphic Paleontology*.—A study of the fundamental principles of stratigraphy and the characteristic fossils by means of which the geologic formations of the continent may be determined. Prerequisites, Geol. 1 or 2, 12 or 31. Lab. fee, \$2.50. Five credits; spring. Hanna

GRADUATE COURSES

200.—Field studies or advanced work in general geology. Credits and hours to be arranged.

210.—Advanced or research work in geography, climatology or physiology. Credits and hours to be arranged. Each quarter.

220. Advanced or research work in mineralogy, petrography and metamorphism. Credits and hours to be arranged. Each quarter.

225.—Advanced or research work in economic geology. Credits and hours to be arranged. Each quarter.

230.—Advanced or research work in paleontology and stratigraphy. Credits and hours to be arranged. Each quarter.

SPECIAL SHORT COURSES

S.C. 1. *Geology*.—Two lectures a week. Laboratory fee, \$1. Winter Landes

S. C. 2. *Mineralogy*.—A laboratory course in physical determination of minerals and the use of blowpipe methods. Three laboratory periods per week. Lab. fee, \$2.50. Winter. Landes

For the teachers' course, (Course in Geography) see department of education, Educ. 160-F.

GERMANIC LANGUAGES AND LITERATURE

Denny Hall

ASSISTANT PROFESSOR ECKELMAN; ASSOCIATE KRAFFT

Requirements for a departmental major: at least 35 hours in the department chosen from courses other than German 1, 2, 3. For the departmental or academic major, who wishes a recommendation to teach: the same, including Ger. 110, and Educ. 160G and at least 9 additional credits in literature.

Credit is allowed for any quarter in any course except 1-2

All courses are conducted in German unless otherwise specified.

1-2. *First Year*.—Stage pronunciation, grammar, reading of easy prose and verse, conversation. Five credits a quarter; autumn and winter, winter and spring, spring and summer. Eckelman and Krafft

3. *First Year Reading*.—Reading of modern prose, conversation, composition, continuation of grammar. Prerequisite, Ger. 1-2 or one year in high school. Five credits a quarter; autumn, winter, spring. Eckelman, Krafft

5. *Second Year Reading*.—Pronunciation, vocabulary building, reading of modern prose, simple conversation. Prerequisite, Ger. 3 or two years high school. Three credits; autumn, winter. Krafft

6. *Second Year Rapid Reading*.—Modern prose, vocabulary building, simple conversation. Prerequisite, Ger. 5, 10 or 11, or 60, or two and one-half years high school. Three credits; spring. Krafft

10, 11. *Second Year Supplementary Reading*.—Modern prose, grammar review with emphasis on syntax, simple conversation. Prerequisite as for Ger. 5. Two credits; autumn, winter. Krafft, Eckelman

60. *Lower Division Scientific German*.—Introduction to chemical German. Class work. Suitable outside reading. Vocabulary building. Prerequisite, Ger. 5, 10, or 11; combinations with consent of instructor. Two or three credits; autumn, winter. Krafft

100. *Schiller*. Life and dramatic works. *Jungfrau von Orleans*. *Don Carlos* or *Wallenstein*. Prerequisite, Ger. 5 or 6. Three credits; autumn. Krafft

103, 104. *Recent Writers*.—The best prose and dramatic literature adapted to rapid reading and representative of German middle class and industrial life. Written and oral reports. Prerequisite, Ger. 5 or 6. Three credits; winter, spring. Krafft

106, 107, 108. *German Literature in Translation*.—Goethe, the lyric poet. The novel and the drama of the nineteenth century. Reading and discussion of the most significant works. Written reports. No knowledge of German required. Two credits; autumn, winter, spring. Eckelman

110. *Advanced Prose Composition and Conversation*.—Written exercises, letter writing, themes. Extemporaneous reproduction. Recitation or series, narrative and dramatic selections. Grammar and syntax. Prerequisite, Ger. 5 and 10 or 11. Two credits; winter. Eckelman

112, 113, 114. *Upper Division Scientific German*.—Scientific essays, monographs and technical periodicals. Each student does private reading in his own field under the guidance of the instructor and major professor. Conference work. Prerequisite courses 5 and 10, or 5 and 60, or 6, or three years in high school. Two or three credits a quarter; autumn, winter, spring. Eckelman

*116-117-118. *German Prose Reading*.

*120. *Phonetics*.

*130-131-132. *German Institutions*.

*133-134-135. *Modern Novels*.

**136-137-138. Modern Drama.*

142. *Lyrics and Ballads.*—The Romanticists, Uhland, Heine, Moerike, Storm and others. Prerequisite, course 100 or 103 or 104. Three credits, graduate students may exceed this credit; autumn. Eckelman

**151. Lessing.*

152, 153. *Goethe.*—Growth and development of the lyric poet. Outside reading and reports. Faust, Part I. Genesis, plan and purpose of the drama. Assigned reading and reports. For advanced students. Three credits, graduate students may exceed this credit; winter, spring. Eckelman

180, 181. *Nineteenth Century Literature.*—Study of the drama and novel to 1880. Kleist, Grillparzer, Hebbel, Ludwig, Raabe, Keller, Storm, C. F. Meyer. For advanced students. Three credits, graduate students may exceed this credit; autumn, spring. Eckelman

200-201-202. Goethe's Lyrics and Letters.*203-204-205. Storm and Stress Period.***206-207-208. Romantic School.***220-221-222. Inter-relations of German and English Literature.***250-251-252. History of the German Language.*

253. *Middle High German.*—Grammar and selections from authors for rapid reading in the original. Two to five credits; winter. Eckelman

256-257-258. Gothic.*259. Old Saxon.*

NOTE—For courses in comparative philology, see the department of Scandinavian Languages and Literature.

For the teachers' course in German, see department of education, Educ. 160-G.

HISTORY

Denny Hall and Philosophy Hall

PROFESSORS: MEANY, RICHARDSON; ASSOCIATE PROFESSOR McMAHON; ASSISTANT PROFESSORS LUCAS, LARSEN; INSTRUCTORS, EDDY, FARRAR; PROFESSOR GOWEN OF THE DEPARTMENT OF ORIENTAL LANGUAGES AND LITERATURE.

REQUIREMENTS OF THE DEPARTMENT

The University requirements in history may be satisfied by one of the following courses:

Medieval and Modern European History (1-2). It is desirable that this course be selected in fulfillment of the history requirements and that it be taken in the freshmen year. This course is repeated beginning with each quarter.

History of the United States (57-58). Primarily for sophomores.

English Political and Social History (5-6). Open without prerequisites to freshmen, sophomores and upperclassmen.

Ancient History (71-72-73). Open without prerequisites to sophomores and upperclassmen.

For a major at least eighteen credits shall be obtained in the most advanced undergraduate courses. Course 1-2 is required of all history majors.

*Not offered in 1922-1923.

It is recommended that all history majors shall take, in excess of departmental requirements, additional work in history, political and social science, philosophy, modern languages, and English literature. Medieval Latin is desirable for those who intend to study history for advanced professional purposes.

Prospective teachers of history as a major subject in high schools who desire the recommendation of the department of history must become acquainted with the elementary facts requisite for the teaching of all courses in history and in civil government taught in the high schools of the state, and have specialized knowledge in their chosen fields. Courses in history, government and economics should be elected with this aim in view.

The work in undergraduate courses consists of lectures, papers, assigned and collateral readings, with quiz sections organized for the larger classes. Graduate courses are devoted to research work and reports thereon.

1-2. *Medieval and Modern European History*.—A general survey from the Roman world empire of Augustus to our own times. Five credits a quarter; autumn, winter.

Lucas, Larsen, Eddy

The above course is repeated beginning with the winter quarter.

5-6. *English Political and Social History*.—A survey of the political, social, economic and intellectual development of the English people from the Saxon conquest to the present time. Five credits a quarter. (By performance of special work under direction of the instructor upper division students may receive upper division credit.) Autumn, winter.

Richardson

8. *Westward Movement in the U.S. to 1912*.—A study of the advance of the frontier and its effect on American ideals from the colonial period to the war of 1812. Two credits; autumn.

9. *Westward Movement in the U.S. 1812-1860*.—A study of the frontier from the war of 1812 to the civil war. Two credits; winter.

10. *The Agrarian Crusade in the U.S. 1860-1920*.—A study of the agrarian movements for control, their causes and results. Two credits; spring.

21-22. *History of China*.—From the earliest time to the present. Three credits a quarter; autumn, winter.

Hall-Gowen

23. *History of Japan*.—Three credits a quarter; spring.

Hall-Gowen

57-58. *History of the United States*.—A general survey with emphasis upon political and economic history. Not open to freshmen. Five credits a quarter; autumn, winter.

McMahon

60, 61, 62. *Makers of the Nations*.—American history through the biographies of prominent characters. Not open to freshmen. Two credits a quarter; autumn, winter, spring.

Meany

71-72-73. *Ancient History*.—A survey of the history of the ancient world to the times of Augustus. By performance of special work under the direction of the instructor upper division students may receive upper division credit. Not open to freshmen. Three credits a quarter; autumn, winter, spring.

Larsen

81-82-83. *England Since the Accession of George I*.—Deals with the construction of the British commonwealth of nations and with Imperial problems. It emphasizes also internal economic and institutional developments, especially

not
given

those related to the growth of democracy. Prerequisite, Hist. 1-2 or 5-6. By performance of special work under the direction of the instructor upper division students may receive upper division credits. Not open to freshmen. Two credits a quarter; autumn, winter, spring. Eddy

85-86-87. *History of the Middle Ages. Advanced.*—Course emphasizes the economic, institutional and cultural phases of the period. (By performance of special work under direction of the instructor upper division students may receive upper division credit). Prerequisite, Hist 1-2. Three credits a quarter; autumn, winter, spring. Lucas

90. *History of Alaska: Russian Expansion, 1581-1867.*—Two credits; autumn. Farrar

91. *History of Alaska: First American Period, 1867-1896.*—Two credits; winter. *not given* Farrar

92. *History of Alaska: Second American Period, 1896-1912.*—Two credits; spring. Farrar

102. *The Greek World: From Alexander to its Conquest by the Romans.*—Those institutions that have influenced the Roman empire and thus western Europe receive special attention. Three credits; autumn. Larsen

103-104. *The Roman Empire from Augustus to Justinian.*—Three credits a quarter; winter, spring. Larsen

105-106-107. *English Constitutional History.*—The development of the legal and governmental institutions of the English people to the present time. Valuable for students of political science and law as well as history. Prerequisite, Hist. 5-6, except for upper division students who are majoring in economics, sociology and political science, or who are taking 5-6. Open also to pre-law sophomores who have taken 5-6 in freshman year. Pre-law sophomores who elect this course and have not taken 5-6 are *required* to take course 108-109-110. Three credits a quarter; autumn, winter, spring. Richardson

108-109-110. *English Political History, Pre-law.*—Open only to those pre-law sophomores and majors in political science who are taking course 105-106-107. All pre-law sophomores who are taking course 105-106-107 and who have not taken course 5-6 are *required* to take this course. Two credits a quarter; autumn, winter, spring. Richardson

114-115-116. *Renaissance and Reformation.*—Prerequisite, Hist. 1-2. Two credits a quarter; autumn, winter, spring. Lucas

*117-118-119. *France from the Reformation to the French Revolution.*

*121-122-123. *Prussia and Northern Europe.*

125. *Turkey and the Near East, 1453-1921.*—Deals with the Near Eastern question: the rise, expansion and decline of the Ottoman Empire and the awakening and modern development of the Balkan nations. Prerequisite, Hist. 1-2, or 131. Five credits; spring. Eddy

129. *The French Revolution and Napoleonic Era.*—Prerequisite, Hist. 1-2. Five credits; autumn. Eddy

*Not offered in 1922-1923.

130. *Europe, 1814-1870.*—European development from the Congress of Vienna to the foundation of the German Empire at the close of the Franco-German war. Prerequisite, Hist. 1-2. Five credits; winter. Eddy

131. *Europe since 1870: The War and Its Background.* The historical background, fundamental causes and progressive development of events and issues in the world war. Prerequisite, Hist. 1-2, or upper division standing. Not open to freshmen. Five credits; spring. Richardson

*139. *The Southern Colonies.*

*140. *The New England Colonies.*

*141. *American Revolution.*

143. *History of the United States, 1789-1815.*—Open only to juniors, seniors and graduates. Three credits; autumn. McMahon

144. *History of the United States, 1815-1846.*—Open only to juniors, seniors and graduates. Three credits; winter. McMahon

145. *History of the United States, 1846-1860.*—Open only to juniors, seniors, graduates. Three credits; spring. McMahon

147. *History of the Civil War Period.*—Open only to juniors, seniors and graduates. Three credits; autumn. McMahon

148. *History of the Reconstruction Period.*—Open only to juniors, seniors and graduates. Three credits a quarter; winter. McMahon

149. *History of National Development.*—The development of the American nation from the close of the reconstruction period to the present time. Open to juniors, seniors, graduates and to such sophomores as have completed Hist. 57-58. Five credits a quarter; spring. McMahon

153. *The Pacific Rim.*—History of the countries bordering upon the Pacific Ocean with especial reference to recent changes. Open to juniors, seniors and graduates. Three credits a quarter; autumn. Meany

154. *Spain in America.*—The rise and fall of Spanish power in America, and an outline of the history of the Spanish-American republics. Three credits a quarter; winter. Open to juniors, seniors and graduates. Meany

155. *History of Canada.*—Canadian development to the present time. Open to juniors, seniors and graduates. Three credits a quarter; spring. Meany

157-158-159. *History of American Diplomacy.*—American relations with foreign powers from colonial times to the present. Open to juniors, seniors and graduates. Two credits a quarter; autumn, winter, spring. Meany

163-164-165. *Northwestern History.*—From the earliest voyages to the Pacific Northwest to the organization of the present form of government. Open to juniors, seniors and graduates. Two credits a quarter; autumn, winter, spring. Meany

GRADUATE COURSES

201-202-203. *Methods of Historical Research and Criticism.*—Open only to graduates and a few qualified seniors who obtain the consent of the instructor. One credit a quarter; autumn, winter, spring. Richardson

*204-205-206. *Historiography.*

210-211-212. *Greek Federal Leagues*.—Two credits a quarter; autumn, winter, spring. Larsen

*215-216-217. *Seminar in English History*. Richardson

*218-219-220.—*Seminar in Historical Background of World War*.

221-222-223. *Seminar in American History*.—Two credits a quarter; autumn, winter and spring. McMahon

227-228-229. *Seminar in State History*.—Two credits a quarter; autumn, winter, and spring. 4 cr. for L. Crane—fall Meany

NOTE:—For the teachers' course, see department of education, Educ. 160-M.

HOME ECONOMICS

Home Economics Hall

PROFESSOR RAITT; ASSISTANT PROFESSORS DENNY, PATTY, ALBERT, KOHNEN;
INSTRUCTORS, DRESSLAR, LUSBY.

(For curricula in Home Economics see page 84)

1. *Cookery*.—General elective for non-home economics majors. Study of marketing, cookery, meal planning and service. Laboratory work to accompany Phys. Educ. 54, 55, and 56. Three 2-hour periods, recitation and laboratory work. Lab. fee, \$6. Three credits; winter. Dresslar

*2. *Elements of Nutrition*.

*3. *Elements of Home Management*.

4. *Foods: Principles and Practice of Food Preparation*.—Credit for cookery in high school exempts students from this course. Three 2-hour periods, recitation and laboratory work. Lab. fee, \$6. Three credits; autumn, spring. Dresslar

5-6. *Foods: Selection and Preparation*.—Prerequisite, H.E. 4 or one year high school cookery or equivalent, Chem. 5-6, Physiology 8. Two lectures and three 2-hour periods, recitation and laboratory work. Lab. fee, \$6. Five credits a quarter; autumn, winter, spring. Dresslar

7. *Home Economics Survey*.—Analysis of the subject. Relation to supporting courses. Budgets and accounts. Required of all freshmen majoring in home economics. Two recitations. Two credits; autumn; spring. Raitt

8. *Clothing*.—Elements of hand and machine sewing. Materials, design and construction. Comparison with factory made garments. Problems of garment making. Credit for high school clothing exempts students from this course. Three 2-hour periods, recitation and laboratory work. Lab. fee, \$2. Three credits, spring. Denny

25. *Textiles and Clothing*.—Identification and testing of fabrics. Economics of the textile industry. Comparative values in all types of clothing. Hygiene of clothing. Care and renovation. Clothing budgets. Two lectures and three 2-hour periods, recitation and laboratory work. Lab. fee, \$4. Five credits; autumn, winter, spring. Denny

27. *Non-Textiles*.—Merchandise from non-textile sources; paper, leather, rubber, fur, metals, etc. Raw materials, sources of supply, manufacture, methods of judging. Classification of retail stores' departmental stock. Three 2-hour periods, recitation and laboratory work. Lab. fee, \$4. Three credits; winter. Denny

32. *Clothing*.—General elective for students who take no other work in this subject. Designing and making of simple dresses, study of accessories, clothing budgets. Three 2-hour periods, recitation and laboratory work. Lab. fee, \$4. Three credits; autumn. Patty

43. *Home Sanitation*.—Selection, sanitation and care of the equipment and material of the household. Three 2-hour periods, recitation and laboratory work. Lab. fee, \$2. Three credits; autumn. Dresslar

101-102. *Needlework*.—History of lace and needlecraft. Application of principles of design to modern needlework. Prerequisite, H.E. 8 and P.S. and D. 3. Two 2-hour periods, recitation and laboratory work. Lab. fee, \$2. Two credits a quarter; autumn, winter. Denny

105-106. *Nutrition: Elementary Dietetics*.—Function, nutritive value of foods. Elementary course for nurses, social service students and those wishing to obtain a practical knowledge of nutrition as a part of a liberal education, but who will not teach this subject. Prerequisite, H.E. 4, Chem. 5-6, Physiology 8. Three lectures one 2-hour period, recitation and laboratory work. Lab. fee, \$6. Four credits; winter, spring. Koehne

107-108. *Nutrition: Dietetics—Principles of Human Nutrition*.—For those expecting to teach home economics or to enter professions related to food and nutrition. Prerequisite H.E. 5-6, Chem. 135-136. Three lectures. Two 2-hour periods, recitation and laboratory work. Lab. fee, \$6. Five credits; winter, spring. Koehne

109. *Elements of Home Economics*.—Service course for students training to do social service work. A consideration of the budget, elements of nutrition and home sanitation. Five recitations. Five credits; ~~winter~~. Raitt

110. *Food Preparation*.—Advanced work in cookery—finer processes in technique, meal planning and service, catering. Prerequisites, H.E. 5-6. Two 3-hour periods, recitation and laboratory work. Lab. fee, \$6. Three credits; autumn. Dresslar, Lusby

112-113. *Clothing—Costume Design and Construction*.—Principles of design applied to dress and dress accessories. Practice in selection and construction. Prerequisite, H.E. 8 and P.S. and D. 3. Five 2-hour periods, recitation and laboratory work. Lab. fee, \$4. Five credits, autumn, winter, spring. Patty

121. *Large Quantity Cookery*.—Preparation of food in large quantities for cafeterias, tea rooms, dormitories, hospitals, and camps. Prerequisite, H.E. 5-6. Laboratory practice. One lecture, three 2-hour periods, recitation and laboratory work. Lab. fee, \$4. Four credits; winter. Lusby

122. *Buying and Dietaries*.—Marketing, buying, institution equipment and supplies. Planning menus for dormitories, hospitals, cafeterias and tea-rooms. Prerequisites, H.E. 5-6 and 107-108. Three recitations. Three credits; spring. Lusby

123. *Institutional Management*.—A study of the problems of various types of institutions, relating to their organization and operation, relation to the state and community, employment of help. Three lectures. Prerequisites. H.E. 5-6, 107-108, and 122. Three credits; spring. Raitt

124-125. *Practice Work*.—Eight hours a week in different departments of University Commons and University dormitories followed by eight hours a week among following: tea rooms, cafeterias, school lunch rooms, clubs and hospitals—under supervision of the instructor in charge. One hour con-

ference a week. Two 4-hour periods or one full day should be arranged in the schedule. Three credits a quarter; autumn or spring. Two quarters required.

Lusby

130-131. *Clothing: Costume Design and Construction*.—Designing and draping on the form, practice in dress construction, and a study of trade conditions. Prerequisites, H.E. 112-113, P.S. and D. 3, P.S. and D. 169. Three 2-hour periods, recitation and laboratory work. Three credits; winter, spring.

Patty

133. *Clothing: Costume Design*.—Development of fashion from ancient times to the present with emphasis upon the best art periods. Adaptation to the present mode. Prerequisites, H.E. 112-113, P.S. and D. 3 and 169. Five 2-hour periods—recitation and laboratory work. Five credits; spring. Lab. fee, \$4.

Patty

135. *Millinery*.—Design, selection, practice in construction. Study of trade methods and materials. Prerequisites, H.E. 8 or equivalent P.S. and D. 3. Three 2-hour periods, recitation and laboratory work. Lab. fee, \$4. Three credits; autumn.

Patty

143. *Home Furnishing*.—Application of structural art principles to choice and arrangement of household furnishings. Comparative costs. Prerequisites, P.S. and D. 3. Two lectures and one 2-hour period, laboratory work, and excursions. Lab. fee, \$4. Three credits; autumn, spring.

Denny

144-145. *Household Management*.—Organization of the household. Application of scientific principles. Study of scientific management. Household budgets and accounts. Prerequisites, H.E. 5-6, 105-106, or 107-108, Arch, 101-102, Phys. 89-90, Bact. 101, Econ. 1, Soc. 1. Two recitations and conferences. Three credits; winter, spring.

Raitt

148. *Practice Cottage*.—Seniors are required to live in Practice Cottage two or three weeks. Two credits.

Amery

183. *Foods: Comparative Studies of Food Materials and Cooking Processes*.—Prerequisites, H.E. 5-6. Three 2-hour periods recitation and laboratory work. Lab. fee, \$4. Three credits; spring.

Dresslar

188. *Advanced Textiles*.—Intensive study of fabric values. Historic textiles including tapestries. Dyeing of yarns and fabrics. Hand weaving. Prerequisites, H.E. 25, Econ. 1. Two 2-hour periods, recitation and laboratory work. Lab. fee, \$4. Two credits; winter.

Denny

189. *Special Food Problems*.—Investigation of food products, nutrition, individual assignments. Prerequisite, H.E. 106 or 107. Recitation and special investigation. Lab. fee, \$2. Three credits; autumn.

Raitt

190-191. *Advanced Nutrition*.—A study of one or more of the following phases:

Malnutrition of Children.—Work centers around the University Cooperative Child Nutrition Service. Consultation with physicians and instructor and follow-up case work in homes of the children. Visits to institutions for child care.

An Intensive Study of Dietary Deficiency Diseases.—Laboratory work on experimental animals.

Diet in Disease.—Lectures. Visits to hospitals. Open to graduates or advanced under-graduate students. Two to five recitations, one to three lab. periods. Three hours of field work may be required. Lab. fee, \$4

and \$8 depending upon number of credits carried. Three to eight credits; winter and spring.

GRADUATE COURSES

*200. *Special Food Problems.*

202. *Seminar.*—A study of the present status of home economics education with special attention to the work in the elementary and high schools of the State of Washington. Prerequisites, 30 credits in home economics, including Educ. 160-J, 160-J. Four to six credits; spring. Raitt

*203. *Research*

205-206. *Research in Nutrition.*—Animal experimentation on some special problem. Open to graduate students. Prerequisites, H.E. 107-108. It is desirable that this course be accompanied by H.E. 190, 191. Lab. fee, \$4. Two to three credits a quarter; winter, spring. Koehne

207, ^{208, 209} *Research in Textiles.*—Prerequisites, H.E. 25, Econ. 1. Lab. fee, \$2. Three to nine credits. *credits arranged* Denny

NOTE:—For teachers' course, see the department of education. Educ. 160-J—160-J.

For the course Food and Nutrition required for physical education credit, see department of physical education, Phys. Educ. 64-65-66.

210, 211, 212 - *Research in Costume Design* -

JOURNALISM

Commerce Hall

PROFESSOR SPENCER, ASSISTANT PROFESSORS KENNEDY, JONES;
INSTRUCTOR, HICKLIN; STUDENT ASSISTANT, ASTEL

51. *News Writing.*—Practice in news writing; study of news sources. Required in the sophomore year of pre-journalism majors. Laboratory fee, \$2. Five credits a quarter; autumn, winter. Hicklin.

61. *The Country Newspaper.*—Editorial problems peculiar to the country weekly. Two lecture hours and one laboratory period a week. Required in the sophomore year of pre-journalism majors. Laboratory fee, \$2 a quarter. Three credits a quarter; spring. Jones.

75. *Elements of Publishing.*—Head styles; proof-reading; binding, engraving, press work; problems of production. Required in the sophomore year of pre-journalism majors. Laboratory fee, \$2 a quarter. Three credits a quarter; autumn. Kennedy.

90, 91, 92. *Current Events.*—Current state, national, and world movements. One quarter required of majors in journalism. Prerequisite, Journalism 51. Laboratory fee, \$1. One credit a quarter; autumn, winter, spring. Jones.

101. *Reporting.*—Study of all types of stories covered by a reporter. Required of majors in journalism. Prerequisite, Journalism 51. Laboratory fee, \$2. Five credits a quarter; autumn, spring. Hicklin.

104. *Newspaper Administration.*—Newspaper organization and management. Required of majors in journalism. Prerequisite, Journalism 51. Laboratory fee, \$1. Two credits a quarter; autumn. Spencer.

109. *Literary and Dramatic Reviewing.*—Routine work of the literary and dramatic editors. Prerequisite, Journalism 51. Two credits a quarter; spring. Jones.

120. *Copy Reading*.—Required of majors in journalism. Prerequisite, Journalism 101. Laboratory fee, \$2. Five credits a quarter; winter, spring. *128 - Foreign Correspondence - 2 cr - Hall*

130. *Fundamentals of Advertising*.—Laboratory fee, \$2. Five credits a quarter; autumn. Jones.

131. *Display Advertising*.—Prerequisite, Journalism 130. Laboratory fee, \$2. Five credits a quarter; winter. Jones.

133. *Advertising Typography*.—Type families; application of type; advertising type units; type problems. Laboratory fee, \$2 a quarter. Prerequisite, Journalism 75. Five credits a quarter; spring. Kennedy.

136. *Comparative Journalism*.—Prerequisite, Journalism 101 and 120. Laboratory fee, \$2. Three credits a quarter; spring. Jones.

138. *History of American Journalism*.—Required of majors in journalism. Prerequisite, Journalism 51. Five credits a quarter; winter. Spencer.

140. *The Business Office*.—Simplified accounting for newspaper plants; business office management. Required of majors in journalism. Prerequisite, Journalism 75. Laboratory fee, \$2 a quarter. Five credits a quarter; winter. Kennedy.

150. *Editorial Writing*.—Required of majors in journalism. Prerequisite, Journalism 101 and 120. Five credits a quarter; spring. Spencer

160. *Trade Journalism*.—Prerequisite, Journalism 51. Laboratory fee, \$2. Five credits a quarter; winter. Jones

170. *Magazine and Feature Writing*.—Practice in writing special newspaper and magazine articles; study of current magazines and newspaper supplements. Articles are graded according to their probable marketability. Laboratory fee, \$2. Five credits a quarter; autumn. Jones

173. *The Short Story*.—Critical appreciation of the short story. Laboratory fee, \$2. Three credits a quarter; autumn. Spencer

174-175. *Short Story Writing*.—Prerequisite, Journalism 173. Laboratory fee, \$2 a quarter. Three credits a quarter; winter, spring. Spencer

188. *News Writing for Teachers*.—Methods and problems of teaching news writing in high schools. Two credits a quarter; spring. Jones

250. *Research in Journalism*.—Admission only by consent of the instructor. Three to five credits a quarter; autumn, winter, spring. Spencer

LAW

Commerce Hall

PROFESSOR CONDON, LANTZ, GOODNER, BISSETT, AYER; LECTURER, O'BRYAN

FIRST YEAR

All first year courses required

100. *Agency*.—Wambaugh's Cases. Five credits; spring. Ayer.

103-104. *Contracts*.—Williston's Cases. Five credits per quarter; autumn and winter. Lantz

106-107. *Criminal Law and Procedure*.—Derby's Cases supplemented

by Washington Criminal Code and Cases. Three credits per quarter; autumn and winter. O'Bryan

108-109. *Pleading and Procedure*.—Sunderland's Cases on Common Law Pleading, and Sunderland's Cases on Code Pleading, and Washington Code and Cases. Five credits per quarter; winter and spring. Goodner

115. *Property I.—Personal*.—Bigelow's Cases, Vol. I. Three credits; autumn. Bissett

116. *Property II.—Real*.—Bigelow's Cases, Vol. II. Five credits; spring, Bissett

117-118. *Torts*.—Bohlen's Cases. Four and two credits respectively; autumn and winter quarters. Ayer

SECOND YEAR

125-126. *Equity*.—Ames' Cases in Equity Jurisdiction, Vol. I and II. Three credits per quarter; autumn and winter. O'Bryan for winter, Ayer

128. *Damages*.—Beale's Cases on Damages, supplemented by Washington Cases. Three credits; spring. O'Bryan

129-130. *Evidence*.—Wigmore's Cases. Five and four credits, respectively; autumn and winter. Condon

133. *Insurance*.—Vance's Cases. Three credits; spring. Lantz

137. *Negotiable Instruments*.—Huffcut's Cases. Three credits; winter. Bissett

138. *Quasi-Contracts*.—Woodruff's Cases. Three credits; spring. Lantz

139-140. *Property II. (continued)*.—Aigler's Cases, Vol. III, and Kale's Cases, Vol. IV; autumn and winter quarters, four and two credits, respectively. Bissett

142-143. *Public Utilities*.—Beale and Wyman's Cases. Three credits per quarter; winter and spring. Lantz

146-147. *Sales*.—Woodward's Cases. Three credits per quarter; winter and spring. Schuyler for winter, Ayer

161. *Procedure IV*.—This course relates to procedure in civil actions in the Superior Court of Washington. Five hours. Three credits; autumn. Goodner

179. *Partnership*.—Gilmore's Cases. Three credits; spring. O'Bryan

THIRD YEAR

153. *Property III*.—Aigler's Cases, Vol. III, and Kale's Cases, Vol. IV. Three credits; autumn. Bissett

159. *Wills*.—Costigan's Cases. Three credits; autumn. Goodner

163. *Procedure VI*.—A course in Probate Proceedings, covering administration of estates, probate of wills, appointment of guardians, etc. Five hours. Four credits; winter. Goodner

165. *Admiralty*.—Ames' Cases. Three credits; autumn. Lantz

166. *Office Practice*.—Conveyancing and examination of abstracts, care of a law office generally, drawing wills and contracts, preparation of briefs and office accounts. Five credits; spring. Condon

168. *Conflict of Laws*.—Lorenzen's Cases. Five credits; winter. Lantz

170-171. *Constitutional Law*.—Hall's Cases. Three credits per quarter; autumn, winter. Bissett

187-188. *Private Corporations*.—Canfield and Wormser's Cases. Three credits per quarter; autumn and winter. Goodner

191. *Property: Community*.—Washington Statutes and selected cases on community property. Five credits; spring. Bissett

196. *Trusts*.—Kenneson's Cases. Five credits; spring. Goodner

NOTE—Fifteen hours or credits in each quarter are required, making a minimum total of 185 hours or credits for completion of the law course.

Students are limited to fifteen hours per quarter, except upon special permission of the dean, and payment of an additional fee of \$1 per credit hour in excess of fifteen.

192 - for L.M. Jordan
200 - Evidence - 3 cr. - Condon, fall
Advanced LIBRARY SCIENCE

Library

PROFESSOR HENRY; ASSOCIATE PROFESSOR SMITH; INSTRUCTORS, HOWE, SPENCER, ALFONSO

1. *Use of the Library*.—An elective course open to any student in the University, but especially designed as an introduction for those who expect to enter the Library School. Lectures on the arrangement of the library, on classification and cataloging of the books, on some of the general reference material, and on library organization and usage. One hour a week; repeated each quarter. Staff

Registration in any quarter limited to thirty, preference given to those expecting to enter the Library School.

The following courses are open only to students registered in the Library School.

174. *Order Routine, Trade Bibliography, and Circulation*.—Ordering, receiving, checking, accessioning and mechanical preparation of books; elements of trade bibliography. It also covers lending systems. Two credits; autumn. Howe

175. *Classification and Subject Headings*.—Decimal classification studied in detail, followed by survey of the Expansive and the Library of Congress classifications. Use of subject headings considered early in the quarter and much of the prepared work consists of the classification and assignment of subject headings to specified books. Three credits; autumn. Spencer

176. *Cataloging*.—Covers fundamentals of dictionary cataloging, assigning of book numbers, shelf-listing, and alphabetizing. Three credits; autumn. Alfonso

184. *Cataloging*.—A continuation of course 176, dealing with the more difficult phases of the subject, including authorities. Three credits, winter. Spencer

177, 185, 193. *Reference*.—These courses give a working knowledge of important types of reference books and develop the power of research. Lectures cover books and methods. Practical problems assigned and worked

out. Courses include also the work with government documents. Two credits a quarter; autumn, winter, spring. Smith

194. *Subject Bibliography*.—Practical work in the preparation of bibliographic lists; lectures on sources and methods of work. Problems cover arrangement and form of entry. One piece of independent bibliographic work is required of each student. Two credits; spring. Smith

186, 195. *Practice*.—Each student is expected to do 300 hours of practice or laboratory work under expert personal supervision as a test of practical ability and as an opportunity to exhibit personality in service. The practice work is given in both the University Library and the Seattle Public Library and consists of 15 hours per week for twenty weeks. Five credits a quarter; winter, spring.

178. *History of Books and Libraries*.—Lectures, readings and reports. Two credits; autumn. Henry

187. *Library Organization and Extension*.—Subjects treated are legalization and organization of a general library system for city, county or state, as the unit of organization; also the organization of various types of libraries with varying degrees of equipment. Two credits; winter. Henry

179, 188, 196. *Book Selection*.—To cultivate taste and good judgment in evaluation of books through a study of the principles of book selection, annotation and book reviewing. Three credits; autumn. Two credits; winter and spring. Howe

197. *Library Administration and Library Literature*.—Lectures, readings and discussions upon library legislation, local taxation, library budget, and all means and instruments for realizing the educational and social functions of the library. Reading and class discussion of literature of libraries and librarianship, including library periodicals and the publications of library organizations, with special emphasis upon the best papers in the A.L.A. Proceedings for recent years. Three credits; spring. Henry

189. *Work with Children and Schools*.—Planned to meet the needs of general library assistants and librarians in charge of small libraries. Deals with principles of book selection with special attention to choice of books for children of various ages. Students read and discuss children's books with these ideals in mind. Two credits; winter. Howe

198. *Special Lectures by Active Librarians*.—Ten lectures are given by as many persons, each upon some vital problem of library service or administration. These persons are selected because of their experience and success in dealing with the problems treated. One credit; spring.

MATHEMATICS

Philosophy Hall

PROFESSORS MORITZ, BELL; ASSOCIATE PROFESSORS CARPENTER, WINGER; ASSISTANT PROFESSORS GAVETT, NEIKIRK; INSTRUCTORS, SMALL, WEST, STAGER;
ASSOCIATES, CHAMLET, TAYLOR, JERBERT

REQUIREMENTS OF THE DEPARTMENT

For a major in mathematics, 36 credits, including courses 5 and 109.
Candidates who are not majors in mathematics but wish to teach mathe-

matics as a minor subject must have earned at least 15 credits in mathematics, including courses 4 and 5, before receiving the recommendation of the department.

Major students in mathematics should, if possible, select their courses in mathematics in the following order: Math. 4, 5, 6, 107, 108, 109. In addition they should elect physics as their freshman science and take solid geometry (Math. 2) in their freshman year.

1. *Advanced Algebra*.—Algebra from quadratics on. Prerequisite, one year of high school algebra. Five credits; autumn, winter, ~~Sp.~~

2. *Solid Geometry*.—Prerequisite, one year of plane geometry. Five credits; winter, spring. ~~Fall~~

4. *Plane Trigonometry*.—For students in the Colleges of Liberal Arts, Science, Education, Fisheries, Law, and Pharmacy. Prerequisites, one year of algebra and one year of plane geometry. Five credits; each quarter.

5. *College Algebra*.—Prerequisite, course 1 or one and one-half years high school algebra. Five credits; winter. Winger.

6. *Analytical Geometry*.—Primarily for students in the College of Science. Prerequisite, Math. 1, 2, and 4. Five credits; spring. Winger.

11-12. *Theory of Investments*.—Primarily for students in commerce. A two quarter course. The first quarter's work deals with the preliminary processes of algebra, together with applications to problems in interest and annuities. The second quarter's work deals with annuities, amortization, capitalization and depreciation, sinking funds, bond values, building and loan associations. This is followed by a brief study of life contingencies, applied to the computation of single and annual premiums on life policies. Prerequisite, one year algebra, one year geometry. Five credits a quarter; autumn, winter, spring.

13. *Elements of Statistical Methods*.—Data obtained by observation, enumeration or estimate, and their application to interpreting social and natural phenomena. Prerequisite, one year algebra, one year plane geometry. Five credits each quarter. Gavett ✓

51. *Higher Algebra*.—Primarily for students in the Colleges of Engineering and Mines. Prerequisite, one and one-half years algebra, one year plane geometry. ~~Five~~ credits each quarter.

52. *Trigonometry*.—Primarily for students in the Colleges of Engineering and Mines. Prerequisite, Math. 51. Four credits; each quarter.

53. *Analytical Geometry*.—Primarily for students in the Colleges of Engineering and Mines. Prerequisite, Math. 52. Four credits; each quarter.

54, 55, 56. *Mathematics for Foresters*.—A study of advanced numerical and graphical methods and solution of plane triangles by trigonometric methods. Prerequisite, one and one-half years algebra, one year plane geometry. Three credits a quarter; autumn, winter, spring. Taylor

57, 58, 59. *Mathematics for Architects*.—Algebra through quadratic equations and plane trigonometry through solutions of triangles. Advanced topics in algebra; the elements of analytical geometry; elementary differential and integral calculus. Prerequisite, one year algebra, one year plane geometry. ~~Three~~ credits a quarter; autumn, winter, spring. Taylor

61, 62, 63. *Calculus*.—Primarily for students in the Colleges of Engineering and Mines. Prerequisites, Math. 2 and 53. Three credits a quarter; autumn, winter, spring.

FOR GRADUATES AND UNDERGRADUATES

101. *Spherical Trigonometry with Applications*.—Prerequisite, Math. 2 and 4. Two credits; autumn. Smail

102, 103. *Solid Analytical Geometry*.—Prerequisite, course 8 or 63. Two-credits a quarter; winter, spring. Smail

107, 108, 109. *Calculus*.—Elements of differential and integral calculus, primarily for students in the College of Science. Prerequisite, Math. 6. Five credits a quarter; autumn, winter, spring. Moritz

114, 115. *Ordinary and Partial Differential Equations*.—With applications to problems in physics, chemistry, astronomy and engineering. Prerequisite, course 108 or 63. Three credits a quarter; autumn, winter. Carpenter

117-118-119. *Projective Geometry*.—An analytic treatment. The relation of projective to metric geometry is emphasized. Prerequisite, Math. 8 or 61. Two credits a quarter; autumn, winter, spring. Winger

151. *Mathematical Theory of Finance*.—This course is especially designed to meet the needs of expert accountants, of majors in business administration, and of majors in mathematics who wish to turn their mathematics to account in business. The course includes a comprehensive study of the theory of interest and discount symmetrically developed; valuation of annuities; determination of rates of income; valuation of redeemable and irredeemable securities; capitalization and depreciation; sinking funds and amortization of debentures and of options; construction and use of bond tables; Makeham's Formula. Prerequisite, a thorough working knowledge of algebra. Three credits; autumn. Moritz

152. *Mortality Tables*.—Various methods of graduation of tables; probabilities of life; expectations of life; force of mortality; probabilities of survivorship; DeMoivre's, Gompertz and Makeham's formulas for the law of mortality. Lubbock's summation formula; the life table and its uses. Prerequisite, a thorough working knowledge of algebra. Three credits; winter. Moritz

153. *Insurance—Premiums and Reserves*.—Life annuities and assurances; single and annual premiums with and without premiums returns; commutation columns; conversion tables; joint life annuities and assurances; relation between annuities and assurances; varying benefits; policy values; surrender values; life interest and reversions. Prerequisite, Math. 151 and 152. Three credits; spring. Moritz

*161, 162, 163. *Analytical Mechanics*.

164, 165, 166. *Introduction to Applied Mathematics*.—For students of science. The theorems of Green, Gauss, Stokes and Kelvin, and their applications to electricity. Maxwell's equations; derivation of the equation of wave motion, and its solutions in special cases, including Hertzian oscillations. Elements of Fourier Series, with selected problems from propagation of heat and electricity. Generalized Coordinator, the Principle of Least Action, and Lagrange's equations with applications to systems of two degrees of freedom. The aim of the course is to give the student sufficient mathematics to enable him to read the easier scientific papers in the current literature. It presupposes a thorough grasp of elementary physics and mathematics through the calculus. Differential equations should be taken before or concurrently. Three credits a quarter; autumn, winter, spring. Neikirk.

*Not offered in 1922-1923.

GRADUATE COURSES

201, 202, 203. *Introduction to Projective Differential Geometry*.—Projective theory of plane and space curves, surface and line congruences, as developed from certain differential equations and their invariants. Prerequisites, Math. 119 and 116. Three credits a quarter; autumn, winter, spring. Carpenter.

*204, 205, 206. *Modern Algebra*. ^{OK} for M.E. Morgan - 3 cr. fall

207-208-209. *Theory of Relativity*.—Autumn, absolute differential calculus; winter, Einstein's Theory of Gravitations; spring, general relativity. Prerequisites, Math. 109, Physics 2. Nine credits for the year. Bell.

*211, 212, 213. *Foundations of Mathematics*.

*214, 215, 216. *Complex Variable*. — small - 2 cr Fall

*217, 218, 219. *Elliptic and Theta Functions*.

*221, 222, 223. *Higher Plane Curves*.

*224, 225, 226. *Real Variables*.

not in T.S. 251, 252, 253. *Mathematical Journal and Research Club*.—Meets on the second Thursday of each month in Philosophy Hall, room 137, at 5 p.m. The club consists of advanced students and teachers in the department of mathematics. The purpose of the club is primarily to discuss the research work carried on by members of the club, and secondarily to review important recent mathematical literature. Prerequisite, open to all graduate students in mathematics. No credit; autumn, winter, spring.

NOTE:—For the teachers' course, see department of education, Educ. 160-M.

MECHANICAL ENGINEERING

Engineering Hall

PROFESSOR EASTWOOD; ASSOCIATE PROFESSORS WILSON, WINSLOW;
INSTRUCTORS, MCINTYRE, McMINN, EDMONDS

70. *Marine Gas Engines*.—Arranged for the short course in fisheries. Two credits; winter. Wilson.

71. *Airplane Gas Engines*.—Arranged for military science department. Two credits; spring. Wilson.

81. *Mechanism*.—Operation of machines involving the transmission of forces and the production of determinate motions. Prerequisite, C.E. 2, Math. 52. Three credits; autumn, winter, spring. Wilson, Winslow, McIntyre, McMinn.

82. *Steam Engineering*.—Various steam apparatus used in modern steam plants; construction, use, and reason for installation. Not open to freshmen. Prerequisite, C.E. 2. Three credits; autumn, winter, or spring. Eastwood, Winslow, McMinn.

83. *Steam Engineering Laboratory*.—Calibrations of thermometer, gages, indicator springs, etc.; tests of the simple steam engine; one complete engine and boiler test with report. Preceded or accompanied by M.E. 82. Lab. fee, \$2. Three credits; autumn, winter, spring. Wilson, Winslow, McIntyre.

*Not offered in 1922-1923.

91, 92, 93. *Machine Design*.—Design of machine details. Preceded or accompanied by M.E. 81. Prerequisite, C.E. 2. Two credits a quarter; autumn, winter or spring. McIntyre, Edmonds, McMinn.

101, 102, 103. *Machine Design*.—Design of hoisting and pumping machinery; special machines. Prerequisite, M.E. 93, C.E. 132. Two credits a quarter (103, three credits); autumn, winter, spring. 103 - given winter Winslow.

123, 124. *Engines and Boilers*.—Generation and use of steam in various types of boilers and engines. Three lectures per week autumn quarter; two lectures and three lab. periods a week, winter quarter. Prerequisite, M.E. 82, 93, C.E. 131. Three credits per quarter; autumn, winter. Winslow.

151, 152, 153. *Experimental Engineering*.—Continuation of M.E. 83, involving more extended and complete investigations. Prerequisite, M.E. 83. Lab. fee, \$2. Three credits a quarter; autumn, winter, spring. Wilson, Winslow.

167. *Engineering Materials*.—Properties of the various materials used in engineering construction, including iron, steel, reinforced concrete, timber, etc. Recitation and laboratory. Prerequisite, C.E. 132. Junior mechanical and electrical engineers. Lab. fee, \$2. Three credits; winter and spring. Winslow, McMinn.

179. *Steam Turbines*.—Theory, construction and design of steam turbines. Prerequisite, M.E. 82. Three credits; spring. Eastwood.

182. *Heating and Ventilation*.—Various systems of heating and ventilating, methods or designs and tests. Prerequisite, M.E. 82. Three credits; winter, spring. Eastwood.

183. *Thermodynamics and Refrigeration*.—Fundamental principles underlying the transformation of heat into work, with special application to engineering. Prerequisite, M.E. 82. Five credits; autumn. Eastwood.

184. *Power Plants*.—Design of steam power plants, involving their location, buildings, prime movers, power transmission, etc. Prerequisite, M.E. 123, 83. Three credits; spring. Eastwood.

✓ **185, **186, **187. *Naval Architecture*.—Theory of naval architecture, as pertains to displacement, stability and strength, and the usual calculations involved in construction. Not open to freshmen. Three credits a quarter; autumn, winter, spring. Eastwood.

✓ **188, **189. *Ship Design*.—Application of the principles of naval architecture to the design of a ship for a definite purpose. Prerequisite, M.E. 186. Two credits a quarter; autumn and winter. Eastwood.

✓ **190. *Marine Engineering*.—Power plant equipment of ships, including boilers, engines, auxiliaries and propellers. Prerequisite, M.E. 82, 185. Three credits; spring. Eastwood.

198. *Gas Engineering*.—Development of gas engineering; stationary, marine, automobile and airplane motors, and gas producer plants. Prerequisite, M.E. 82. Three credits; autumn and winter. Wilson.

199. *Gas Engine Design*.—Calculations and plans for the design of a given type of motor. Prerequisite, M.E. 198. Three credits; spring. Wilson.

given Fall for E. S. Bonesteel
 **Will be offered if a sufficient number of students elect the course.

210. *Thesis*.—An investigation, design or experiment under the direction of the professor in charge. Three credits; senior year.

— or 4 Eastwood, Wilson, Winslow.

211. *Research*.—Time to be arranged. Three credits a quarter.

— or 4 Eastwood, Wilson.

ENGINEERING SHOPS

53, 54, 55. *Metalwork*.—Foundry; forge; machine work. Lab. deposit, \$2. One credit per quarter; autumn, winter, spring.

105, 106, 107. *Metalwork*.—Advanced machine shop practice. Prerequisite, E. 55. Laboratory deposit, \$2. One credit a quarter; autumn, winter, spring.

108. *Metalwork*.—Manual arts for teachers. Prerequisite, E. 107. One credit; autumn, winter, or spring.

MILITARY SCIENCE AND TACTICS

The Armory

COLONEL PHAROE, LIEUT. COLONEL NOTES, LIEUT. COLONEL ESTY, MAJOR MUELENBERG, MAJOR FRAKER, MAJOR DENNIS, MAJOR ROWLAND, MAJOR GREGORY, CAPTAIN UNDERWOOD, CAPTAIN PRIEST, CAPTAIN HALE, LIEUT. NOLAN, LIEUT. HALTER, WARRANT OFFICER WHITE, FIRST SERGEANT THOMAS, QUARTERMASTER SERGEANT WUNDERLICH, SERGEANTS LANG, BOYLE, BAILEY, KENT, BECKETT, PALMS, PRIVATES FIRST CLASS FREEMAN, HONNAS, MAUGHAN.

All male students in the University who are American citizens, and not physically disqualified, are required to take military training throughout the first two years of attendance. The present requirement is five hours per week.

The instruction of these two years, together with that provided for the third and fourth years, constitute the courses prescribed by the War Department for institutional units of the Reserve Officers' Training Corps. Three of these units have been established in this University, Infantry, Coast Artillery and Air Service, each leading to commissions as Reserve Officers in the appropriate corps. The advanced courses, those of the third and fourth years, are open to all students who have completed the first two years—basic course—of instruction and training.

All assignments for instruction and training will be made at the time of registration with the military department.

In addition to the above courses, the University has provided for those students who desire to major in military science a four-year curriculum which will give a good general college education upon which any line of professional or technical study may be based and which will give to the graduate the degree of B.S. in Military Science, and at the same time enable him to obtain a commission as second lieutenant in the Officers Reserve Corps of the United States Army in accordance with the provisions of the National Defense Act.

FIRST YEAR

One and two-thirds credits a quarter, five hours a week.

Basic Courses—All Units

1-2-3. *Infantry Drill. Ceremonies*.—Practical. Th.-11. One hour a week.

4-5-6. *Elementary Infantry and Physical Training*.—Practical. M.W.F. Three hours a week.

7. *Rifle Marksmanship*.—Practical. M,W,F, Three hours a week; spring quarter.

8-9-10. *Special Infantry Instruction*.—Practical. T.-11. One hour a week.

16-17-18. *Special Coast Artillery Instruction*.—Practical. T.-11. One hour a week.

30-31-32. *Special Air Service Instruction*.—Practical. T.-11. One hour a week.

Summer Basic Camp.—Optional after completion of first or second year's course. Students attending Basic Camp, with satisfactory records in the military department and at camp, will be credited with one quarter's work of that prescribed for the second year provided and when they shall sign the contract for the advanced course.

SECOND YEAR

One and two-thirds credits a quarter, five hours a week.

Basic Courses—All Units

50-51-52. *Infantry Drill. Ceremonies*.—Practical. Th.-11. One hour a week.

53-54-55. *Special Infantry Instruction*.—Practical. T.-11. One hour a week.

56-57. *Musketry*.—Theoretical and practical. M.W.F. Three hours a week; autumn, winter.

58. *Map Reading and Military Sketching*.—Theoretical and practical. M.W.F. Three hours a week; spring.

Special Course—Coast Artillery

66-67-68. *Special Coast Artillery Instruction*.—Practical. T.-11. One hour a week.

69-70-71. *Coast Artillery Materiel*.—Practical. M.W.F. Three hours a week.

72. *Motor Transport*.—Practical. M.W.F. Three hours a week; spring.

Special Course—Air Service

80-81-82. *Special Air Service Instruction*.—Practical. T.-11. One hour a week.

83. *Air Service Weapons*.—Practical. M.W.F. Three hours a week; autumn.

84. *General Air Service Subjects*.—Practical. M.W.F. Three hours a week; autumn.

85-86. *Communications*.—Practical. M.W.F. Three hours a week; winter, spring.

87. *Liaison*.—Practical. M.W.F. Three hours a week; spring.

Basic Courses—All Units

100-101-102. *Infantry Drill. Ceremonies*.—Practical. Th.-11 One hour a week.

106. *Military Law*.—Theoretical. Two hours a week; autumn.

107. *Military History*.—Theoretical. Two hours a week; autumn.

Special Course—Coast Artillery

116-117-118. *Special Coast Artillery Instruction*.—Practical. T.-11. One hour a week.

119. *Orientation*.—Theoretical. Two hours a week; winter.

120. *Field Engineering*.—Theoretical. Two hours a week; spring.

121. *Administration*.—Theoretical. Two hours a week; spring.

Special Course—Air Service

130-131-132. *Special Air Service Instruction*.—Practical. T.-11. One hour a week.

133. *Communications*.—Theoretical. Two hours a week; winter.

120. *Field Engineering*.—Theoretical. Two hours a week; spring.

121. *Administration*.—Theoretical. Two hours a week; spring.

FOURTH YEAR

Three credits a quarter, four hours a week.

Basic Courses—All Units

150-151-152. *Infantry Drill, Ceremonies*.—Practical. Th.-11. One hour a week.

Special Course—Infantry

153-154-155. *Special Infantry Instruction*.—Practical. T.-11. One hour a week.

156-157-158. *Minor Tactics*.—Theoretical.—Two hours a week.

159. *Administration*.—Theoretical. Two hours a week; autumn.

Special Course—Coast Artillery

166-167-168. *Special Coast Artillery Instruction*.—Practical. T.-11. One hour a week.

169-170. *Gunnery*.—Theoretical. Two hours a week; autumn, winter.

171. *Employment of Artillery*.—Theoretical. Two hours a week; spring.

Special Course—Air Service

180-181-182. *Special Air Service Instruction*.—Practical. T.-11. One hour a week.

183. *Aerial Photography*.—Theoretical. Two hours a week; autumn.

THIRD YEAR

Three credits a quarter, four hours a week.

184. *Aerial Gunnery*.—Theoretical. Two hours a week; autumn.

185. *Aeronautical Engines*. Two hours a week; autumn.

186-187. *Air Planes*.—Theoretical. Two hours a week; winter, spring.

188. *Minor Tactics*.—Theoretical. Two hours a week; spring.

METALLURGY

Mines Hall

PROFESSOR ROBERTS; ASSOCIATE PROFESSOR DANIELS, COREY; ASSISTANT, REDMOND

NOTE: Mining, metallurgical, geological, or ceramic experience. Each student is required to spend at least one summer vacation, or its equivalent, in practical contact with the industry, and to submit upon his return to college a detailed report of his observations. Work of this nature offers an opportunity to secure data and material for the graduation thesis.

101. *Fire Assaying*.—Testing of reagents, crushing, sampling and assaying of ores, furnace and mill products. Prerequisite, Chemistry 111. One recitation and three laboratory periods. Lab. fee, \$20. Five credits; autumn. Corey, Redmond, McCormick

102. *General Metallurgy*.—Properties of metals and alloys, fuels, refractory materials; furnaces; the extraction of the common metals from their ores. Visits to smelters. Prerequisite, junior standing. Three recitations and two laboratory periods. Lab. fee, \$10. Five credits; spring. Corey

103. *Metallurgical Fuels*.—Analysis of fuels and consideration of the most effective utilization of the country's present supplies. Prerequisite, junior standing. Two recitations and one laboratory period. Lab. fee, \$5. Three credits; winter. Daniels

104. *Non-ferrous Metallurgy*.—Metallurgy of copper, lead, gold and silver, especially the methods of roasting, smelting, lixiviation and refining. Prerequisite, Met. 102. Five recitations. Five credits; autumn. Corey

153. *Wet Assaying*.—Technical methods for the determination of copper, lead, zinc, etc., in ores and furnace products. For students in ceramics, analysis of clays and ceramics products. Prerequisite, Met. 102, Chem. 111. One recitation and two laboratory periods. Lab. fee, \$12. Three credits; winter. Corey

155. *Iron and Steel*.—Metallurgy and manufacture of commercial iron and steel; especial reference to their properties and uses in engineering work. Prerequisite, junior standing. Three recitations. Three credits; autumn. Daniels

157. *Design of Plant*.—Design of a piece of equipment or a structure for mining, milling, or metallurgical purpose. Prerequisite, senior or graduate standing. Three drafting periods. Three credits; spring. Roberts, Daniels

158. *Minor Metals*.—Metallurgy of zinc, antimony, tin, aluminum, nickel, etc.; a study of the plant required, the methods and costs of treatment. Three credits; spring. Corey

160. *Metallurgical Analysis*.—Technical methods of analysis of slags and industrial products. Prerequisite, Met. 153. Two laboratory periods. Lab. fee, \$12. Two credits; spring. Corey

162. *Metallography*.—Constitution and microstructure of metals and alloys, especially iron and steel. Prerequisite, senior standing. Two recitations. Two credits; autumn. Corey

163. *Metallography*.—Preparation and study of metal sections, photomicrography and the use of the microscope in testing industrial alloys. Two laboratory periods. Lab. fee, \$5. Two credits; winter. Corey

165. *Metallurgy Calculations*.—Physical chemistry for the metallurgists, slag calculations, etc., illustrated by figures quoted from the present practice

at a number of smelting plants. Prerequisite, senior standing. Two credits; winter. Corey

166. *Electrometallurgy*.—Study of methods and practice with special consideration of the possibilities of electrometallurgical industries in the Pacific Northwest. Prerequisite, senior or graduate standing. Three credits; spring. Corey

211, 212, 213. *Metallurgical Research*.—Study of methods applicable to the development of metallurgical processes for special ores and metals. Prerequisite, graduate standing. Hours and credits to be arranged. Corey

221, 222, 223. *Advanced Metallurgy*.—Application of electro-chemical and electrometallurgical knowledge to the solution of the particular problems of the Pacific Northwest. Prerequisite, graduate standing. Hours and credits to be arranged. Corey

MINING

Mines Hall

PROFESSOR ROBERTS; ASSOCIATE PROFESSORS DANIELS, COREY;
ASSISTANT PROFESSOR, WILSON; LECTURERS, GLENN, POWELL; ASSISTANTS,
SCHONING, MCCORMICK, MCKIM

NOTE—Mining, metallurgical, geological, or ceramic experience. Each student is required to spend at least one summer vacation, or its equivalent, in practical contact with the industry, and to submit upon his return to college a detailed report of his observations. Work of this nature offers an opportunity to secure data and material for the graduation thesis.

51. *Elements of Mining*.—Study of the field of mining, considering prospecting, boring, drilling, explosives, rock breaking, timbering, methods of development and working, transportation and drainage. Prerequisite, sophomore standing. Three recitations. Three credits; autumn. Daniels

101. *Milling*.—Preliminary course, designed to familiarize all students in the department with the principles and uses of the various types of crushing, sampling, concentrating and washing machinery in the Mines Building. Prerequisite, junior standing. Two recitations and one lab. period. Lab. fee, \$5. Three credits; autumn. Roberts, Daniels.

103. *Mine Rescue Training*.—Twenty-five hours of instruction. Practice in the care and use of oxygen rescue apparatus, smokeroom training, and first-aid-to-the-injured work in the U.S. Bureau of Mines Safety Station. Required of all students in the College of Mines. One credit; winter. Daniels, Schoning.

106. *Mining Excursion*.—A ten-day excursion, or two trips of five days each, taken in the spring of each year to a neighboring mining region; detailed examinations of mining and metallurgical industries. Expense varies from \$25 to \$50. Two credits; spring. *per. for 5 day trip* Roberts, Daniels, Corey.

120. *Coal Resources of North America*.—The occurrence of coal in North America with special reference to geographic and geologic distribution and structure; classification and commercial requirements of coals. Prerequisite, Min. 51. Three recitations. Three credits; spring. Daniels.

122. *Coal Mining Methods*.—Prospecting and development. Detailed study is made of a nearby mine. Prerequisite, Min. 51. Three recitations. Three credits; winter. Daniels.

151. *Mining Engineering*.—Lectures on exploration, mine development, power generation, air compression, hoisting and transportation. Practice with air compressors, machine drills, and mine equipment in laboratories and local plants. Prerequisite, senior standing. Two recitations, one lab. period. Lab. fee, \$5. Three credits; autumn.

152. *Ore Dressing*.—A detailed study of certain branches of ore dressing accompanied by mill tests of ores checked by assays. Prerequisite, senior standing. Three recitations and two laboratory periods. Laboratory fee, \$10. Five credits; spring. Roberts, Daniels.

153, 154, 155. *Thesis*.—The preparation of a graduation thesis, including outline, gathering of material, making of drawings, maps, tests, etc. The laboratory work is supplemented by consultation and conferences. A fee of \$5 or \$10 per quarter will be required to cover cost of materials in thesis work involving the use of mining or metallurgical equipment. Completed thesis must be submitted at least one month before graduation. Prerequisite, senior standing. Five lab. periods. Total of five credits required.

Roberts, Daniels, Corey.

158. *Mining Law*.—A series of lectures on the mining laws of the United States and Alaska; illustrated by diagrams and mine maps. Two lectures. Two credits; winter. O'Bryan.

162. *Mining Methods*.—A detailed study of mining methods and costs. Prerequisite, senior mining standing. Three recitations. Three credits; winter. Roberts.

163. *Mine Operation*.—The complete operations at a few typical mines, including mining, transportation and treatment of ore, disposal of products, company finances, and management. Illustrated by ores and products, maps and photographs, cost sheets, engineering and financial reports of the mines studied. Prerequisite, senior standing. Three recitations. Three credits; winter and spring. Roberts.

170. *Coal Mining Machinery*.—Study of coal cutting machines, mine locomotives, fans, hoists, and pumps with especial reference to application to coal mining. Prerequisite, senior standing. Three recitations. Three credits; autumn. Daniels.

171. *Mine Gases and Ventilation*.—Composition and properties of mine gases, methods of testing; lighting of mines; principles of ventilation; ventilating machinery. Prerequisite, Min. 122. Three recitations. Three credits; winter. Daniels.

172. *Coal Mining Plant*.—Design of plant and machinery employed in mining and preparing coal for market. Prerequisite, senior standing. Three drafting periods. Three credits; spring. Daniels.

176. *Coal Preparation*.—Methods of preparing coal for market, together with laboratory tests and runs on various coals, to determine best methods of preparation. Prerequisite, Min. 101, Met. 103. Two recitations and three lab. periods. Lab. fee \$10. Five credits; winter. Daniels.

178. *Coal Preparation Machinery*.—Machines and equipment used in tipples and washeries for the screening and washing of coal. Prerequisite, Min. 176. Two recitations. Two credits; spring. Daniels.

182. *Mine Management*.—Organization and administration of engineering plants, the keeping and interpretation of cost accounts, the efficiency of labor and methods, the financial, legal and social aspects of engineering operation. Prerequisite, senior standing. Three recitations. Three credits; spring. Daniels.

201, 202, 203. *Seminar*.—Lectures and discussions by Bureau of Mines staff, College of Mines faculty and fellows. Required of Bureau of Mines fellowship holders. Prerequisite, senior or graduate standing. One credit; autumn, winter, spring. Roberts, Daniels, Corey, Wilson

211, 212, 213, 214. *Graduate Thesis*.—Preparation of a thesis in mining engineering, metallurgy or ceramics. Prerequisite, graduate standing. A fee will be required if the work involves the use of laboratory materials or equipment. Hours and credits to be arranged.

Roberts, Daniels Corey, Wilson

221, 222, 223. *Mine Development*.—Preparation of a plan of development for a metal mine, including studies of the geological conditions, surface and underground explorations, mining methods, layout of plant. Prerequisite, graduate standing. Hours and credits to be arranged.

Roberts

231, 232, 233. *Mill Design*.—Design of a plant for ore dressing purposes. Prerequisite, graduate standing. Hours and credits to be arranged.

Roberts

241, 242, 243. *Coal Mining*.—Methods applicable to the solution of problems in the coal mining industry; higher recovery of minable coal; economical layout of mine and plant; application of improved methods and machinery. Prerequisite, graduate standing. Hours and credits to be arranged.

Daniels

251, 252, 253. *Coal Preparation*.—Advanced study of methods of coal preparation based on careful preliminary studies of character of coal and impurities in any locality. Laboratory testing will be emphasized. Prerequisite, graduate standing. Hours and credits to be arranged.

Daniels

261, 262, 263. *Utilization of Coal*.—Investigation of the possibilities of use of coals of low rank and quality. Briquetting, pulverization, and distillation will be given special attention. Prerequisite, graduate standing. Hours and credits to be arranged.

Daniels

MINING AND METALLURGICAL RESEARCH

THE TECHNICAL STAFF OF THE UNITED STATES BUREAU OF MINES NORTHWEST EXPERIMENT STATION IN CO-OPERATION WITH THE INSTRUCTORS IN THE COLLEGE OF MINES

Class work will be directed by members of the instructional staff of the University. The research work is under the joint direction of the United States Bureau of Mines and the College of Mines. The subjects of research relate to the mining and metallurgical industries of the state and adjacent regions.

During the coming year investigations are contemplated in the following subjects:

1. The preparation and utilization of coal.
2. Ceramics.
3. Electrometallurgy.

MUSIC

Music Building

PROFESSOR GLEN; ASSISTANT PROFESSORS DICKET, ROSEN, VENINO, WOOD; INSTRUCTORS, KIRCHNER, VAN OGLE, ADAMS, TILLEY, FRENCH; ASSISTANTS, FERRYMAN, BENTON, WILSON, BURCH

1, 2, 3. *Music Appreciation*.—Planned to aid not only music students but also all interested in music to become intelligent and discriminating listeners. Musical masterpieces, both instrumental and vocal, of different periods and forms, will be presented and discussed. Two credits a quarter; autumn, winter, spring.

Van Ogle, French

✓ 4, 5, 6. *History of Music*.—The progress of musical development from the primitive period to the modern. Two credits a quarter; autumn, winter, spring.

French

✓ 7, 8, 9. *Sight Singing*.—For prospective grade supervisors and for music students. Two sections—one for beginners and the other for students who

have had some experience in sight singing. Two credits a quarter; autumn, winter, spring. Dickey, Wilson

*10, 11, 12. *Choral Study*.—The university chorus provides the opportunity, for those qualified, to study the more serious as well as the lighter forms of choral composition. Candidates must satisfy the director as to the extent of their musical ability. One credit a quarter; autumn, winter, spring. Glen

14, 15, 16. *Ear Training and Melody Writing*.—Principles of melodic invention and training in hearing accurately; study in notation. Two credits a quarter; autumn, winter, spring. Dickey, Wilson

14D. *Ear Training*.—An intensive course for qualified students. Equivalent to Mus. 14, 15, 16. Five credits a quarter; autumn. French

17. *Choral Study*.—Part songs for men's voices. Candidates admitted only upon examination. Two credits; autumn. Glen

18, 19, 20. *Applied Music (Freshman)*.

68, 69, 70. *Applied Music (Sophomore)*.

118, 119, 120. *Applied Music (Junior)*.

168, 169, 170.—*Applied Music (Senior)*.

Students of other colleges and schools may earn one or two credits a quarter in the applied music courses. Students of the College of Fine Arts carry a larger number of credits—one and one-half to three—as indicated in the set courses. Students enrolled in these courses will be given opportunity, upon demonstration of the required ability, to participate in the public recitals of the department.

Unless excused by reason of advanced standing upon entrance, students who major in courses in applied music will require two lessons a week, ordinarily, in order to cover the work necessary for a degree. One to three credits a quarter.

(a) *Piano*.—Venino, Van Ogle, Ferryman.

(b) *Violin*.—Rosen. ✓

(c) *Voice*.—Glen, Tilley

(d) *Violoncello*.—Kirchner.

(e) *Pipe Organ*.—Burch.

22, 23, 24. *University Band*.—Competent players of band instruments are admitted to the band upon consent of the bandmaster. Two credits a quarter; autumn, winter, spring. Adams

28, 29, 30. *Ensemble Singing*.—A choral course for women. Only advanced students will be admitted. One credit a quarter; autumn, winter, spring. Glen

31, 32, 33. *University Orchestra*.—The orchestra affords to qualified students an opportunity for the study of the better grades of orchestral composition. No one is eligible to enter the course unless the director is satisfied of the ability of the applicant. One credit a quarter; autumn, winter, spring. Glen

34, 35, 36. *Voice Training*.—Presenting the principles of correct breathing and tone production essential to good singing. Two credits a quarter; autumn, winter, spring. Tilley

51, 52, 53. *Harmony*.—Ear training, analysis, and keyboard practice. Prerequisite, Mus. 7, 8, 9, and 14, 15, 16. Three credits a quarter; autumn, winter, spring. Wood, Wilson

*Only those who have successfully completed the work in course 11 will be eligible for registration in course 12.

51D, 52D. *Harmony*.—An intensive course for qualified students. Equivalent to Mus. 51, 52, 53. Prerequisite, Mus. 14, 15, 16, or 14D. Five credits a quarter; winter and spring. French

54, 55, 56. *School Music*.—A course for supervisors Prerequisite, Mus. 7, 8, 9, and 14, 15, 16. Two credits a quarter; autumn, winter, spring. Dickey

*57, 58, 59. *Advanced Sight Singing*.

101, 102, 103. *Advanced Harmony*.—Prerequisite, Mus. 51, 52, 53. Three credits a quarter; autumn, winter, spring. Wood, Wilson

104, 105, 106. *History of Music*, Advanced.—Detailed study of important periods and composers of modern music. Two credits a quarter; autumn, winter, spring. Van Ogle

107, 108, 109. *Counterpoint*.—The regulation of two or more simultaneous melodies. Prerequisite, Mus. 51, 52, 53. Two credits a quarter; autumn, winter, spring. Wood

110, 111, 112. *Instrumental Form*.—Analysis of many examples and simple exercises in composition. Prerequisite, Mus. 51, 52, 53. Two credits a quarter; autumn, winter, spring. Wood

113, 114. *Music Education*.—Psychological and pedagogical principles and their application to the teaching of music. Prerequisite, Mus. 54, 55, 56. Two credits a quarter; autumn, winter. Dickey

124, 125, 126. *Chamber Music*.—Advanced study of the musical literature for string trios, quartets and quintets. One credit a quarter; autumn, winter, spring. Rosen

127, 128, 129. *Advanced Sight Singing*.—Study of larger choral works. Prerequisite, Mus. 7, 8, 9, or instructor's permission. Two credits a quarter; autumn, winter, spring. Dickey

130, 131, 132. *University Band (advanced)*.—Continuation of the work of the freshman and sophomore years in the study and production of more difficult compositions for band. One credit a quarter; autumn, winter, spring. Adams

151, 152, 153. *Musical Appreciation*.—An appreciative study of some modern composers and schools. Two credits a quarter; autumn, winter spring. Van Ogle

154, 155, 156. *Music Education and Supervision*.—For seniors and students of experience. High school, normal school and institute music. Prerequisite, Mus. 113, 114, and Educ. 160.N. Two credits a quarter; autumn, winter, spring. Dickey

157, 158, 159. *Free Composition*.—Choral work, piano accompaniment idioms, vocal and instrumental solos and pieces in the smaller forms. Prerequisite, Mus. 101, 102, 103. Two credits a quarter; autumn, winter, spring. Wood

160, 161, 162. *Polyphonic Forms*.—Free counterpoint applied to the invention, canon, fugue, etc. Analysis and composition. Prerequisite, Mus. 107-108-109. Two credits a quarter; autumn, winter, spring. Wood

NOTE:—For teacher's course in school music see department of education, Educ. 160.N.
*Not offered in 1922-1923.

180, 181, 182. *University Band (advanced)*.—Prerequisite, Mus. 130, 131, 132 or their equivalents required. One credit a quarter; autumn, winter spring. Adams

COLLEGE COURSES IN APPLIED MUSIC

The courses outlined are not arbitrary. They indicate the amount and character of the work that the student is expected to cover for his musical degree. Credit will be given for equivalent courses pursued elsewhere prior to entering the University.

Students not wishing to offer work in applied music as a major, may receive credit for applied music work done under the supervision of others than the instructional staff of the department, upon satisfying departmental and University requirements by examination. This practice will be discontinued at the end of the year 1922-1923. Approved equivalents of applied music courses in piano, voice and violin may also be credited.

PIANO

Scholarship in Piano Study.—Mr. A. F. Venino offers an annual scholarship to the candidate showing the greatest proficiency and promise in piano playing. This scholarship carries free tuition for one weekly lesson throughout the autumn, winter and spring quarters. All candidates must submit their application in writing to Dean Glen before September 1. The competitive examination preliminary to the award will be held in the Music Building at 2 p. m. of the Saturday before registration day.

Freshman and Sophomore Years.—Major and minor scales and arpeggios; studies selected from Czerny, Cramer, Loeschorn, Kullak, Hiller and Krause; sonatas by Scarlatti, Haydn, Clementi, Mozart and Beethoven; shorter compositions and inventions by Bach; and works from the classic and romantic schools.

Junior and Senior Years.—Scales in thirds, sixths and tenths; studies by Czerny, Clementi, Chopin, Brahms, MacDowell and Moszkowski; well-tempered Clavichord and suites of Bach; sonatas, pieces including at least one concerto, taken from the classic, romantic or modern composers. At least one recital program must be played from memory from the repertoire studied.

VOCAL MUSIC

The course in vocal music is even more flexible than outlined for piano study. The purpose is to develop the voice and musical understanding so that the best in vocal music may be faithfully interpreted. The fact of having studied vocal music for four years will not necessarily entitle a student to graduation.

Freshman.—Practical work in voice placing, breathing studies from among the following: Concone, Op. 9; Marchesi, Op. 1; Panofka, Op. 85; Vaccai, Book I; simple Italian and English songs.

Sophomore.—Progressive tone work; Bordogni, Concone, Marchesi, Panofka, simple Italian arias, Italian and English songs.

Junior.—Tone work; advanced technique. Arias from Italian, French and German operas. German song classics; modern French and English songs.

Senior.—Tone work and technique. Repertoire in opera and oratorio; recitals; senior program.

VIOLIN

Freshman.—Violin Method, Book I, Rosen; Exercises Op. 45, Book I, Wohlfahrt; Book I, De Beriot; Exercises Op. 68.

Sophomore.—Scales, Hymaly; Studies, Blumenstengel Op. 33, Mazas, Books I and II; Concerto, Accoly; Scene de Ballet, De Beriot.

Junior.—Scales, Book II, Baillot; Exercises, Books I and II, Schraedieck; Etudes, Kreutzer, Fiorillo, Rode, Rovelli; Concerto, 9 and 7, De Beriot; Concerto, 2 and 8, Spohr also one sonata by Handel.

Senior.—Scales, Rosen; Etudes, Dancla; Op. 73, Gavini; Op. 35, Dont; Sonata for violin alone, Bach; Concerto, Bruch, Mendelssohn, D-Minor, Wieniawski and No. 4 Vieuxtemps.

In the last quarter the student is obliged to memorize one sonata by Bach for violin alone and one of the concertos given in the fourth year.

FEES

Since most of the work in the courses in applied music must necessarily be of the character of individual instruction, the student will be required to pay tuition fees for this work in addition to the general University tuition fee.

All fees are payable in advance to the Comptroller of the University. The following quotations of regular fees are based on one lesson per week. More than one lesson per week will be charged for at the same rate. All lessons are one-half hour in length.

Piano.—Mr. Venino, \$22 a quarter; Mrs. Van Ogle, \$22 a quarter; Miss Ferryman, \$15 a quarter.

Vocal Music.—Miss Tilley, \$22 a quarter.

Dean Glen will give individual instruction in singing and repertoire to a maximum number of ten students. The fee will be at the rate of \$27 a quarter for one lesson weekly.

Violin.—Mr. Rosen, \$22 a quarter. Miss Benton, \$15 a quarter.

Pipe Organ.—Miss Burch, \$15 a quarter.

Band and Orchestra Instruments.—Mr. Adams, \$15 a quarter.

Arrangements may be made for individual instruction in other musical courses if necessary or desirable.

Piano for practice may be rented at the comptroller's office at the following rates:

One hour daily, \$3 a quarter.

Two hours daily, \$5 a quarter.

Pipe organ for practice; one hour daily, \$12.50 a quarter.

All rental charges must be paid in advance. No rebate in these charges will be allowed. Lessons lost through enforced absence may not be made up unless the teacher in charge has been previously notified of the intended absence and is willing to accept the excuse for the absence.

NURSING

Home Economics Hall

ELIZABETH S. SOULE

1. *History of Nursing.*—Informational study of nursing from the earliest times; the traditions of nursing as a profession. Open to any woman student in the University. Five credits; autumn. Soule.

3. *Ethics of Nursing*.—A course designed to introduce the student to those recognized principles which govern her relationship to the patient, the physician, the hospital and the public. Three credits; spring. Soule.

5. *Home Care of the Sick*.—A practical course for women students. Instruction given in baths and bed making, care of patients ill with common contagious diseases, care of chronics, invalids and babies. Two credits; autumn, winter, spring. Soule.

51, 52, 53. *Public Health and Special Fields*.—Lectures on various phases of public health work in relation to special problems. Case plans discussed and study of records made. Two credits a quarter; autumn, winter, spring. Soule.

102. *Principles of Public Health Nursing*.—Lectures on social and nursing technique in public health nursing. Discussion and observation of infant welfare, school, industrial, tuberculosis, and general visiting nursing. Theoretical and practical work required. Prerequisite, graduate registered nurse. Three credits; autumn. Soule.

103. *Administration of Public Health Nursing*.—Course deals with the organization and administration of societies organized for visiting nursing, methods of collecting funds, boards of directors, and various committees of these associations, office equipment, records, vital statistics, and supervision of staff nurses will be dealt with. Prerequisite, Nurs. 102. Three credits; winter, spring. Soule.

110. *Public Health Nursing*.—The field work is intended to give a practical knowledge of the entire field of public health nursing. Discussion of family problems, demonstration in nursing technique, culture taking, milk modification, maternity care, discussion of general district problems, current events, home visiting in relation to communicable diseases, including tuberculosis, sick and well babies, pre-natal cases, general visiting nurse work, free and pay cases and follow-up work of the schools. Prerequisite, Nurs. 102. Eight to sixteen credits; time to be arranged. Soule.

ORIENTAL HISTORY, LITERATURE AND LANGUAGES

Philosophy Hall

PROFESSOR GOWEN

The requirement of one year's work in ancient languages and literature may be satisfied by courses 50, 51 and 52. Courses 21, 22 and 23 count for credits in the department of history; courses 40, 41 and 42 in the College of Business Administration; and courses 114, 115 and 116 in the department of philosophy. Courses above 100 are for juniors, seniors and graduates.

21. *History of China I*.—History of China from the earliest times to the Manchu Conquest. Three credits; autumn. Gowen

22. *History of China II*.—History of China from the Manchu Conquest to the present day. Three credits; winter. ^{Japan} Hall Gowen.

23. *History of Japan*.—Japan from the earliest times to the present. Three credits; spring. ^{Japan} Hall Gowen.

30-31-32. *Semitic Literature*.—A study of the literature of the Old Testament. Continuous through the three quarters, but each course independent and self-contained. One credit a quarter; autumn, winter, spring. Gowen.

40-41. *Oriental Institutions*.—*Japan, Russia, and China*.—The physical geography, social character and commercial resources of the Orient. Two credits a quarter; autumn, winter. Gowen.

Hall for winter

50. *Literature of India*.—Five credits; autumn. Gowen.
51. *Literature of Egypt, Babylonia, and Palestine*.—Five credits; winter. Gowen.
52. *Literature of Arabia and Persia*.—Five credits; ~~spring~~ ^{winter} Gowen ~~Hall~~
- 100-101-102. *Hebrew*.—The giving of these courses depends upon registration. Five credits a quarter; autumn, winter, spring. Gowen.
- 104-105-106. *Sanskrit*.—The giving of these courses depends upon registration. Five credits a quarter; autumn, winter, spring.
107. *Advanced Hebrew*.—Five credits; autumn. Gowen.
- 108, 109. *Arabic*.—Five credits; winter, spring. Gowen.
- 114-115-116. *History of Religion*.—Autumn quarter—Primitive conceptions of religion, the religions of Egypt and the Euphrates valley. Winter quarter. The religions of the Far East. Spring quarter—Judaism, Muhammadanism, and Christianity. Three credits a quarter; autumn, winter, spring. Gowen.

all of winter qtr. course but 52, 41, 22 withdrawn

PAINTING, SCULPTURE AND DESIGN

Philosophy Hall

INSTRUCTORS, CAMPBELL, RHODES; ASSOCIATES, PATTERSON, WORMAN, WEHN;
ASSISTANTS, SARGENSON, STORM

Advanced students applying for credit must present work to head of department.

3. *Principles of Design*.—The principles of design in line, dark and light, and color. For students in home economics. Four credits; autumn, winter, spring. Sargenson.

5-6-7. *Free-hand Still Life and Cast*.—The technique of drawing from elementary forms, with all mediums—water color, oil, pen, etc. Prerequisite for any subsequent course in drawing and painting; cast drawing from models of antique and modern sculpture, preparatory to drawing from living model. Lab. fee, \$2. Three credits a quarter; autumn, winter, spring. Patterson.

9-10-11. *Art Structure*.—A study of the principles of design in line, dark and light, and color, to develop power of appreciation and creation of good design. Prerequisite for any subsequent course in art structure. Lab. fee, \$2. Four credits a quarter; autumn, winter, spring.

Edens, Sargenson, Storm.

16-17-18. *Art Appreciation*.—Historical development, from the art of primitive man to the present day. One credit a quarter; autumn, winter, spring. Rhodes.

53. *Art Structure*.—Batik and tie-dyeing. Lab. fee, \$2. Four credits; autumn. Storm.

54. *Art Structure*.—Bookbinding and woodblock printing. Lab. fee, \$2. Four credits; winter. Storm.

55. *Art Structure*.—Textile design. Lab. fee, \$2. Four credits; spring. Storm.

56-57-58. *Illustration*.—Drawing and painting, from the model in various mediums, for reproductive processes such as magazines, newspapers and commercial work. Prerequisite, freshman free-hand. Lab. fee, \$3. Three credits a quarter; autumn, winter, spring. Patterson.

59-60-61. *Household Design*.—Designs for tiles, leaded glass, metal-works, fixtures and embroidery. Three credits a quarter; autumn, winter, spring. *Lacy Campbell*

72-73-74. *Sculpture—Clay Modeling*.—Construction of plaster moulds, elementary construction; modeling in clay and wax. Lab. fee, \$3. Three credits; autumn, winter, spring. *1 cr. for Architecture* *Advanced sculpture course* *Wohn.*

101. *Public School Drawing*.—For drawing supervisors. The working out of such drawings as would be used in the public schools. Three credits; spring. *Rhodes.*

103-104. *Art Structure*.—Pottery.—Advanced students will be allowed to work for advanced credits. Lab. fee, \$2. Three credits a quarter; autumn, winter. *104 given fall for A Donahoe* *Worman.*

105. *Art Structure*.—Design as applied to lettering, advertising, and posters. Three credits; autumn. *Rhodes.*

106. *Art Structure*.—^{adv}Posters. Three credits; winter. *Rhodes.*

107-108-109. *Portrait*.—Portraiture in all mediums. Prerequisite, freshman free-hand. Lab. fee, \$3. Three credits a quarter; autumn, winter, spring. *Patterson.*

110-111-112. *Art Structure*.—Interior decoration. Three credits a quarter; autumn, winter, spring. *Lacy Campbell.*

113-114-115. *Furniture Design*.—Lectures on the history of furniture and the working out of original designs in furniture. Two credits a quarter; autumn, winter, spring. *Lacy Campbell.*

151-152. *Landscape*.—Interpretations of landscape in design. Three credits a quarter; winter, spring. *metalwork* *Rhodes.*

160-161-162. *Life*.—Lab. fee, \$3. Three credits a quarter; autumn, winter, spring. *160 given fall for 3 cr. winter* *Nobles* *Patterson.*

163-164-165. *Mural Decoration*.—Decorative compositions done in oil applied to the beautifying of wall spaces, in harmony with the scheme of architecture. Prerequisite, junior standing. Lab. fee, \$3. Three credits a quarter; autumn, winter, spring. *Mrs. Ducasse - OK for 164* *Patterson.*

*166. *Landscape*.—*fall & winter* *E.N.S.*

169-170-171. *Textile and Costume Drawing*.—Two credits a quarter; autumn, winter, spring. *Rhodes.*

172-173-174. *Interior Decoration*.—Advanced problems in interior decoration in elevation and perspective. Five credits a quarter; autumn, winter, spring. *Campbell.*

NOTE:—For teacher's course in methods of teaching art, see department of education, Educ. 160-P.

151, 152, 153 - 3 cr. - Nobles
**PHARMACY AND PHARMACEUTICAL CHEMISTRY, MATERIA MEDICA
 AND FOOD CHEMISTRY**

Jewelry Bagley Hall

PROFESSOR JOHNSON; ASSOCIATE PROFESSOR OSSEWARD; ASSISTANT
 PROFESSOR LYNN; INSTRUCTORS, GOODRICH, HILTON
 AND ASSISTANTS

1, 2, 3. *Theoretical and Manufacturing Pharmacy*.—Study of the principles of pharmaceutical operations, and manufacture of Pharmacopoeial and

National Formulary preparations. Three lectures and two laboratory periods per week. Lab. fee, \$7.50 a quarter. Five credits a quarter; autumn, winter, spring. Goodrich, Hilton.

4. *Commercial Pharmacy*.—A lecture course covering the commercial problems of the practical pharmacist. Two credits; spring. Osseward.

5, 6, 7. *Drug Assaying*.—Experiments in gravimetric and volumetric analysis are given with the idea of training the student in the fundamental principles of quantitative analysis, at the same time making them familiar with the analysis of substances of pharmaceutical importance. Alkaloid assay of crude drugs and assay of volatile oils are a part of the course. Two lectures and three laboratory periods per week in autumn and winter quarter. Two lectures and two laboratory periods per week in spring quarter. Five credits; autumn, winter. Four credits; spring. Lab. fee, \$7.50. Goodrich

9, 10, 11. *Prescriptions*.—Study of dispensing and laboratory practice. Students criticize and compound approximately two hundred selected prescriptions. One lecture and one laboratory period a week. Deposit \$3, a quarter. ~~Two~~ credits a quarter; autumn, winter, spring. Osseward.

12, 13. *Materia Medica*.—Study of crude organic drugs, their source, methods of collecting and preserving, identification, active constituents and adulterations. Three lectures a week. Three credits; winter, spring. Goodrich.

15. *Field Materia Medica*.—Study of the native medicinal plants of Washington and plants under cultivation in the drug garden. One laboratory period per week, consisting largely of work in the drug garden and field trips. Lab. fee, \$1. One credit; spring. Goodrich

16. *Food Laws*.—National, state and foreign food laws. For students in the department of fisheries. One credit; winter. Lynn.

101, 102, 103. *Pharmacology and Toxicology*.—The physiological actions of drugs in health and disease; the therapeutic uses and posology; symptoms and treatment in cases of poisoning. Two credits a quarter; autumn, winter, spring. Lynn.

105, 106, 107. *Chemistry and Analysis of Food*.—Methods of analysis of food products and the study of federal and state laws regulating the sale of foods and drug products. Methods of the Association of Official Agricultural Chemists are used. Lab. fee, \$7.50 a quarter. Five credits a quarter; autumn, winter, spring. Lynn.

~~109, 110. Prescriptions.~~

113, 114, 115. *Advanced Prescriptions*.—Extensive practice in difficult and incompatible prescriptions, also a study of special problems in dispensing. Credit to be arranged. Deposit according to credit. Autumn, winter, spring. ~~5 cr~~ Osseward.

117, 118. *United States Pharmacopoeia and National Formulary*.—A study of the chemistry and pharmacy of the U.S.P. and N.F. preparations and inorganic chemicals. Two recitations a week. Two credits; autumn, winter. ~~119 study of U.S. Pharmacopoeia~~ Johnson.

121, 122, 123. *Toxicology*.—Laboratory course in the separation, identification and estimation of inorganic and organic poisons and in the analysis of alkaloids. Laboratory deposit according to credit. Credit to be arranged; autumn, winter, spring. Johnson.

125, 126, 127. *Current Problems*.—Lecture and recitation course in current pharmaceutical problems, commercial and scientific. Use is made of the current number of most of the pharmaceutical journals published in the United States, also of several medical journals. One credit; autumn, winter, spring. Osseward.

129, 130, 131. *Manufacturing Pharmacy*.—Advanced course in pharmaceutical manufacturing, including the manufacture of some of the more difficult of the Pharmacopoeial and National Formulary preparations, as well as a number of organic and inorganic compounds used in pharmacy and medicine. Laboratory deposit according to credit. Credit to be arranged; autumn, winter, spring. Goodrich, Hilton.

201, 202, 203. *Investigation*.—Senior and graduate students may undertake some original investigation in pharmacy, pharmaceutical chemistry or chemistry of foods under the direction of one of the instructors. Laboratory deposit according to credit. Credit to be arranged; autumn, winter, spring.

PHILOSOPHY

Philosophy Hall

PROFESSOR SAVERY; ASSISTANT PROFESSOR DUCASSE; INSTRUCTOR BLAKE;
TEACHING FELLOWS AND ASSISTANTS

The Liberal Arts requirement is five credits in philosophy. This requirement may be satisfied by any one of the following courses: Philosophy 1, 2, 3, 5. (None of these has any prerequisites).

Philosophy 2 is required of seniors in the College of Business Administration.

Philosophy 1, 2 and 5 are suited to arts-law students.

Psychology 1 is required of majors in philosophy.

1. *Introduction to Philosophy*.—Five credits; autumn, winter, spring. Savery, Ducasse, Blake.

2. *Introduction to Social Ethics*.—Social ideals and problems, with special emphasis upon the opposition of democracy and aristocracy in government, industry, law, education, art, and religion. Five credits; winter. Savery and assistants.

3. *Introduction to Ethics*.—Ethical principles and their application to the problems of life. Five credits; spring. Blake and assistants.

5. *Introduction to Logic*.—The conditions of clear statement, adequate evidence, and valid reasoning, and their establishment in the mental processes of the student. Five credits; autumn and winter. Ducasse.

101-102-103. *History of Philosophy*.—Ancient, medieval and modern. Three credits a quarter; autumn, winter, spring. Blake.

104-105-106. *Metaphysics*.—A course in metaphysics, with special reference to the concepts and principles of science. For advanced students in philosophy or in the physical or biological sciences. Three credits a quarter; autumn, winter, spring. Savery.

*113. *Philosophy of Religion*.

Oriental Lit. and Lang. 114-115-116. *History of Religion*.—Autumn quarter: primitive conception of religion, the religions of Egypt and the

Euphrates Valley. Winter quarter: The religions of the Far East. Spring quarter; Judaism, Muhammadanism, and Christianity. Three credits a quarter; autumn, winter, spring. Gowen

123. *Philosophy in English Literature of the Nineteenth Century*.—From Wordsworth to Shaw, Wells and Chesterton, and including Emerson, Whitman and Masters. (Alternates with Eng. 187 as requirement for seniors in the Library School.) Prerequisite, Phil. 1. Five credits; spring. Savery.

129. *Esthetics*.—The origin and motives of art and the esthetic principles of the different forms of art. Five credits; spring. Ducasse.

132. *Social Ethics*.—(Same as course 2). Social ideals and problems, with special emphasis upon the opposition of democracy and aristocracy in government, industry, law, education, art, and religion. Five credits; winter. Savery and assistants

133. *Ethical Theory*.—An advanced course in the fundamental concepts and principles of ethics. Prerequisite, Phil. 2 or 3. Two credits; spring. Savery.

141-142-143. *Contemporary Philosophy*.—A study of modern movements and controversies. Readings and discussions on such topics as pragmatism, the new intuitionism, mysticism, the philosophy of faith, fate and free will, mechanism and vitalism, materialism and idealism, the finite and infinite, the new realism, the nature of mind, relativity. Two credits a quarter, autumn, winter, spring. Blake.

*English 187. *Philosophy in Contemporary Drama*.

GRADUATE COURSES

211-212-213. *Philosophy of Mathematics*.—An account of symbolic logic and its relation to the remainder of mathematics. Open to students upon approval of instructor. Two credits a quarter; autumn, winter, spring. Savery.

241-242-243. *Plato and Aristotle*.—Reading of the texts in translation, with discussion and interpretation. Two or three credits a quarter; autumn, winter, spring. Blake.

247-248-249. *Seminary. The Philosophy of Schopenhauer and Nietzsche*.—The philosophy of the will. The will to live and the will to power. Contrast of Schopenhauer's pessimism and Nietzsche's affirmation of the value of life, Schopenhauer's doctrine of sympathy and Nietzsche's egoism, democratic and aristocratic codes of morality, the saint and the superman. Open to students upon approval of instructor. Two or three credits a quarter; autumn, winter, spring. Ducasse.

PHYSICAL EDUCATION AND HYGIENE FOR MEN

Gymnasium

ASSISTANT PROFESSOR ARBUTHNOT, DIRECTOR;
PROFESSOR HALL, UNIVERSITY HEALTH OFFICER

Requirements for Graduation.—All students, both men and women, are required to take a prescribed amount of directed physical training and hygiene or military science and tactics.

Military Training.—Requirements in military science and tactics take precedence over the requirements in physical education. (See Military Science and Tactics.)

*Not offered in 1922-1923.

Physical Examination.—Upon entering college each student is given a physical examination. On the basis of their examination students are segregated in three divisions: A, B, and C.

All able bodied men shall satisfy all requirements in this department with two years of military science and tactics. Students exempt from military training for any reason must take the same number of hours in physical training.

1-2-3. Calisthenics and Gymnasium.—Introductory courses for freshmen. One and two-thirds credits a quarter; autumn, winter, spring. Arbutnot.

16-17-18. Intramural Sports and Games.—For freshmen. One and two-thirds credits a quarter; autumn, winter, spring.

51-52-53. Calisthenics and Gymnastics.—For sophomores. One and two-thirds credits a quarter; autumn, winter, spring.

57-58-59. Intramural Sports and Games.—For sophomores. One and two-thirds credits a quarter; autumn, winter, spring.

PHYSICAL EDUCATION AND HYGIENE FOR WOMEN

Gymnasium

ASSISTANT PROFESSOR GROSS, DIRECTOR; INSTRUCTOR, AID;
ACTING INSTRUCTOR, ANDERSON; LECTURER, IRWIN; ASSOCIATE, BLOOM;
ASSISTANT, FORCHNER

There are two kinds of classes in this department.

a—Those required for graduation. All women, during the freshman year of college attendance are required to participate two hours a week in some form of healthful exercise; the sophomore year may be taken in the sophomore, junior or senior year. The kind of exercise is determined by the medical and physical examination, and the amount of physical education the student has had in accredited high schools. The course in Personal Hygiene is required of freshmen; the course in Nutrition and Food is required of sophomores. Ten credits, six in healthful and recreational exercise, two in Hygiene and two in Nutrition and Food, are required for graduation.

1. The policy of allowing the sophomore healthful exercise to be taken during the sophomore, junior or senior year, at the election of students, is a temporary one, adopted by the University on account of the congested conditions in the University gymnasium.

2. Women who do not take physical education during the sophomore year, will obtain written notices of deferment from the head of the department and file these in the registrar's office.

b—Those leading to a major in physical education in the College of Science, or in the School of Education.

Teachers well trained in all phases of physical education are in demand, the most frequent calls being for school supervisors and recreation leaders. Students interested in courses in recreation and community leadership should see announcement for School of Education.

Intramural Athletics.—Intramural contests, under the supervision and control of the department, are conducted in the following sports: baseball,

hockey, tennis, basketball, archery, field events, volley ball and golf. The Women's Athletic Association co-operates with the department in the conduct of these activities. All students are urged to come out for at least one sport.

Uniforms.—A uniform, consisting of serge tunic, white blouse and black gymnasium shoes is required of all students, and may be purchased at the University Book Store. The cost is \$12. No part of the uniform should be purchased before entering college.

Courses.—Courses 1-2-3 and 7-8-9 are open to freshmen who have had less than two years of physical education. Hygiene is required of all freshmen. Courses 10-11-12 are open to freshmen who have had two years or more of physical education. Courses 51 to 99 are open to sophomores who have had three quarters of freshman work. Courses 54-55-56, Food and Nutrition, is required of all sophomores. Courses 100 to 200 are open to all student who have the prerequisites; these courses carry academic credit.

1-2-3. Healthful Activities.—A general course, includes gymnastics, dancing, athletics. For students who have had less than two years in high school, two hours practice a week. One credit a quarter; autumn, winter, spring.

Gross, Anderson, Forchemer.

4-5-6. Hygiene.—One hour of lecture. Two-thirds credit a quarter; autumn, winter, spring.

Irwin.

7-8-9. Corrective Gymnastics.—Two hours of practice. One credit a quarter; autumn, winter, spring.

Bloom

10-11-12. Healthful Activities.—Gymnastics, dancing, and athletics. Open to freshmen who have had at least two years' physical education in high school. Autumn, winter, spring.

Aid, Anderson.

13-14-15. Limited Healthful Activities.—Light gymnastics, the less strenuous games and athletic activities, the lightest forms of dancing. Open, upon the recommendation of the examining physician, to students for whom the regular classes are too strenuous. Two hours a week. One credit a quarter; autumn, winter, spring.

Forchemer.

54-55-56. Food and Nutrition.—Food as related to health. Required of all second year women. One lecture a week. Two-thirds of a credit; autumn, winter, spring.

13155 Amery

57-58-59. Corrective Gymnastics.—Two hours of practice. One credit a quarter; autumn, winter, spring.

Bloom.

61-62-63. Dancing.—Two hours of practice. One credit a quarter; autumn, winter, spring.

Aid, Forchemer

64. Hockey.—Two hours of practice. One credit; autumn.

Forchemer, Aid.

65. Basketball.—Two hours of practice. One credit; winter.

Anderson.

67. Elementary Tennis.—Two hours of practice. One credits; autumn, spring.

Anderson.

69. Advanced Tennis.—Prerequisite, Phys. Educ. 67. Two hours practice. One credit; autumn, spring.

Anderson.

70. Rifle Shooting.—Two hours of practice. One credit a quarter; autumn, winter, spring.

Frazer

75. Archery.—Two hours practice. One credit; spring.

Aid.

81. Baseball.—Two hours practice. One credit; spring.

Anderson.

82-83-84. *Limited Healthful Activities*.—A continuation of Phys. Educ. 13-14-15. For students for whom regular work is too strenuous. Two hours practice. One credit; autumn, winter, spring. Forchemer.

87. *Golf*.—Two hours practice. One credit; autumn, winter, spring. Jefferson.

88. *Advanced Golf*.—Prerequisite, Phys. Educ. 87. One credit; spring. Jefferson.

101-102-103. *Methods of Gymnastics*.—Drill in gymnastics. Gymnastic terminology and survey and classification of gymnastic material. Natural gymnastics. Principles and technique of teaching. Prerequisites, or accompanying courses, Anat. 101-102 and Physiology 54-55. Two hours lecture and two hours practice a week. Three credits a quarter; autumn, winter, spring. Aid.

104-105-106. *Methods of Folk Dancing*.—Dances of the nations arranged for teaching in schools. Technique, methods of teaching, relation of music to dancing; costuming, school festivals, etc. Prerequisite, 1 year of dancing or Phys. Educ. 111-112-113. One hour lecture and two hours practical work a week. Two credits a quarter; autumn, winter, spring. Gross.

*109. *History of Physical Education*.

111-112-113. *Plays and Games*.—Nature, function and theory of play. Singing games, dramatic plays, graded games, organization and administration of playgrounds, conduct and equipment of play centers. Play in education and civic life. Commercial and municipal recreation and agencies promoting activity. Administration of athletics. One lecture and three hours practical work a week. Three credits a quarter; autumn, winter, spring. Gross.

131-132-133. *Theory and Practice in Corrective Gymnastics*.—Study of deviations from the normal, remedial gymnastics and application of exercises for correction, kinesiology. Two hour lectures and four hours practice. Prerequisites, Anat. 101-102 and Physiology 54-55. Four credits a quarter; autumn, winter, spring. Bloom.

152. *Administration of Physical Education*.—Study of curricula for grades and high schools; school administration. Value of various types of activities. Prerequisite, Phys. Educ. 101-102-103, and 104-105-106. Two credits a quarter; winter. Gross.

153. *Methods in Health Instruction*.—Material and methods in teaching hygiene in the grades. Two hours a week. Two credits; spring. Gross.

154-155-156. *Natural Dancing*.—Prerequisite, Phys. Educ. 104-105-106. Technique of natural dancing, based on natural movements. Composing of dance dramas. One hour lecture and two hours practice. Two credits a quarter; autumn, winter, spring. Aid.

161. *Normal Diagnosis*.—Diagnosis of the normal and deviations from the normal. Prerequisite, Anat. 101-102 and Physiography 54-55. Two credits; spring. Irwin.

167. *Hockey Coaching*.—Methods of coaching hockey. Prerequisites, Psych. 1, and knowledge of and participation in hockey. One hour lecture and two hours practice. Two credits; autumn. Forchemer.

169. *Tennis and Archery Coaching.*—Prerequisite, Psych. 1. One hour lecture, two hours practice. Two credits; spring. Anderson, Aid

170-171-172. *Advanced Athletic Coaching.*—Coaching in basketball, baseball. Students will take charge of classes in sports. Prerequisite, Psych. 1, Educ. 101 and knowledge of game. One hour lecture and two hours of practice. Two credits; autumn, winter, spring. Anderson.

174. *Teachers' Course in Swimming.*—Methods of teaching strokes during life saving. The construction and hygiene of the pool. Methods of filtration and general organization. Y.W.C.A. pool. Lab. fee \$2. One credit; winter

179. *Public Recreation.*—Problems in civic and community recreation with practice in field houses and playfields. Prerequisites, Phys. Educ. 104-105-106 and 111-112-113. Three credits; winter. Gross.

NOTE:—For course in Anthropometry and Biometrics, see department of sociology, Soc. 163.

For teachers' course in physical education, see department of education, Educ. 160-R.

180 - *Camp Craft* - 3 cr. - sp. - Gross.
PHYSICS
Denny Hall

PROFESSOR OSBORN; ASSOCIATE PROFESSOR BRAKEL; ASSISTANT
PROFESSOR ANDERSON; INSTRUCTORS, UTTERBACH AND ELLER;
DEMONSTRATOR, HIGGS

1-2. *General Physics.*—Courses 1-2 will satisfy the physical science requirement in the colleges of Liberal Arts and Science. Prerequisite, high school physics or 47, 48, 49. Lab. fee, \$2.50. Five credits a quarter; autumn, winter. *For architecture students only 4 hrs.* Osborn.

3. *General Electricity.*—Required of physics majors; of mathematics majors taking physics as a minor, and of all pre-medical students. Prerequisite, Phys. 1-2. Lab. fee, \$2.50. Five credits; spring. Osborn.

47-48-49. *High School Physics.*—For students without any physics, these courses will satisfy the physical science requirement in colleges of Liberal Arts and Science and the entrance requirement in other colleges. Lab. fee, \$2.50. Five credits a quarter; autumn, winter, spring. Eller.

50-51. *Sound and Music.*—For fine arts students only. Lab. fee, \$2.50. Five credits a quarter; winter, spring. Anderson.

54. *Photography for Amateurs.*—Open to students who have had elementary physics or chemistry. Lab. fee, \$5.00. Three credits; spring. Higgs.

89-90. *Physics of the Home.*—For home economics students. Lab. fee, \$2.50. Five credits a quarter; autumn, winter. Osborn.

97. *Physics for Engineers.*—Mechanics. Prerequisites high school physics or 47-48-49, and fifteen hours of mathematics. Lab. fee, \$2.50. Five credits; autumn, winter or spring. Brakel.

98. *Physics for Engineers.*—Electricity. Prerequisite, Phys. 97. Lab. fee, \$2.50. Five credits; autumn, ~~winter~~ *not given* or spring. Brakel, Anderson, Utterbach.

99. *Physics for Engineers.*—Heat, light. Prerequisite, Phys. 97. Lab. fee, \$2.50. Five credits; autumn, winter, spring. Brakel, Anderson, Utterbach.

101. *Modern Physics Theories*.—Prerequisite, Phys. 3. Five credits; autumn. Anderson.

*102. *Mechanics*.

103. *Heat*.—Prerequisite, Physics 2. Lab. fee, \$2.50. Five credits; winter. Utterbach.

105. *Electricity*.—Prerequisites, Physics 3 and ten hours of mathematics. Five credits; winter. Brakel.

113. *Acoustics and Illumination*.—A course for students in architecture. Prerequisite, Physics 2. Lab. fee, \$2.50. Four credits; spring. Osborn.

114. *Electrical Measurements*.—A course for students in engineering. Prerequisite, courses 97, 98, 99. Lab. fee, \$2.50. Three credits; autumn or spring. *Given winter in place of 98 B* Brakel.

126. *Physics of AC and DC Circuits*.—Prerequisite, Phys. 105. Lab. fee, \$2.50. Five credits; spring. Brakel.

160. *Light*.—Prerequisite, Physics 2, and ten hours of mathematics. Lab. fee, \$2.50. Five credits; spring. Osborn.

169. *Special Problems*.—Students admitted after consultation with instructors. Credit arranged; autumn, winter, spring.

170. *Spectroscopy*.—Prerequisite, Phys. 2 and ten hours of chemistry or astronomy. Lab. fee, \$2.50. Three credits; spring or autumn. Osborn.

*175. *High Temperature Measurements*.

180. *Vibratory Motion and Sound*.—Prerequisite Phys. 102 and calculus. Lab. fee, \$2.50. Five credits; winter. Osborn.

GRADUATE COURSES

201, 202. *Dynamics*.—Three credits; autumn. Two credits; winter. Anderson.

203, 204. *Theoretical Electricity and Magnetism*.—Two credits; autumn. Three credits; winter. *203 for Eller in Winter* Brakel.

206. *Advanced Optics*.—Three credits; spring. Osborn.

209. *Thermo-dynamics and Kinetic Theory*.—Two credits; spring. Utterbach.

210. *Seminar*.—Credits arranged; autumn, winter, spring.

212. *Investigation*.—Credits arranged; autumn, winter, spring.

POLITICAL SCIENCE

Philosophy Hall

PROFESSOR J. ALLEN SMITH; INSTRUCTOR LAUBE

The work in the department of political science is designed to give a scientific account of the activities of the state and of the functioning of the electorate and legislative bodies in determining state action. Some of the courses are planned to give that knowledge of public affairs which ought to be part of a liberal education, while others lead to a special study and inves-

*Not offered in 1922-1923.

tigation of problems and methods in the different branches of the government. The aim is to train the powers of observation and reasoning, to develop correct methods of research, and to apply the knowledge gained to the solution of practical problems.

1. *Elements of Government*.—Introductory course in which special attention is given to the citizen's part in government. Syllabus fee, \$1. Five credits; autumn, winter or spring. Smith

~~50. *Comparative Government*~~.—The constitutional organization of the principle governments of Europe; with emphasis on political parties and current questions. Prerequisite, Pol. Sci. 1. Five credits; winter. Laube *given Spring*

52. *Political Parties*.—Organization and methods of modern political parties; growth and theory of the party system. Prerequisite, Pol. Sci. 1. Three credits; spring. Laube

60. *Public Finance and Taxation*.—Prerequisite, Pol. Sci. 1 and Econ. I. Five credits; autumn. Laube

~~61. *Problems in Taxation*~~.—With special reference to the state of Washington. Prerequisite, Pol. Sci. 60. Three credits; winter. Laube

62. *Municipal Finance*.—Prerequisite, Pol. Sci. 60. Three credits; spring. Laube

100. *Municipal Government*.—Municipal organization and administration in the United States and Europe with some consideration of functions and problems. Prerequisite, Pol. Sci. 1. Five credits; autumn. Laube

102. *Municipal Problems*.—Problems of city government, with special attention to municipal utilities. Prerequisite, Pol. Sci. 1. Three credits; winter. Laube

111. *International Politics*.—Prerequisite, Pol. Sci. 1. Three credits; spring. Laube

120. *Governmental Functions*.—A study of regulation with reference to individual liberty; the individualistic and the socialistic theory of governmental functions; influence of political democracy on state interference. Open to upper division students who have had eight hours in political science, and to graduates. Three credits; autumn. Smith

130. *American Government*.—A general study of the American system of national government. Prerequisite, Pol. Sci. 1. Three credits; winter. Smith

131. *State Government*.—A general study of the American system of state government. Prerequisite, Pol. Sci. 1. Three credits; spring. Smith

150, 151, 152. *Reading Course*.—Discussions based on selected readings in political theory. Prerequisite, junior standing and eight credits in political science. Two credits a quarter; autumn, winter and spring. Smith

181, 182, 183. *Research in Public Finance*.—Prerequisite, Pol. Sci. 60. Two credits a quarter; autumn, winter and spring. Time to be arranged. Laube

201, 202, 203. *Seminar in Political Theory*.—Topic for 1922-1923: Political Decisions of the United States Supreme Court. Two to five credits. For graduates only. Autumn, winter and spring. Smith

NOTE.—For the teachers' course in political science see department of education, Educ. 160-O.

PSYCHOLOGY

Philosophy Hall

PROFESSOR SMITH; ASSISTANT PROFESSOR GUTHRIE; INSTRUCTOR WILSON;
ASSISTANT, MISS WILKINSON

Students in the College of Liberal Arts, as well as the students in the College of Science, may major in psychology.

The Liberal Arts requirements are five credits in psychology.

~~For psychology as prerequisite to education; see announcement of department of education.~~

Majors in psychology may count five hours in Phil. 1, or in 101-102-103 toward satisfying their major requirement.

1. *General Psychology*.—A survey of the science as a whole. No prerequisites. Three lectures, one discussion section, and one 2-hour laboratory a week. Five credits; course repeated every quarter. Wilson, Smith, Guthrie

101. *Physiological Psychology*.—Man's behavior viewed as a result of his neurological mechanism. Students who so desire will be offered an opportunity for individual work in dissection and microscopic study. Prerequisite, Psych. 1. Three credits; winter. Guthrie

106. *Experimental Psychology*.—Students receive training in laboratory methods, are made familiar with the more important kinds of psychological apparatus, and perform many of the classical experiments in psychology. Prerequisite Psych. 1. Three credits; spring. Guthrie

109. *Mental Tests*.—Training in applying tests for intelligence and for mental analysis. The principles of experimental procedure, methods of measurement, the preparation of tests and statistical treatment of results. The course is essential to work in clinical psychology. Prerequisite, ten credits in psychology. Three credits; spring. Wilson

111. *History of Psychology*.—The origin and development of psychology, beginning with the primitive conceptions of mind, and including a comprehensive view of the sources of scientific psychology. Prerequisite, Psych. 1. Two credits; autumn. Guthrie

112. *Modern Psychological Theory*.—A criticism of psychological theories in the light of recent experimental findings. Prerequisite, Psych. 1. Three credits; spring. Guthrie

114. *Current Psychological Literature*.—This course offers each student the opportunity of reading and discussion in the direction of his particular interests, and at the same time makes him familiar with a wide range of subjects treated in recent journals and with the new developments in psychology. Prerequisite, Psych. 1. Two credits; winter. Guthrie

116. *Animal Behavior*.—The mind of animals as shown by their behavior under natural conditions and in the laboratory. Prerequisite, Psych. 1. Three credits; autumn. Wilson

118. *Folk Psychology*.—A psychological study of social human nature, language, custom, public opinion, morals, war, family, caste, nationalism, religion. Prerequisite, Psych. 1. Two credits; autumn. Guthrie

121. *Applied Psychology*.—Psychology as applied to personal efficiency, vocational guidance and the measurements of vocational fitness, scientific management, the psychology of advertising, legal testimony and the mental states affecting its reliability. The significance of sex and individual differences in practical life. Prerequisite, Psych. 1. Five credits; winter. Wilson

124. *Psychology of Learning*.—The principles of learning and the transfer of training. Prerequisite, ten credits in psychology. Two credits; spring. Smith

126. *Abnormal Psychology*.—The explanation of unusual behavior. Prerequisite, ten credits in psychology. ~~Five~~ ^{Three} credits; winter. Guthrie

131. *Child Psychology*.—A study of mental development from infancy to adult age with the purpose of giving the student a scientific understanding of childhood. Prerequisite, Psych. 1. Three credits; autumn. Wilson

132. *Psychology of Exceptional Children*.—The nature and cause of mental defects and peculiarities of children with special reference to methods of diagnosis and to physical pathology. Prerequisite, Psych. 1. Three credits; spring. Smith

151, 152, 153, 154. *Undergraduate Research*.—Prerequisites, course 1 and 106. Each quarter. Smith, Guthrie, Wilson

GRADUATE COURSES

Before a student registers for graduate courses his topic of research must be approved by the department.

201, 202, 203, 204. *Graduate Research*. Smith, Guthrie, Wilson

Seminar.—Open to students doing research in the department. Weekly meetings on Monday evening.

PUBLIC SPEAKING

Denny Hall

(See Dramatic Art)

ROMANIC LANGUAGES AND LITERATURE

Denny Hall

PROFESSORS FREIN, ORR, UMPHREY; ASSOCIATE PROFESSORS PATZER, GOGGIO; ASSISTANT PROFESSORS HELMLINGE, DEVRIES; INSTRUCTORS WHITTLESBY, DE SOLENNI; ASSOCIATES HAMILTON, J. MEROIER; TEACHING FELLOWS, FOSTER, JONES, G. MEROIER.

Students entering with high school credits in French or Spanish will be admitted to classes upon the basis of one high school semester counting as the equivalent of one University quarter. Exceptional cases will be determined by the head of this department.

Students may not begin French 1 and Spanish 1, (nor Italian), during the same quarter, and it is better to have three quarters of one Romanic language before beginning another. If the entrance requirement in foreign language has not been fulfilled, no credits will be given for courses 1, 2, 3, 4, and 7 in any of the Romanic languages. Freshmen and sophomores may enter any advanced course (100 to 200) for which they have the prerequisites.

I. FRENCH

Requirements of the department.—Courses 41, 101, 102, 103, 158, 159, Ed160-T, and at least nine credits in literature are required of majors and those who wish to be recommended to teach.

1-2-3. Elementary.—As much as possible French will be used in the class room. Each of the courses 1, 2, 3, is repeated each quarter. No credits will be given for French 1 until 2 has been completed. Five credits a quarter; autumn, winter, spring.

4, 5, 6. Reading of Modern Texts.—Each of the courses 4, 5, 6, is repeated each quarter. French 4 may be combined with 7, making a five-hour course. The same is true of 5 and 8, 6 and 9. Prerequisite to French 4 is 3, or equivalent. Three credits a quarter; autumn, winter, spring.

7, 8, 9. Grammar and Composition.—These courses must be taken by those who intend to major in French, unless they have already done the equivalent in high school. French 7 may be combined with 4. The same is true of 8 and 5, 9 and 6. Prerequisite to French 7 is 3, or equivalent. Two credits a quarter; autumn, winter, spring.

41. Phonetics.—This course is intended to furnish the student an opportunity to acquire a reasonably correct pronunciation, and to bring more order out of what seems a mass of exceptions. Prerequisite, French 3. Three credits; repeated each quarter. Frein

71, 72, 73 or 111, 112, 113. Scientific French.—For students in science courses; reading in their special lines will be assigned by the head of their department, but the examinations will be given by this department. Credits according to work done.

101, 102, 103. Composition and Conversation.—With each of these courses is offered (at the same hour, but not on the same days) a course in advanced reading under the same instructor. See French 104, 105, 106. Prerequisites, French 6 and 9. Three credits a quarter; autumn, winter, spring. Patzer, Helmlingé, Goggio, De Vries, Whittlesey

104, 105, 106. Advanced Reading.—These courses are planned so that they may be taken with 101, 102, 103. Courses 101 and 104, 102 and 105, 103 and 106 may be taken together as five hour courses. The instructor will give occasional talks in French, upon the authors read, the interesting literary, social and other topics of their day, so as to prepare the student to enter courses given by lectures in French. Prerequisite, French 6. Two credits a quarter; autumn, winter, spring.

Patzer, Goggio, Helmlingé, De Vries, Whittlesey

107, 108. Themes.—Writing of original compositions upon assigned topics. Prerequisite, French 103. Two credits a quarter; winter, spring.

Helmlingé

115, 116, 117. Survey of French Literature.—Lectures in English, and collateral reading of English translations. Those who have studied French sufficiently will be assigned French texts to read. No prerequisites. Three credits a quarter; autumn, winter, spring.

De Vries

121. The French Novel.—Lectures in French on the history of the novel from its beginning. Assigned reading and reports. Prerequisite, French 101 or equivalent. Five credits; autumn.

Patzer.

**124, 125. The Short Story.*

131, 132. Lyric Poetry.—Study of the best lyrics since the fifteenth century with especial emphasis upon the nineteenth century. Rules of versification. Prerequisite, French 104. Three credits a quarter; winter, spring.

Helmlingé.

*Not offered in 1922-1923.

141, 142. *The French Drama*.—Lectures in French on the history of the French drama from its beginning. Assigned reading and reports. Prerequisite, course 101 or equivalent. Five credits a quarter; winter, spring.

Patzer.

151, 152, 153. *History of the French Literature of the Nineteenth Century*.—Lectures in French, and assignments of reading to be done outside of class. Intended to give an opportunity to hear French spoken connectedly, though slowly. Students may enter at the beginning of any quarter. Prerequisite, French 6 and 9, or equivalent. Two credits a quarter; autumn, winter, spring.

De Vries.

158, 159. *Advanced Syntax*.—A study of French syntax from the teacher's standpoint. These courses are prerequisite to the teachers' course. Prerequisite, French 103. Two credits a quarter; autumn, winter.

*161, 162. *History of the French Literature of the Eighteenth Century*.

*171. *History of the French Literature of the Seventeenth Century*.

GRADUATE COURSES

201, 202, 203. *Middle and Sixteenth Century*.—The masterpieces of the fourteenth, fifteenth and sixteenth centuries will be read, and their influence upon later French literature studied. Open to graduates and seniors who have studied French at least four years. Two credits a quarter; autumn, winter, spring.

Frein.

210, 211, 212. *French Criticism*.—Exposition of the several theories by which French critics have tested literature. Prerequisite, a good knowledge of French or English literature. Course given in English. Two credits a quarter; autumn, winter, spring.

De Vries.

221, 222, 223. *Old French Readings*.—One of the most helpful courses for teachers of French. Open to graduates and seniors who have studied French at least four years. Three credits a quarter; autumn, winter, spring.

221 given by Frein - winter

Goggio.

231, 232, 233. *History of Old French Literature*.—Lectures and assigned readings. Open only to those who can read Old French. Three credits a quarter; autumn, winter, spring.

Frein.

*241, 242, 243. *French Historical Grammar*.

NOTE—For teachers' course in French, see department of education, Educ. 160.T.

II. ITALIAN

Requirements of the department: No student will be allowed to begin Italian and French or Spanish the same year. Beginning with 1923-1924 enough courses will be offered for a major in Italian.

1-2-3. *Elementary*.—No credit will be given for Ital. 1 and 2 until course 3 has been completed. Five credits a quarter; autumn, winter, spring.

Goggio.

107, 108, 109. *Modern Italian Literature*.—Prose and poetry of the eighteenth and nineteenth centuries. Lectures and collateral reading. Composition. Prerequisite, Ital. 3. Two to five credits a quarter; autumn, winter, spring.

Goggio.

*121, 122, 123. *The Italian Novel*.

181, 182. Dante.—In this course the Divine Comedy of Dante will be read and studied with the purpose of bringing out the character of the imaginative and philosophical ideas contained in it, and the relations of these ideas to medieval thought. Knowledge of Italian not necessary. Two credits a quarter; autumn and winter. Goggio.

184. Renaissance Literature of Italy.—In this course stress will be laid upon the works of Petrarch and Boccaccio especially, and on those of Machiavelli, Castiglione, Ariosto, Cellini, and Tasso. Lectures in English and collateral reading. Knowledge of Italian not necessary. Two credits; spring. Goggio.

GRADUATE COURSE

201. Research in Italian Literature.—For graduates only. The number of credits will be determined by the amount of work done. Goggio.

III SPANISH

Requirements of the department: Span. 159, 101, 102, 103, Educ. 160. u, and at least 9 credits of literature are required of majors and of all who wish to be recommended as teachers. Freshmen and sophomores may enter any course for which they have the prerequisites.

1-2/3. Elementary.—No credit will be given for course 1 until course 2 has been completed. Each of the courses 1, 2, 3 is repeated each quarter. Five credits a quarter; autumn, winter, spring.

4, 5, 6. Reading of Modern Authors.—Reading of some of the best works of the nineteenth century. If desired, courses 4, 5, 6 may be combined with 7, 8, 9 making a five-hour course each quarter. Prerequisite to 4 is 3, or equivalent. Three credits a quarter; autumn, winter, spring.

7, 8, 9. Grammar, Composition, Conversation.—These courses may be combined with courses 4, 5, 6, making a five-hour course. Prerequisite to Span. 7 is 3. Course 7 is prerequisite to 8. Two credits a quarter; autumn, winter, spring.

101, 102, 103. Advanced Composition.—Prerequisite, Span. 9. Three credits a quarter; autumn, winter, spring. Goggio.

112. Commercial Spanish. Commercial terms and business correspondence. Prerequisite, Span. 9, five credits; spring. Solenni.

115. Survey of Spanish Literature.—Selected texts, collateral reading, lectures. Prerequisite, Span. 6. Five credits; spring. Umphrey.

***121, 122, 123. The Novel.**

***131, 132. Lyrics and Ballads.**

141, 142, 143. Drama.—A systematic study of the drama in Spain, from its beginnings. The autumn quarter covers the early period and the sixteenth century; the winter quarter the Golden Age; the spring quarter the nineteenth century and early twentieth. Representative plays are read in class, others are assigned for outside reading and reports. Prerequisite, Span. 6. Three credits a quarter; autumn, winter, spring. Umphrey.

159. Advanced Syntax.—Problems in syntax studied from the teacher's standpoint. Prerequisite, Span. 101, 102. Three credits; spring. Ober.

*Not offered in 1922-1923.

184, 185, 186. *Spanish American Literature*.—Representative writings of Spanish American authors. Collateral reading and reports. Lectures. Prerequisite, Span. 6. Two credits a quarter; autumn, winter, spring. Umphrey.

GRADUATE COURSES

221. *Old Spanish Readings*.—Reading and linguistic study of the Poema de mio Cid and other old Spanish texts. Five credits, autumn. Umphrey.

231. *Epic Poetry*.—Study of the epic material in Old Spanish literature and its later treatment in poetry and drama. Topics are assigned for special investigation and report. Five credits; winter. Umphrey.

241. *Spanish Historical Grammar*.—Five credits; spring. Umphrey.

NOTE:—For teachers' course in Spanish, see department of education, Educ. 160-U.

For courses in Comparative Philology, see the department of Scandinavian Languages and Literature.

SCANDINAVIAN LANGUAGES AND LITERATURE

Denny Hall

PROFESSOR VICKNER

1-2-3. *Elementary Swedish*.—Grammar and reading; composition and conversation. Course, 1, 2, 3, are so arranged that they may be taken with 4, 5, 6 making a five-hour course. Three credits a quarter; autumn, winter, spring. Vickner.

4-5-6. *Swedish Reading Course for Beginners*.—Reading of easy texts. Supplementary to courses 1, 2, 3, but may also be taken separately by students desiring a reading knowledge of Swedish with a minimum of grammatical study. No previous knowledge of Swedish necessary. Especially adapted to meet the needs of students in the Colleges of Science, Education, Business Administration, and Library School. Two credits a quarter; autumn, winter, spring. Vickner.

10-11-12. *Elementary Norwegian-Danish*.—Grammar and reading; composition and conversation. Courses 10, 11, 12, are so arranged that they may be taken with 13, 14, 15, making a five-hour course. Three credits a quarter; autumn, winter, spring. Vickner.

13-14-15. *Norwegian-Danish Reading Course for Beginners*.—Reading of easy texts. These courses are supplementary to 10, 11, 12, but may also be taken separately by students desiring a reading knowledge of Norwegian-Danish with a minimum of grammatical study. No previous knowledge of Norwegian-Danish necessary. Especially adapted to meet the needs of students in the Colleges of Science, Education, Business Administration and Library School. Two credits a quarter; autumn, winter, spring. Vickner.

20-21-22. *Norwegian-Danish Literature*.—Representative authors are read in connection with a survey of the Norwegian-Danish literature. Prerequisite, ability to read easy Norwegian-Danish. May be entered at the beginning of any quarter. Two credits a quarter; autumn, winter, spring. Vickner.

23-24-25. *Swedish Literature*.—Representative authors are read in connection with a survey of the Swedish literature. Prerequisite, ability to read easy Swedish. May be entered at the beginning of any quarter. Two credits a quarter; autumn, winter, spring. Vickner.

40, 41, 42. *Great Scandinavian Writers in English Translation*.—The reading and discussion of significant works of recent Scandinavian litera-

ture; papers; lectures on the social, political and cultural life of Scandinavia. May be entered at the beginning of any quarter. Five credits a quarter; autumn, winter, spring.

103, 104, 105. *Recent Swedish Writers*.—Representative writers of the nineteenth and twentieth centuries are read, including Strindberg, Fröding, Selma Lagerlöf. Study of cultural movements and social problems of modern Sweden. May be entered at the beginning of any quarter. Two credits a quarter; autumn, winter, spring. Vickner.

106, 107, 108. *Recent Norwegian-Danish Writers*.—Representative writers of the nineteenth and twentieth centuries are read, including Ibsen, Björnson, Kielland, Jacobsen, Drachman. Study of cultural movements and social problems of modern Norway and Denmark. May be entered at the beginning of winter or spring quarter. Two credits a quarter; autumn, winter, spring. Vickner.

109, 110, 111. *Study of Modern Scandinavian Authors in English Translation*.—A study of Ibsen, Björnson, Strindberg and Selma Lagerlöf the main feature of the course. A brief survey of Scandinavian culture and literature. Open to all. No knowledge of the Scandinavian languages necessary. May be entered at the beginning of winter or spring quarter. One credit a quarter; autumn, winter, spring. Vickner.

180, 181, 182. *Recent Scandinavian Literature in English Translation*.—The principal writers of recent Scandinavian literature will be read with special attention to literary and social movements and to the interrelation of English and Scandinavian literature. Lectures, reports, and discussion. For advanced students. May be entered at the beginning of any quarter. Two credits a quarter; autumn, winter, spring. Vickner.

*201-202. *Old Norse, Scandinavian and Comparative Philology*.

*203. *History of the Swedish Language*.

*205-206. *Scandinavian Literature in the Nineteenth Century*. Vickner.

*209. *History of Scandinavian Literature*. Vickner.

COMPARATIVE PHILOLOGY

190-191. *Introduction to the Science of Language*.—A study of the general principles of linguistic development with special reference to English. Lectures and discussions. Prerequisite, some knowledge of one of the classical languages and of one modern foreign language or Old English. Two credits a quarter; autumn, winter. Vickner.

192. *Life of Words*.—Etymology and semasiology; growth of vocabulary; word values. Lectures, discussions and exercises. Prerequisites; same as for courses 190-191. This course is a continuation of 190-191, but may be taken separately. Two credits a quarter; spring. Vickner.

SOCIOLOGY

Philosophy Hall

PROFESSOR WOOLSTON; ASSOCIATE PROFESSOR MCKENZIE; ASSISTANT PROFESSOR SPIER; ASSOCIATE, MCCABE

Sociology treats of the development, organization and functions of human groups. Its general purpose is to explain the relations of institutions;

*Not offered in 1922-1923.

final credit given for any course above 100

to stimulate a critical and constructive attitude toward programs of reform and to furnish a sound basis of information for intelligent citizenship. Its practical outcome lies in preparation for advanced study, field investigation, teaching and administration in such lines as community and industrial welfare, law, diplomacy, journalism, public health and institutional management; and also in supplementing the specialized training along such lines.

Sociology is related to many problems treated in biology, psychology, history, economics, politics, education, home economics, literature and philosophy. Students choosing sociology as a major or minor subject are urged to consult members of the department staff regarding their elections. Work in other departments may be essential for success in this field, and may, when approved, be credited toward advanced requirements.

The following basic and supplementary courses are particularly recommended:—Math. 13, Zool. 16, 17, Psych. 109, 118, Home Econ. 109, 126, Econ. 61, 161, 162, 166, Pol. Sci. 100, Hist. 131, 149, English 73, 74, 75, 136, 137, 138, 141, 142, 164, 165, 166, Phil. 2.

Students are advised to postpone work in sociology until lower division requirements in biology, psychology, economics, and political science are completed. *Sociology 1 or its equivalent is prerequisite throughout, and satisfies minimum requirements in this subject. The following are fundamental for advanced work and should be taken by major students before electing special lines:* Courses 29, 52, 55, 56, 60.

Further work is arranged along these lines:

- (1) Anthropology deals with the history of civilizations and its applications to race problems.
Courses 51 and 52 present a general foundation: course 101 is a systematic upper division introduction.
Suggested elections: course 92 for history students, 141 for English, 143 for fine arts, and 163 for biological sciences.
- (2) Social Problems and Methods of Reconstruction offers prevocational instruction leading to three general lines of social work, for which the following courses are especially recommended:
 - A. Case Work: courses 57, 58, 155, 171-172-173.
 - B. Institutional Methods: courses 61, 156, 157.
 - C. Community Organization: courses 58, 62, 63, 105, 160, 182.
- (3) Social Theory and Methods of Investigation offers preliminary training and background for vocational use as follows:
 - A. Teachers of Social Science: courses 150, 170, 161, 181.
 - B. Social Investigation: courses 29, 60, 130, 163.

For a major in sociology 36 credits are required. Upper division courses should not be elected before completing such elementary work as instructors in special fields may suggest. Courses numbered over 200 are primarily for graduates. Qualified seniors may be admitted by permission of the instructor in charge. Advanced students are required to secure the approval of their program by the head of this department before completing their registration. Graduate students must complete undergraduate requirements before being accepted as candidates for the master's or doctor's degree in sociology.

COURSES

1. *Introductory Sociology.*—A general survey of the field of social relations, with some discussions of the forces at work, the practical problems presented and the methods of solution suggested. Required of all students in the department. Five credits; autumn, winter, spring.

I. ANTHROPOLOGY

51. *Growth of Culture*.—The origin and development of social institutions, industrial activities, and arts. Basic to courses in anthropology. Five credits; autumn, winter. Spier.

52. *Primitive Social Life*.—The social institutions and folkways of primitive peoples. Five credits: winter, spring. Spier.

92. *Peoples of Europe and Africa*.—Racial types and languages of the Old World; origins of historic cultures; the background of American immigrants. Suggested for history students. Three credits; winter. Spier.

*93. *Peoples of Asia and Oceania*.

101. *Basis of Civilization*.—Factors that determine the growth of civilizations, as illustrated by the North American Indians. Five credits; autumn. Spier.

141. *Folk-tales*.—A study of unwritten literature; the spread of stories and cycles; historic and Freudian theories of origin. Suggested for English students. Three credits; spring. Spier.

143. *Origins of Art*.—Factors in the development of art styles, from the standpoint of beginnings. Suggested for fine arts students. Three credits; autumn. Spier.

163. *Anthropometry and Biometrics*.—The study of the growth of children; racial and social influences; application of statistical methods to biological phenomena. Methods of physical examination; standards of efficiency in measurements. Two credits; spring. Spier.

190. *Undergraduate Research*.—Credits and hours to be arranged. Spier.
{ combined with 204 for 2 cr. for fall sem.

GRADUATE COURSES

204, 205, 206. *Anthropological Methods and Theories*.—Analysis of culture; historical and psychological methods; theories of culture growth. Open to qualified seniors. Each quarter may be taken separately. Three credits a quarter; autumn, winter, spring. Spier.

II. SOCIAL PROBLEMS AND SOCIAL RECONSTRUCTION

55. *Community Organisation*.—A study of the principles of community organization, forms of community action, essentials of leadership. Five credits; autumn. McKenzie.

56. *The Family*.—The origin of marriage, the family and its status, the effects of the industrial revolution, and the functions of the modern family. Three credits; autumn, winter. Aimee McCabe.

57. *Child Welfare*.—A study of the biological, psychological, social, and economic factors bearing on the welfare of children in modern society. Three credits; winter, fall. Aimee McCabe.

58. *Neighborhood Resources*.—A study of national, state and local organizations which deal with practical social problems; e. g., The Children's Bureau, American Red Cross, National Federation of Settlements, Community Service. Three credits; spring. Aimee McCabe.

*61. *The Church as a Social Agency*.

first cr. given for any course above 100

62. *Public Recreation*.—Organization of indoor and outdoor amusement; public morality and the use of leisure. Three credits; winter.

McKenzie.

63. *Municipal Sociology*.—A study of the social conditions and problems of modern social life in American cities, and a discussion of the various agencies developed to deal with them. Five credits; spring.

McKenzie

*103. *Problems of Maladjustment*.

*104. *American Social Conditions*.

*105. *Industrial Welfare*.

155. *Poverty and Philanthropy*.—Care of dependents and prevention of destitution; discussion of causes of poverty and methods of relief. Prerequisite, Econ. 1. Five credits; autumn.

McKenzie.

156. *Criminology*.—A study of the social, economic, and hereditary causes of crime; various theories and plans of prison reform; the relations of prisons and criminals to society. Five credits; winter.

McKenzie.

157. *Social Pathology*.—A study of the social factors involved and the methods of dealing with physical defectiveness, feeble-mindedness, insanity, narcotics, alcoholism, prostitution, vagrancy. Five credits; spring.

McKenzie.

160. *Programs of Social Reform*.—A critical examination of individualism, conservation, philanthropy, social justice, liberalism, unionism, the co-operative movement, the single tax, socialism and syndicalism. Three credits; autumn.

Woolston.

171-172-173. *Methods of Social Service*.—Field experience under supervision at local social work organizations. Eight hours field work, one hour conference. Permission of instructor necessary for registration. Prerequisites, Soc. 56, 57, 155. Five credits; autumn, winter, spring.

McCabe.

may be counted as lab. course & divided into 3 cr. (lab.) or (lectures) for reading.

GRADUATE COURSE

211-212-213. *Case Work Principles and Practice*.—A training course for social work. Eight hours field work, one hour conference. Permission of instructor necessary for registration. Prerequisites, Soc. 171-172-173. Five credits a quarter; additional credit by special arrangement. Autumn, winter, spring.

McCabe.

III. SOCIAL THEORY AND METHODS OF INVESTIGATION

29. *Social Statistics*.—Methods and sources for quantitative investigation. Prerequisite, Math. 13. Three credits; winter.

60. *Group Behavior*.—The instinctive and reflective side of man, and his adjustments to civilization. Prerequisite, Psych. 1. Three credits; autumn.

Woolston.

(130.) *The Social Survey*.—Methods of planning, conducting, and presenting results of investigations of communities and institutions. Three credits; winter.

McKenzie.

150. *General Sociology*.—Advanced course in theory for seniors and graduates. Mature students may substitute this work for Soc. 1 upon personal approval by the instructor. Five credits; autumn.

Woolston

161. *Theories of Social Progress*.—A discussion of the factors involved in improving society and an estimate of their efficiency. Three credits; winter. Woolston.

*162. *Social Ideals*.

170. *History of Social Theory*.—The principal contributions to sociological science, from the standpoint of their background. Five credits; winter. Woolston.

181. *Psychology of Nations*.—An examination of the bases and characteristic manifestations of national traits. Prerequisite, Soc. 60. Three credits; spring. Woolston.

182. *The Urban Habit of Mind*.—A study of typical reactions shown by city-dwellers. Prerequisite, course 60. Three credits; winter. Woolston.

GRADUATE COURSES

207-208-209. *Community Research*.—Original investigation of special community problems. Emphasis will be placed upon methodology and the interpretation of data. Prerequisite, graduate standing or special permission. Two credits a quarter; autumn, winter, spring. McKenzie.

221-222-223. *Seminar*.—For graduate students who are candidates for higher degrees and for approved major students in the department, when recommended by an instructor in charge of their special work. The purpose is to train in methods of original research and investigation. Two credits; autumn, winter, spring.

ZOOLOGY

Science Hall

PROFESSOR KINCAID; ASSISTANT PROFESSORS E. V. SMITH, GUNTHERP, JAMESON

✓ 1-2. *Elements of Zoology*.—A general review of zoological science, stressing the philosophic and economic aspects of the subject. Lab. fee, \$2.50. Five credits a quarter; autumn, winter, repeated winter, spring. Kincaid, Gunthorp and assistants.

✓ 3-4. *Pre-Medical Zoology*.—For students entering upon a medical course. Lab. fee, \$2.50. Five credits a quarter; autumn, winter. Jameson

✓ 10-11. *Comparative Anatomy*.—The comparative structure of the vertebrate animals. Prerequisite, Zool. 1-2 or 3-4. Lab. fee, \$2.50. Five credits a quarter; autumn, winter. Jameson

16. *Evolution*.—A series of lectures upon the more important biological problems related to the general theory of evolution. Two credits; autumn. Kincaid.

17. *Eugenics*.—The principles of evolution in their relation to human welfare. Two credits; spring. Kincaid.

103. *Ecology*.—The adaption of animals to their environment. Prerequisite, Zool. 1-2. Lab. fee, \$2.50. Five credits; spring. Gunthorp.

101. *Cytology*.—The anatomical, physical and chemical properties of the animal cell with special reference to the problems of development and inheritance. Prerequisite, Zool. 1-2 or 3-4. Lab. fee, \$2.50. Five credits; autumn. Gunthorp.

*Not offered in 1922-1923.

51
 56. *Entomology*.—The structure, classification and economic relations of insects. Prerequisite, Zool. 1-2 or its equivalent. Lab. deposit, \$2.50. Five credits; spring. Kincaid.

105. *General Embryology*.—The comparative developmental history of animals, with emphasis on vertebrate forms. Prerequisite, Zool. 1-2 or 3-4. Lab. fee, \$2.50. Five credits; spring. Jameson.

106. *Plankton*.—The classification, adaptations and interrelationships of the microscopic fauna of the sea. Field work in Puget Sound. Prerequisite, Zool. 1-2. Lab. fee, \$2.50. Five credits; autumn. Kincaid.

107. *Parasitology*.—A study of animal parasites. Prerequisite, Zool. 1-2 or 3-4. Lab. fee, \$2.50. Five credits; spring. Jameson.

108. *Aquatic Biology*.—The classification and interrelationship of the organisms found in lakes and streams. Field work in the neighboring freshwater bodies. Prerequisite, Zool. 1-2. Lab. fee, \$2.50. Five credits; spring. Kincaid.

155-156-157. *Elementary Problems*.—Students will be assigned minor problems which will be worked upon under the direction of one of the instructors in the department. Prerequisite, twenty hours in zoology or physiology. Lab. fee, \$2.50. Three credits; autumn, winter, spring. Kincaid, Smith, Gunthorp, Jameson.

GRADUATE COURSE

201-202-203. *Research*.—Students capable of carrying on independent work will be assigned problems to be worked upon under the direction of one of the instructors. Prerequisite, twenty-five hours of zoology. Credit Kincaid, Gunthorp, Jameson.

NOTE.—For teachers' course in zoology, see department of education. Educ. 160-Z.

PHYSIOLOGY

7-7-7. *Elementary Physiology*.—A general survey of the structure and functions of the human body, with special emphasis on metabolism, and the nervous and vascular systems. Lab. fee, \$2.50. Five credits; autumn, winter, spring. Smith.

54-55. *Physiology*.—A course adapted to meet the need of students expecting to teach the subject in high school. Required of students majoring in physical education; recommended for students in dietetics and in sanitary science. Lab. fee, \$3. Five credits; autumn, winter. Smith.

115. *Principles of General Physiology*.—The application of the laws of physics and chemistry to physiological processes. Prerequisites, one year each, zoology, chemistry and physics. Lab. fee, \$3. Five credits; spring. Smith.

151-152-153. *Advanced Physiology*.—Arranged for students in medicine and advanced students who wish to make a careful study of experimental methods. Prerequisites, one year each, zoology, chemistry and physics. Lab. deposit, \$3. Five credits; autumn, winter, spring. Smith.

GRADUATE COURSE

204-205-206. *Research*.—Students capable of carrying on independent work will be assigned problems for investigation. Prerequisites, twenty-five hours of zoology or physiology. Credit to be arranged. Smith.

SUMMER QUARTER

JUNE 20-AUGUST 31, 1922

FREDRICK E. BOLTON, Ph.D.DIRECTOR

Facilities.—The summer quarter is an integral part of the university year and its courses coordinate with the other quarters. It thus offers especial opportunities for teachers and others whose regular work is suspended during the summer months.

By the four-quarter plan regular students will be able to take their vacations during any quarter of the year, or by attending the four quarters each year they may complete their college course in three years. Regular work will be offered in the Colleges of Liberal Arts, Science, Fine Arts, Business Administration, the Graduate School, Schools of Education and Law, and in the Pre-medical Course. The Puget Sound Biological Station at Friday Harbor maintains a session of six weeks beginning June 19 and ending July 28. The laboratories, libraries and museum are open and the various departments offer both undergraduate and graduate work equal in quality to that maintained during the rest of the year. In most departments three grades of work are offered: (a) courses for beginners in the subject, (b) courses for advanced undergraduates, and (c) courses for graduate students. In a very large number of cases, heads of departments are in charge of the work. In addition to regular members of the faculty several prominent teachers from outside the University give courses.

For whom intended.—In addition to the regular undergraduate work in the various colleges exceptional opportunities are afforded for the following classes of persons:

1. College and university graduates who wish to specialize in some particular field or to work for advanced degrees.
2. Superintendents and principals who wish to acquaint themselves with recent progress in education or to study special problems.
3. High school teachers who wish to advance in their special lines of work.
4. Supervisors and teachers of music, domestic science, drawing and other special fields of work, who will find many courses suited to their needs.
5. School teachers who wish to work toward college degrees.
6. Directors of gymnasiums and teachers of physical education and playground work. The university campus offers unusual opportunities for playground demonstration, and special emphasis will be placed on this important phase of education. The city of Seattle and the public schools afford splendid objective illustrations of playground and recreation centers.
7. Undergraduates who for some good reason find it desirable to shorten the period of their college course.
8. Recent high school graduates who expect to enter the University in the fall who wish to get in touch with the University before that time. High school pupils find this a very advantageous plan.
9. Persons desiring training in child welfare work, social workers, Y.M.C.A. and Y.W.C.A. directors and teachers.
10. County superintendents who desire to study problems of rural school organization and social center and community center work.
11. Candidates for certificates who need special courses in education and psychology or other subjects.
12. Persons who are preparing to become specialists in college and normal school positions.
13. Persons who desire practical field work in botany, geology and zoology in a region possessing unique facilities.
14. Students who wish regular courses in law or special courses in law in preparation for teaching the commercial branches.

Registration.—Registration for the summer quarter will take place on Tuesday, June 20. Students expecting to be in attendance during the last six weeks only may register on or before Friday, July 28. Students should go first to Administration hall, where notices will be posted giving the order of procedure in registration.

Students desiring to be enrolled in any college or school of the University will be assigned by the registrar to the deans of the respective divisions for assistance in making out their election of studies; those not intending, at the time, to become candidates for graduation will be assigned to the director of the summer quarter.

Admission.—The courses of the summer quarter are open to all persons eligible for admission to the University as either regular, unclassified or special students. As far as possible, all credentials for prospective students and applications for admission as special students should be in the hands of the registrar before the opening of the session.

Credits.—Students desiring university credit will be required to pass the examinations given during the closing week of each term. A maximum of nine quarter hours of credit may be obtained during each term.

Persons who expect to be candidates for any degree or the normal diploma at the close of the quarter should make application through the registrar on registration at the beginning of the session.

Fees.—The regular tuition fee of twenty dollars (\$20) is required of all students, and admits to all the privileges of the summer quarter, except certain laboratory courses and to special music courses requiring individual instruction. See the statements of these courses for the special fees. No reduction of fees will be made because of late registration or early withdrawal. Open lectures are free to all students regularly registered in the summer quarter and also to the public.

Masters' Degrees Through Summer Quarters.—At each succeeding summer quarter a larger number of graduate students are in attendance. Last summer more than a third of the whole number of attendants were graduate students. Many were planning definitely to apply their work toward higher degrees. The University will accept 36 credits earned during at least 30 weeks of residence in summer quarters as a fulfilment of the year of required residence, provided the student does work between the sessions under regulations prescribed by the graduate faculty and the department concerned.

Correspondence Courses.—The University has established correspondence courses in many departments. These will be of special advantage to students who have been in attendance at summer quarters and who wish to go forward to the bachelor's degree. The correspondence work can be very advantageously planned as a continuation of the regular summer quarter. For detailed information concerning correspondence courses write to the Extension Service.

Education.—The summer quarter and the School of Education stand in very close relations to each other. Doubtless a large number who plan to secure a degree, or a normal diploma, through the School of Education will accomplish much in summer quarters. The work of the summer quarter being especially arranged for teachers will make it possible to accomplish this.

Business Administration.—An interesting curriculum of business courses is offered in the summer quarter for students who contemplate going into business. These courses will be along lines of business organization, corporation, finance, employment management, and kindred subjects. Teachers of commercial subjects will also find subjects of special importance in preparation for their work.

For bulletin of the summer quarter address the Registrar, University of Washington. For other information address Frederick E. Bolton, Director of the Summer Quarter.

PUGET SOUND BIOLOGICAL STATION

FRIDAY HARBOR, WASHINGTON

June 19-July 28, 1921

THEODORE CHRISTIAN FRYE, Ph.D. DIRECTOR

Station and Surroundings.—The Puget Sound Biological Station is situated in a sheltered bay near the town of Friday Harbor, the county seat of San Juan County, with a population of approximately 700. It is between Bellingham and Victoria, about 25 miles from the former and about 20 miles from the latter.

San Juan County consists of an archipelago of about 100 islands separated by channels cut by glacial action. The northern islands of the county are composed of sandstone, comparatively easily eroded, and wearing into potholes and peculiarly pocketed walls. In the sandstone are occasional beds of fossils, notably on the Sucia Islands. On Waldron Island and the Sucia Islands the sandstone has been cut for paving blocks for city streets.

Some of the islands are partly limestone, notably the north end of San Juan and the west side of Orcas. The largest lime works in Washington is at Roche Harbor, at the northwest corner of San Juan Island. However, comparatively little of the shore line of the archipelago is limestone.

Most of the islands are composed of metamorphic rock, which is very resistant to weathering and therefore changes very little. This is one of the reasons for the remarkable wealth of fauna and flora. Here and there are beaches of glacial material, or of sand, or flats of mud. There are no large streams on the islands, and therefore the water is exceptionally free from river detritus. Through the channels between the islands the tides rush at times with a velocity of seven to ten miles an hour, filling and again draining the Gulf of Georgia. This gulf is a body of water roughly 100x20 miles, and the spring tides are about twelve feet. The channels in the Friday Harbor region are the chief points of entrance and escape for this immense volume of water. Thus the rocky points are swept clean from erosion deposits, the water is constantly aerated and changed, and a good habitat for water forms insured. Some of the channels are over 100 fathoms deep, thus affording opportunity for the study of forms of life to a considerable depth. Those who have been at the station have again and again attested to the abundance of marine life. A 12-foot tide exposes a wide beach, and gives excellent opportunity for the study of shore life.

The site of the station is on a steep, rocky hillside, forested with conifers. The land was donated by Mr. Andrew Newhall, and is about a quarter of a mile from the village. A road runs through the grounds to the village. The village contains about a dozen stores, and any ordinary purchases may be made there.

The University of Washington also owns 485 acres about one mile from the present site, and expects to move there when suitable buildings have been erected.

Building and Equipment.—The zoological laboratory was built in the spring of 1910. It is about 30x60 feet, two stories and attic. The building is just above high tide on a steep shore. Material can therefore be landed from a small floating dock anchored to the pillars of the laboratory itself. On the first floor are laboratory tables and stock room. The attic is a general store-room and drying loft. A dark room is fitted up for photography. Both fresh and salt water are piped to all parts of the building.

The botanical laboratory was built as a part of the dining hall in the spring of 1913. It has fresh water piped into it, and there is a dark room adjacent.

Compound microscopes are taken up from the University of Washington; some general glassware is supplied. Certain ordinary glassware, con-

tainers, and preservatives may be secured at the stock room. It is the aim to have in the stock room things ordinarily called for. Unusual things cannot be supplied. Those wishing special apparatus should write the director. Usually the station hires a shrimp trawler for one month. Rowboats are on hand for general use.

Supply Departments.—A supply department has been established for the purpose of providing material for class use and for investigators at the station; also for supplying museums and schools with zoological and botanical material for their exhibits or classes. A price list will be furnished on application to the Director of the Station. Those who attend the station may have a reasonable amount of material for their own laboratories put up at very nearly cost. This will permit scientists to put their whole time on class work investigation. Those who are looking forward to collecting material should first correspond with the station authorities. Scientists are urged to co-operate with the station in its endeavor to earn part of its running expense through its supply department.

Library.—The library contains about 800 volumes, of which about 190 are bound volumes of reprints. A limited number of books are shipped to the station every summer from the University.

Lectures.—General lectures by the station staff or by visitors are given as the occasion arises.

Registration.—Experience has shown that it is wise to register for one full course only. Six weeks is a very short time to give to any course, even though one's whole time be put on the work. Advanced students have found it profitable to begin some line of investigation in the same field in which they are carrying a course.

Credit.—Students giving their whole time to the work may earn one semester-credit or one and one-half quarter-credits per week.

Expenses.—For one person for six weeks the cost is about as follows:

Station fee -----	\$12.00
Laboratory fee -----	3.00
Tent, two in a tent -----	4.50
Board (estimate) -----	33.00
Books (estimate) -----	3.50
Incidentals (estimate) -----	4.00
Total -----	\$60.00

The Station fee of \$12 goes toward paying the running expenses of the station. For persons occupying research rooms the station fee is \$50, instead of \$12.

The tents are 10x12 feet, on board platforms with three-foot board wall, making the lowest part about five feet. They are rented during the season for \$1.50 per week per tent, including bed springs, mattresses, lamp, broom, camp chairs, buckets, wash basins, and drinking cups. During the time before and after the session the rental is \$1 a week. Stoves may be rented for \$1.50 for the season. Bedclothes and pillows are not furnished, although they may be bought at the village. Persons coming to the station should bring a sufficient supply of bedding for cold nights. The whole lodging system is merely self-supporting over a term of years.

Meals are served in the dining hall at six dollars a week. The service is merely self-supporting over a term of years, and as nearly co-operative as the conditions permit. The dining hall is about 75 feet above the sea level, and commands a splendid view of channels and islands in the foreground, with Mount Baker lifting its ice-covered peak 12,000 feet high in the distance.

For bulletin of the Puget Sound Biological Station address the Registrar, University of Washington. For other information address T. C. Frye, Director of the Puget Sound Biological Station.

UNIVERSITY EXTENSION SERVICE

OFFICERS OF ADMINISTRATION AND INSTRUCTION

HENRY SUZZALLO, Ph.D. (Columbia), LL.D., (California)President of the University
JOHN THOMAS CONDON, LL.M., (Northwestern)Dean of Faculties
EDWIN AUGUSTUS START, A.M., (Harvard).....Director of the Extension Service

ADMINISTRATIVE BOARD

DIRECTOR START, CHAIRMAN

DEAN THOMSON, Liberal Arts
DEAN LANDES, Science
DEAN BOLTON, Education

DEAN MILLER, Business Administration
PROFESSOR RAITT, Home Economics
COMPTROLLER CONDON

THE FACULTY

The Extension faculty is composed of members of the general faculty who give extension courses and of the following instructors on the Extension staff:

AILETTA MARIA GILLETTE, A.B., (Smith), A.M., (Washington)Instructor in English
JAMES M. MCCONAHEY, LL.B., (Northwestern), C.P.A.....Lecturer in Accounting
WILLIAM HENDERSONLecturer in Foreign Trade
EMUEL J. FORMANLecturer in Water Transportation

OFFICE STAFF

MARY C. GRADYOffice Manager
CORINNE B. BABCOOKSecretary in charge of Seattle City Office
EDNA HINDMAN, A.B., (Washington)Secretary for Correspondence Study
HARRIETTE R. BAILEYStenographer

OFFICES

The general offices of the Extension Service are on the University campus, in a small building devoted exclusively to their use. It is the third building on the right from the Fortieth Street entrance.

A city office is maintained in the Henry Building, in the heart of the business district of Seattle.

THE EXTENSION SERVICE

The Extension Service of the University of Washington (known as the Extension Division until 1917) was organized in 1912, as an integral part of the University to promote and administer its work outside the campus. At the present time its field embraces university teaching by correspondence and in classes for those who cannot attend the University.

DIVISION OF INSTRUCTION

Extension teaching is primarily for adults and for those who cannot attend the University. Many of the subjects offered may be taken for credit toward a university degree, but this is a secondary object, the primary one being to make university instruction available to as many persons as possible who could not otherwise obtain it.

This teaching is carried on by correspondence, which is available to anyone, anywhere, at any time; and by classes conducted at different places.

Correspondence courses are offered in the departments of botany, classical languages and literature, (Greek, Latin), economics and business administration, education, English, geology, history, home economics, navigation, philosophy, political science, psychology, Romanic languages and literature (French, Italian, Spanish), sociology, and zoology.

Class work is offered in Seattle, and in other cities as far as practical, in many of these departments and in some others. Both lists are subject to change from time to time, as courses are added or withdrawn.

The greater number of the extension courses parallel the resident university work and may be taken by qualified persons for credit toward a university degree. Some are planned to meet vocational needs of those who have no university degree in view.

Announcements of the Extension Service are published in bulletins issued at intervals of one or two months.

In Seattle the Extension Service maintains a city office and downtown classrooms, where a program of classes in various subjects is annually carried on. This schedule varies somewhat from year to year but usually includes general economics, accounting (three full year courses), advertising, business correspondence, business law, employment management, foreign trade, water transportation, English, French, Italian, Spanish, subjects in home economics, philosophy and psychology.

Extension classes have been conducted in Aberdeen, Bellingham, Everett, Hoquiam, Olympia, Spokane, Tacoma, and Yakima. On account of time and distance it has not been possible to develop this work on the same basis of permanence and regularity as that in Seattle, but as much is done as possible and any real local demand is generally met.

Fees.—In accordance with the wishes of the Legislature of 1921 all university extension work must be as nearly as possible self-supporting. The fees hitherto charged have therefore had to be increased. They are still very moderate, being kept low enough to cover only the actual cost. The cost of courses varies according to their length from eight to twenty-four dollars.

GRADUATE MEDICAL LECTURESHIP

In 1916 the Extension Service, with the cooperation of the Washington State Medical Society and the King County Medical Society, instituted a Graduate Medical Lectureship. The King County Medical Society annually appoints a committee which works with the representatives of the Extension Service in planning the course. The lectures are held in the early summer, and occupy five days. They are open to graduate physicians and surgeons. A fee is charged and any surplus over the expenses of the year goes into a special fund to be used as a reserve fund for the maintenance of this lectureship, or for the extension of medical education. The lectureship has proved of great value to the physicians and surgeons of the Pacific Northwest, bringing to them each year some of the best thought of the medical education centres of the country.

The lecturers have been:

- 1916. Dr. Charles L. Mix, Chicago, Northwestern University.
- 1917. Dr. Martin H. Fischer, University of Cincinnati.
Dr. Allen B. Kanel, Chicago, Northwestern University.
- 1918. Omitted on account of the war.
- 1919. Dr. Charles Lyman Greene, St. Paul.
Dr. Dean Lewis, Chicago.
- 1920. Dr. Henry A. Christian, Boston, Harvard University.
Dr. Barton Cooke Hirst, Philadelphia, University of Pennsylvania.
- 1921. Dr. Charles F. Hoover, Cleveland, Western Reserve University.
Dr. Carl A. Hamann, Cleveland, Western Reserve University.
Dr. Harris P. Mosher, Boston, Harvard University.
- 1922. Dr. John B. Deaver, Philadelphia, University of Pennsylvania.
Dr. Hobart Amory Hare, Philadelphia, Jefferson Medical College.
Dr. William McKim Marriott, St. Louis, Washington University.
Dr. Joseph Colt Bloodgood, Baltimore, Johns Hopkins University.
Dr. Walter Bradford Cannon, Boston, Harvard University.
Dr. William Engelbach, St. Louis, St. Louis University.

OFFICE OF EDITORIAL SECRETARY

ROBERT W. BENDEREditorial Secretary
HARRIETT WESTMORELANDCompiler

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The University of Washington Publications in Language and Literature.
The University of Washington Publications in Mathematics.
The University of Washington Publications in Political and Social Science.
The University of Washington Bulletin (Engineering Experiment Station Series).

Puget Sound Biological Station Publications.

The Washington Historical Quarterly.

The Washington Newspaper (Monthly for the press of the state).

The University of Washington Bulletin, General Series, including the bulletins of the various colleges and schools, General Catalogue, Summer Quarter Bulletin, and the University Directory are also compiled and edited in this office.

Besides the strictly technical, scientific and cultural publications, a weekly news service is sent to the press of the state. This service carries stories regarding the results of research in the various colleges and departments of the University. Often these stories offer helpful suggestions for various lines of industry and business, as well as material of interest in the homes. All specific requests for information regarding the University or the specialized work of any of its departments are referred to this office. It is the endeavor of this office at all times to interpret the many phases of University work and research to the state for the service and advantage of all, bringing this information to the people of the state as expeditiously as possible.

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ANDERSON, SAMUEL HERBERT

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DEGREES

DEGREES CONFERRED JUNE 20, 1921

BACHELOR DEGREES

COLLEGE OF LIBERAL ARTS

Bachelor of Arts

Anderson, Helen Dorothy (<i>cum laude</i>)	Kwok, Tak Wa
Arneson, Elias Thorlief Rund	Laney, Frances Willard
Atkinson, Evelyn Ann	Lange, Dayma
Attebury, Edgar Raymond	Leavitt, Marion Clare ²
Baird, Elizabeth	Lilly, Audrie Stella
Bardon, Norma Martha	Lindley, Mrs. Alice ³
Bemis, Catherine Meriam	McCormick, Helen
Birks, Margaret Elizabeth ⁴ (<i>cum laude</i>)	McCredy, Harold
Bonner, Gertrude	McHugh, Ruth
Bricker, William Albert Lee	Madison, Viola
Burdick, Don	Marion, Helen Isbael ²
Burnham, Helen Marie	Marlowe, Myrtle ²
Byrd, Mabel Janet ²	Marshall, Dorothy Edith
Campbell, Gertrude Cecilia	Melby, Esther Muriel
Carey, Robert Lincoln	Meneely, Alexander Howard
Chesley, Dorothy Helen (<i>cum laude</i>)	Meyer, Rita
Clausen, Elva ²	Miller, Esther Jean
Coffman, Grace ⁴	Mohr, Esther
Cohoes, Orlando Sumpter ²	Monteagle, Gwendolyn Anne ²
Collins, William Chapin (<i>cum laude</i>)	Nelson, Ellen
Conklin, Florina Agnes	Nelson, Laura Elsa
Cook, Jessie Nixon	Nettleton, Emily Orlene
Culver, Leda Gertrude	Nisairious, Philip George
Cutts, Laura Louise	O'Connor, James Matthew
Delerlein, Grace Margaret	Overman, Marion Gray
Dickinson, Laura Cornelia	Poysky, Tyne Christine (<i>cum laude</i>)
Downing, Joseph Mont	Ray, Doris ²
Dryden, Cecil Pearl ² (<i>cum laude</i>)	Rich, Estella May ²
Emerson, Frances Bargion ²	Richardson, Otis Dunbar
Fargo, Marion Charlotte	Roberts, Sara
Farnsworth, Ruah	Robertson, Jean Muriel
Faulk, Theodore Ephraim ²	Roy, Ruby (<i>cum laude</i>)
Finnicum, Ruth (<i>cum laude</i>)	Ryerson, Hilma Clare
Fix, Lynwood Watson	Shank, Katherine
Fleenor, J. Blankenship	Silvermaster, Nathan Gregory ²
Frazier, Lewis Raymond ² (<i>cum laude</i>)	Sloan, Besse Andrews
Garred, Max Frank	Smith, Chauncey Henry ²
Good, Josephine Dolores	Smith, George Mimms, Jr. ²
Gowran, Dawn Vivian	Smith, Gladys Lucile (<i>cum laude</i>)
Hall, Mabel Martha	Speer, Howard Benshoff
Hamley, Gladys Jean ²	Stead, Marlam Ellen
Harrington, Florence	Stevenson, Christena Lillie
Harvey, Helen	Summers, Doris Edith
Heermans, Donald	Sullivan, Clare Agnes
Henderlite, Elmer Claude Victor	Sullivan, Richard Francis
Hibbard, Myra	Thompson, Catherine
Hill, Cyril Dean	Thomson, Frances Clifton
Ho, Pao Jin	Virtue, Jessie Hardy
Holland, Ruth (<i>magna cum laude</i>)	Wagner, Florence Minerva
Hutchinson, William Harold	Waldo, (Mrs.) Josephine Mary (<i>cum laude</i>)
Johnson, Evelyn Alice	Werner, Winfred ²
Johnson, Jane Gregg	Whitlock, Maryhelen
Jones, Hazel Elizabeth (<i>cum laude</i>)	Wilson, Harvey Erwin
Jones, Marjorie	Woo, May Geraldine
Jones, Zenith Watkins	Youell, Miriam
Kenin, Harry Marvin	

NOTE: The persons whose names are followed by the superior figures 2, 3, received their degrees in the quarters of 1920-1921 ending in December and March, respectively; all others in June 1921.

For degrees conferred at the end of the summer quarter, August 30, 1921, see page 288.

COLLEGE OF SCIENCE

Bachelor of Science

Anderson, August Reinhold
 Anderson, Robert S.² (*cum laude*)
 Ayres, Katherine Mary²
 Bissett, Rudolph Alfred
 Blumenfeld, Zipora
 Bouck, Gordon Maynard
 Brockman, Fred William
 Byers, Katherine Ada²
 Camp, Dorothy Foster
 Catton, Mildred Wheeler
 Dudley, Lila Adele
 Farley, Helen Marie
 Fulton, Helen Louise
 Frye, (Mrs.) Elsie Anthan (*magna cum laude*)
 Gilluly, James² (*cum laude*)
 Griffiths, Lois Wilfred (*cum laude*)
 Gunn, Elizabeth
 Hardie, James Rogers
 Hartman, Ward
 Hugord, Luzerne Edson
 Jasperson, Agnes Grace
 King, Dorothy
 Landes, Kenneth Knight

Linton, James Reginald (*cum laude*)
 Linton, Robert Ritchie (*cum laude*)
 McCarthy, Owen Bernard²
 McDonald, Alice Louise
 Macfarlane, Don Andrews
 Mahoney, Ethel Cecilia (*cum laude*)
 Martin, Frances Lora
 Moran, Jean Mildred
 Mulhern, Frances Adele
 Myers, Margaret Esther (*cum laude*)
 Nemerovsky, Lena Leah
 Preston, Louisa Byrne
 Ratigan, Thomas
 Ruple, Paul Joseph
 Sangree, John Brewster
 Shigaya, Paul S.
 Snow, Iola
 Stanley, Maxine
 Sullivan, John Daniel
 Turner, Lloyd Edwin
 Upton, Virgil Morgan
 Watts, Ruth Mande
 Way, Lois Edith (*cum laude*)
 Young, Dorothy

Bachelor of Science in Home Economics

Allen, Glenna Alicia
 Anderson, Evelyn Martha
 Bassett, Charlotte Anne
 Cutter, Julia Louise
 Davis, Violet
 Dove, Eva May
 Fulton, Grace
 Helmich, Merle Lillian
 James, Marjorie²
 Jewett, Juliet Louise

Metsker, Margaret Ream
 Nelson, Beulah Mae
 Norman, Evelyn Minglis
 Olson, Lillian Eleanora
 Osterud, Nena Dorothea
 Paine, Carol Margaret
 Peterson, Gladys Loraine (*cum laude*)
 Phelps, Grace Marie
 Thomas, Gertrude Marion
 Walker, Bessie Marie

COLLEGE OF EDUCATION

Bachelor of Education

Alport, Ruth Jessie
 Bruce, Irene Frances
 Card, Mabel
 Connell, Archie Mitchell
 Crump, John Kennan
 Cummings, Ardye Helen (*cum laude*)
 DeRosa, Florence Marie²
 Dewhurst, Alice Janet
 Egan, Frances Marian
 Ensley, Talitha Eldora
 Fitz, Mildred Edna
 Gibson, Cora Eleanor
 Greguson, Judith² (*cum laude*)
 Hill, Glen Gordon
 Hills, Elizabeth²
 Himmelsbach, Dora May
 Hughes, Cecil Leonard
 Hyde, Marguerite Roberta
 Jones, Margaret Slater
 Kellern, Vivian

Lamoureux, Harvey De Witt
 Magill, Marion Roberta
 Morimoto, Takiji
 Neil, Vera
 Orrell, Jessie
 Peterson, May Anita
 Riddle, William Stanley
 Schoettler, Miriam Chapman²
 Steineke, Pearl Acena
 Strate, Johanna
 Travis, (Mrs.) Jessie Kuhn
 Troy, Marion Lucile
 Vining, Marjorie Claire
 Wallin, James Roy
 Weage, Esther Anna
 Wharton, Florence Lillian
 Wheeler, Gladys Fidele²
 Wheeler, Verna Mae
 Wiel, Bodil

COLLEGE OF FINE ARTS

Bachelor of Arts in Music

Chittick, (Mrs.) Edna Whitman
 Davis, Lois Lillian
 Faulkner, Reita
 Huntley, Elva Deane

McMorrin, Jean Pauline (*cum laude*)
 Martin, Connie Elvira
 Shepard, Aileen Ordell

Bachelor of Music

Billings, Rhea Ramona
 Neer, Margaret Rytz
 Neft, Fannie Devera (*cum laude*)

Robe, Vivian Moore
 Young, Fay Laverne

Bachelor of Fine Arts

Hinman, Mary Albertine

Bachelor of ArchitectureAyer, Elizabeth
Grandstand, Elmer WalthermerLockman, Frederick Vincent²

COLLEGE OF ENGINEERING

Bachelor of Science in Chemical EngineeringBrown, Earl Dwight
Lorah, James RichardMarton, Earle Vincent²
Sommerville, David Annesley**Bachelor of Science in Civil Engineering**Blessing, Laurence Joseph
Dautoff, Victor²
Glidden, Joseph Henry³
Nederlee, Anton Louis (*cum laude*)Richardson, George Bible²
Russel, Lewis Watler
Thies, William Adolph**Bachelor of Science in Electrical Engineering**Applegate, Lindsay Moritz
Axman, Ernest (*cum laude*)
Benezra, Henry²
Berg, Lawrence Richard
Bird, Lester Fletcher
Budden, Frank Wilfrid²
Donovan, William McKinley
Heacock, Ward James²Luft, Ernest Walter
Muney, Wallace Lincoln²
Rice, George Russell²
Roos, Albert Harvey
Rupp, George Wellington²
Spencer, Rhodes Vaughn
Suransky, Paul
Whiting, Edward Parsons**Bachelor of Science in Mechanical Engineering**Allper, Morris
Brisack, Floyd Raymond²
Bukowsky, Harry William Emil²
DeCan, Lawrence Malon²
Dickinson, Phillips
Downing, Fred²
Joy, Anderson StickneyKeator, Frederick William, Jr. (*cum laude*)
Luft, Herman
Northquist, Oscar Eaver
O'Rearr, Clyde Shaw
Pope, Ezra Tobey
Shaw, Cyril Nile
Strube, Charles Gustave, Jr.²**Bachelor of Science**Johnson, Halton Julius
Larson, Victor ByronLatimer, Earl Hastings²
Wilson, Edwin Durno²

COLLEGE OF MINES

Bachelor of Science in Mining Engineering

Anderson, Andrew Elmer

Bachelor of Science in Metallurgical EngineeringMoore, Gerald Edward
Pigott, WilliamSanders, David Scott
Zickrick, Lyl Westley**Bachelor of Science in Geology and Mining**Brandenthaler, Rudolph Richard²
Burmester, Harry Louis²
Campbell, Roy EverettHawley, Lyle Tracey
Merrill, Levi Jasper²

COLLEGE OF FORESTRY

Bachelor of Science in ForestryAndrews, Selden Spencer
Dreitzler, Ralph Francis
Fish, Walter Harold
Fogelquist, Charles F.²
Hayward, Harold Dewey²
Johnston, Sidney Linebarger²
Knapp, Frank Roy
Lankenau, Walter HenryMitchell, John Henry²
*Moody, Alan Kenneth²
Pearce, John Kenneth (*cum laude*)
Roberts, Wesley Kilmore
Roberts, Arthur Kitchel
Smith, Richard Merrill
Weston, John Roland
Williams, Robert Clifton²Died, May 16, 1921.

COLLEGE OF PHARMACY

Graduate in Pharmacy

Allibone, Pearl Hannah²
 Boswell, Raymond Chester²
 Carr, Eva Sabine
 Clark, Gwendolyn Dolores²
 Clausen, Wendell Herman
 Craigen, Leslie
 Day, Edwin John
 DeJong, Dowa
 Edwards, Charles Grant
 Everly, Walter
 Fisher, Frank Phillip
 Guinan, Burrows
 Hague, Sigmund

Houghland, Robert
 Johnson, Kathleeu
 Lancaster, Kirk Glynn
 Land, Perry
 Marsh, Lillian Angelina
 Mattson, Mildred
 Moffett, Thomas Joseph
 Remley, Audra
 Slocum, Esther Mary
 Smith, Emma Margaret
 Snortland, Oscar
 Taylor, Joe Elmer Rex

Pharmaceutical Chemist

Bernhelm, Martha Julia
 Cordero, Rosario
 Farrell, Charles Vincent²

Gilbert, Geraldine
 Lee, Richard Roy²

Bachelor of Science

Bernhelm, Martha Julia
 Carlender, Oswald Rudolph
 Gilbert, Geraldine

Lee, Richard Roy
 McGahn, Ellen

COLLEGE OF BUSINESS ADMINISTRATION

Bachelor of Business Administration

Adamson, John Quincy
 Aells, Margaret Kathryn
 Aitkin, Victor Marshall
 Allen, Arnold Southwick²
 Anderson, Myrtle Elvina
 Anderson, Virgil Leopold
 Bachelor, Robert Willard²
 Barclay, Charles Paul²
 Bechen, Eleanor (*cum laude*)
 Bruggeman, Kathryn Carolyn
 Burke, Howard Mason
 Chen, Tsan Lye
 Cheng, Chun-Kuei
 Cook, Erving Sumner²
 Corbin, Louise Ellen
 Corner, William Watson
 DeChenne, Homer Ray
 DeVoe, Donald Robert²
 Dunn, Beatrice Bernice (*cum laude*)
 Elgin, Etta
 Ernst, Clarence Reinhold
 Flood, George Edward
 Forrest, Ronald Cameron²
 Franck, Thomas G.
 Gibson, Blaine²
 Gilchrist, Marian Virginia²
 Gilley, Beth May
 Goble, Lucy Esther
 Goodheart, Mary Katherine
 Griffin, Robert Wetzel
 Hamill, Margaret Marian (*cum laude*)
 Hamilton, Clark Alexander
 Harbaugh, Charles Wooley
 Hogg, John McHenry
 Honey, Frederick Drake
 Huggett, Ralph²
 Inus, Raymond McKinley
 Ives, Mae Elizabeth
 Jamieson, Cecil Byron
 Juan de Leon, Teofilo
 Kobayashi, Hidekichi
 Lark, Bert Webb

Larse, Mona Josephine
 Laughlin, Raymond
 Linburg, Russell Stanton
 Lindholm, Arthur William
 Litchfield, William Marshall²
 Logg, Charles Paul
 McEuen, Marshall Lee
 McInnis, Merville Wayne
 Magowan, Thomas Ross
 Mahoney, Vera Valentine
 Mudge, Marcel Etienne
 Morse, Glenn Edwin
 Murphy, Mildred Pauline
 Ostensen, Harold Birge
 Rist, Dorothy Eugenia
 Robb, Opal
 Rowe, Adeline Lee
 Rowell, Fenton Charles²
 Sexton, Roy Linwood Thomas
 Shanks, Sarrol Meter, (*cum laude*)
 Simon, Henriette Rebecca
 Sinclair, Donald Walker
 Smith, Pearl (*magna cum laude*)
 Snowden, James Mathieu
 Steele, Victor Harvey
 Stevens, Grant Aaron
 Strong, Lloyd Christy
 Talbot, Archibald Weatherbee
 Taylor, George²
 Trenholme, Ruth
 Trowe, Arthur Palmer²
 Tung, Sung Wuan
 Upton, Earl Edward
 Van Sicklin, Mary Grace
 Waller, Donald
 Wheeler, James Addison
 Wiggins, Charles Kauffman
 Wiley, James Martin
 Wiman, Frederick Samuel
 Wood, James Harold²
 Woodward, Harriett
 Yates, James Ivan

COLLEGE OF FISHERIES

Bachelor of Science in Fisheries

Fiedle, Reginald Hobson
 Glen, Harold Veazie (*cum laude*)

Norgore, Martin (*cum laude*)
 Smith, Lawrence Kellam

SCHOOL OF LAW

Bachelor of Laws

Abel, Robert Bryan²
 Abelset, Oluf Marcus³
 Case, Edson
 Dickinson, Dean Howells
 Gilbert, Warren John²
 Graves, Paul Hyde³
 Hickey, Florence Mayne
 Hoard, Charles Vere²
 Hohman, Susan Cecella²

Holander, Tyre Harrison
 Hovey, Joseph Chester
 Matson, John Peter
 Oertel, Daniel²
 Richmond, Agnes Norby²
 Rode, Alfred
 Vandercook, Modecal William²
 Wilson, John Mayriale, Jr.²

LIBRARY SCHOOL

Bachelor of Arts

Danielson, Ella Theodora
 Keith, Emily Hazelwood
 Meigs, Jerusha Gilman

Putnam, Marguerite Eleanor
 Woolsey, Eva Fay

Bachelor of Science in Library Science

Alfonso, (Mrs.) Marie
 Bowles, Anna Laura

Meigs, Jerusha Gilman
 Smith, Myretta Walt

SCHOOL OF JOURNALISM

Bachelor of Arts in Journalism

Anderson, Vida Runghilde
 Bender, Robert William
 Brackett, Anson Wendell
 Christian, Byron Hunter²
 Dunn, Frank Clyde
 Grant, James Coleman

Hamilton, Rupert Lane
 Lesser, Margaret
 Maloney, Patricia
 Pierrot, George Francis, Jr.²
 von Kettler, Wanda
 Worboys, Helen Monfort

GRADUATE DEGREES

Master of Arts

Marie Brethorst (Education)
 B.L., Dakota Wesleyan, 1913
 Thesis: The Educational System of China

Opal Helena Collins (History)
 A.B., University of Washington, 1916
 Thesis: History of Education in the State of Washington

James Land Ellis² (English)
 A.B., University of Washington, 1920
 Thesis: Studies in the Theology of Milton

Glenn Arthur Hughes² (English)
 A.B., Leland Stanford University, 1916
 Thesis: "Broken Lights"

Arthur Kolstad² (Education)
 A.B., University of Washington, 1916
 Thesis: Comparison of Arithmetic Ability of Men in the Army and Children in the Public Schools

Ruth Haynes Livesay (English)
 A.B., Pacific University, 1917
 Thesis: The Evolution of H. G. Well's Conception of God

Worth McClure (Education)
 A.B., Simpson College, 1908
 Thesis: The Function of the Grade Principal

Mae Mathieu (French)
 A.B., University of Washington, 1910
 Thesis: Literary Relations of Corneille and Rotrou

Esther Maria Shepherd (English)
 A.B., University of Washington, 1920
 Thesis: Frontier Literature

Berrie Pearl Yerger (History)

A.B., University of Washington, 1916

Thesis: The Congressional Record of Senator James Reed Doolittle

Master of Science

Clyde Myron Cramlet² (Mathematics)

A.B., Walla Walla College, 1916

Thesis: Conformal Representation with a Special Complex Equation

Addison Harold Hotelling (Mathematics)

A.B., University of Washington, 1919

Thesis: A Mathematical Theory of Migration

William Lester Gilliland (Chemistry)

B.S., University of Washington, 1920

Thesis: The Preparation of Nickel and Carbonyl

Mae Ellen Larkin (Bacteriology)

A.B., New York State College for Teachers, 1910

Thesis: On the Causes of Variability in the Activity of Guinea-pig Complement

George Bartholomew Sartoris (Botany)

B.S., University of Washington, 1920

Thesis: A Cultural Study of Smut (*Tilletia Tritic*) on Hard Media

Isabel Clarissa Stewart (Psychology)

B.S., University of Washington, 1920

Thesis: The Effect of One Factor in a Situation upon Learning

Dorothea Taylor (Zoology)

A.B., University of Washington, 1918

Thesis: The European Earwig in Seattle

William Ronald Wilson (Psychology)

A.B., University of Washington, 1917

Thesis: The Effect Upon Practice of Accompanying Conditioning Stimuli

Master of Science in Mechanical Engineering

Shinji Yonemoto

B.S. in Mechanical Engineering, University of Michigan, 1920

Thesis: Scientific Management

Master of Science in Ceramics

Ernest Francis Goodner

B.S. in Chemical Engineering, University of Washington, 1920

Thesis: Four Typical Refractory Clays of Washington

Master of Science in Metallurgy

Arvid Emil Anderson

B.S., University of Utah, 1920

Thesis: The Production and Melting of Sponge Iron

Arthur Paul Wickmann

B.S. in Mining Engineering, University of Wyoming, 1919

Thesis: Froth Flotation of Coal

Master of Science in Forestry

Charles Fridolph Fogelquist

B.S.F., University of Washington, 1920

Thesis: Planing Mill Practice and Design

Irvin William Otto Gamm

A.B., Northwestern University, 1916

B.S.F., University of Washington, 1920

Thesis: The Fibre-length of Douglas Fir as a Determinative Characteristic in the Treatment of Douglas Fir

Alexander Michael Koroleff

M.F., University of Petrograd (Imperial Forestry Institute), 1913

Thesis: Logging by Crawler Type Tractors

UNIVERSITY OF WASHINGTON

Master of Science in Pharmacy

Omega Hilton

B.S., University of Washington, 1917

Thesis: The Action of Nitrosyl Chloride on Normal Heptane

Maria Ylagan Orosa

B.S., University of Washington, 1920

Thesis: Methods of Assay and Chemistry of Neo-Arsphenamine

Master of Business Administration

Raphael Lester Kelly

B.B.A., University of Washington, 1920

Thesis: A Blue Sky Law for the State of Washington

Master of Arts in Business Administration

Toshio Ohtaguro

A.B., Meiji University, 1915

Thesis: Transportation in Japan

Doctor of Philosophy

Chester Lacount Rich

A.B., Boston University, 1915

M.A., Boston University, 1916

Thesis: The Progress of Humane Legislation in Washington

NORMAL DIPLOMAS

Five-Year Diploma

Acels, Margaret Kathryn
 Anderson, Evelyn Martha
 Anderson, Helen Dorothy
 Anderson, Myrtle Elvina
 Ayres, Katherine Mary²
 Bardon, Norma Martha
 Bassett, Charlotte Anne
 Birks, Margaret Elizabeth
 Blumenfeld, Zlpora
 Bonner, Gertrude
 Brackett, Bertha²
 Bricker, William Albert Lee
 Brockman, Fred William
 Bruce, Irene Frances
 Burnham, Helen Marie
 Bryant, Lucile Swigart
 Byers, Kathryn Ada²
 Camp, Dorothy Foster
 Campbell, Gertrude Cecelia
 Card, Mabel
 Catton, Mildred Wheeler
 Chamberlain, Elizabeth²
 Chesley, Dorothy Helen
 Conklin, Florina Agnes
 Connell, Archie Mitchell
 Cook, Jennie Nixon
 Craske, Fred²
 Culver, Leda Gertrude
 Cummlings, Ardyce Helen
 Cutter, Susan Ethel²
 Cutts, Laura Louise
 Davies, Violet
 Davis, Lois Lillian
 Deterlien, Grace Margaret
 DeRosa, Florence Marie²
 Dewhurst, Alice Janet
 Dickinson, Laura Cornelia
 Downing, James Mont
 Dudley, Lila Adele
 Eagan, Frances Marian
 Emerson, Frances Bargion²
 Ensley, Talitha Eldora
 Farley, Helen Maria
 Farnsworth, Ruah
 Filz, Mildred Edna

Finnicum, Ruth
 Fulton, Grace
 Ganders, Harry Stanley²
 Gibson, Cora Eleanor
 Good, Josephine Dolores
 Gowran, Dawn Vivian
 Griffiths, Lois Wilfred
 Harrington, Florence
 Helmich, Merle Lillian
 Henderlite, Elmer Claude Victor
 Hibbard, Myra
 Hill, Glen Gordon
 Hills, Elizabeth²
 Himmelsbach, Dora May
 Hinman, Mary Albertine
 Holland, Ruth
 Hughes, Ina Belle²
 Hyde, Marguerite Roberta
 Jaspersen, Agnes Grace
 Jones, Margaret Slater
 Jones, Marjorie
 King, Dorothy
 Lamoreux, Harey DeWitt
 Larse, Mona Josephine
 Leavitt, Marion Clare²
 Lilly, Audrie Stella
 Lindley, (Mrs.) Alice²
 McCormick, Helen
 Madison, Viola
 Marot, (Mrs.) Ada Bouck
 Marshal, Dorothy Edith
 Melby, Esther Muriel
 Metsker, Margaret Ream
 Meyer, Rita
 Miller, Esther Jean
 Mills, (Mrs.) Adele Hoppock²
 Monteagle, Gwendolyn Anne²
 Myers, Margaret Esther
 Neer, Margaret Rytta
 Neil, Vera
 Nelson, Ellen
 Nelson, Laura Elsa
 Nemerovsky, Lena Leah
 Norman, Evelyn Minglis
 Olson, Lillian Eleanor

Orrell, Jessie
Overman, Marion Gray
Paine, Carol Margaret
Peterson, Gladys Loralne
Peterson, May Anita
Phelps, Grace Marie
Podmore, George Arthur²
Poysky, Tyne Christine
Preston, Louise Byrne
Reeves, Joseph Austin
Riddle, William Stanley
Robe, Vivian Moore
Ryerson, Hilma Clare
Simon, Henriette Rebecca
Sloan, Besse Andrews
Smith, Gladys Lucile
Smith, George Mimms, Jr.²
Snow, Iola
Stanley, Maxine

Stead, Miriam Ellen
Steinske, Pearl Acena
Summers, Doris Edith
Thomas, Gertrude Marion
Thompson, Catherine
Travis, (Mrs.) Jessie Kuhn
Troy, Marion Lucile
Vining, Marjorie Claire
Virtue, Jessie Hardy
Wagner, Florence Minerva
Walker, Bessie Marie
Watrous, Genie Ida²
Way, Lois Edith
Wenge, Esther Anna
Webster, Jessie Elizabeth²
Wharton, Florence Lillian
Wheeler, Verne Mae
Wiel, Bodil
Woodward, Harriett

University Life Diploma

Alport, Ruth Jessie
Anderson, Isabel Pitts²
Baker, Alice Harriet
Bartley, Georgia Lulu
Blair, Anna Clio
Connors, Edna
Cunningham, Theresa
David, Pearl La Rue
Desmond, Margaret Rose
Dryden, Cecil Pearl²
Emerson, Frances Bargon
Fleenor, Blankenship
Floyd, Lona Mildred
Foltz, Laura Azalia
Fraser, Alice Rosena
Gates, Louise
Glaser, Harry
Greguson, (Mrs.) Judith²
Hurley, Ernest Edmund²
Hutchison, Dora²
Jacobs, Isabel
Johnson, Mrs. Lucille Saunders²
Keenan, Helen Rose²
Kelsey, Louise²
Krafft, Gertrude²
Lindass, Anna²
McCall, Mrs. Bernadine Haller
McConthe, Almee Katherine²

McEatee, Mary Elizabeth
McHugh, Ruth
McKay, Mary Hannah Isabel
Marion, Helen Isabel²
Miles, Alice
Miller, Helen
Moffett, Edith Pauline
Morgan, Miles Evan
Oliphant James Orin²
Olson, Cecilia Olive²
Parks, Grace Amella²
Prestrud, (Mrs.), Jean Porter²
Pritchard, Millie Margaret²
Roys, Ruby
Schoettler, Miriam Chapman²
Shaffer, Florence²
Simonson, Louise Katherine²
Smallwood, Gladys Nelsine
Strate, Johanna
Sundquist, Leonia Maria
Taylor, Martha Sarah
Tollefson, (Mrs.) Hazel Nisbit²
Tucker, Ruth Elizabeth
Vining, Marie
Wheeler, Gladys Fidele²
Willard, (Mrs.) Ethel Combs
Winter, Frank²

Senior Scholars—Class of 1921

Chesley, Dorothy Helen
Davidson, Thomas Nelson
Dunn, Beatrice Berniece
Greenwood, Lucile Marcelle
Holland, Ruth
Houck, Hazel
McMorran, Jean Pauline
Orrell, Jessie
Smith, George Mimms

Romanic Languages
Education
Business Administration
Journalism
Romanic Languages
Home Economics
Music
Mathematics
History

COMMISSIONS IN THE OFFICERS' RESERVE CORPS, UNITED STATES ARMY

Second Lieutenant, Coast Artillery Corps

James Theodore Catlett
Fred John Singer
Glen Hart Walker

Second Lieutenant, Infantry

Virgil Leopold Anderson
Floyd Raymond Brisack
Cecil Byron Jamieson

UNIVERSITY OF WASHINGTON

DEGREES CONFERRED AUGUST 30, 1921

BACHELOR DEGREES

COLLEGE OF LIBERAL ARTS

Bachelor of Arts

Allen, Mabelle
 Anderson, Mary Holderman
 Campbell, Jean Allison
 Chen, Suen
 Clark, Elizabeth Roulston
 Cobb, Christina Marie
 Cochran, Catharyn Elizabeth
 Coffman, Mabel Maurine
 Criswell, Lois
 Cutts, Beatrice Tyler
 Fleenor, (Mrs.) Mame
 Forbes, Edith
 Gellermann, William
 Gorman, Vinsen Ellen

Hjertoos, Gurina Oline
 Hoover, Ralph Leonard
 Johnson, (Mrs.) Leta B.
 McGill, Vivian Jerarald
 Martin, Mary Geneva
 Mason, Irma Ruth
 Moreland, Mildred
 Morrison, Ruth Louise
 Owen, Elizabeth Hayden Pratt
 Stephenson, Edith Frances
 Towne, Mertice Claire
 Trawick, Margaret Phillips
 Van, Tsee-chong
 Wilson, Frances Imogen

COLLEGE OF SCIENCE

Bachelor of Science

Crowder, Harriet
 Davis, Dorothy Carvel
 Gregg, Ralph
 Hawley, Sydney James

Little, Dorothy Vernon
 McConihe, Marguerite Charbonnel
 Peden, Barton Edward
 Siler, Lillie May

Bachelor of Science in Home Economics

Brown, Edith Olivia
 Hauck, Hazel Marie

Ostrand, Ruth Elizabeth

COLLEGE OF EDUCATION

Bachelor of Education

Abnquist, Martha Edith
 Brokaw, Marion A.
 Close, Anetta Lillian
 Cooney, Alta Carolyn
 Ector, Phebe Payne
 Foster, Charles Jacob
 Gray, Josephine
 Harris, Sarah Eleanor

Kipp, Pearl Velma
 McKim, Mrs. Margaret McLean
 Miller, Elveta Leone
 Morford, Helen Irene
 Morton, Mamie Belle
 Olmsted, Marion C.
 Robertson, Berdena Marion
 Stranack, Janet Katherine

COLLEGE OF FINE ARTS

Bachelor of Arts in Music

Burch, Clara Catherine
 Cole, Thelma Nadine

Wheaton, Marion Elizabeth

Bachelor of Music

Mason, Lela Ernestine

Bachelor of Fine Arts

Ely, John Carl
 Fellers, Josephine Sanders

Pattison, Evelyn

Bachelor of Arts in Dramatic Art

Teall, Mrs. Hazel Connell

COLLEGE OF ENGINEERING

Bachelor of Science in Chemical Engineering

Grant, Gary Gale

Bachelor of Science in Electrical Engineering

Adelson, Abraham Michael
 Landsburg, Robert Archibald

Mattson, Nels Emanuel

Bachelor of Science

Keyes, Harmon Edward

COLLEGE OF PHARMACY

Graduate in Pharmacy

Haleston, Chris

Pharmaceutical Chemist

Dais, Ruth Magdaline

Bachelor of Science

Cordero, Rosario Manala

Davis, Ruth Magdaline

COLLEGE OF BUSINESS ADMINISTRATION

Bachelor of Business Administration

Anderson, Ray Horace
 Bannwarth, Charles Gustave
 Baker, Carl Oscar
 Bates, Kenneth Ogden
 Bellingham, Norman O.
 Bien, Henry Hui-sung
 Brickell, Duncan Walker
 Cheng, Chien-Feng
 Dickerson, William Eugene
 Elwick, Andrew
 Foo, Yao Cheng
 Goldman, Jack
 Harvey, John Hamilton
 Irvin, John Ivan
 Johnston, Hazel Blanche

Knudson, Einar Mangnus
 Kongsle, Edward
 Lee, Juel Kuel Theodore
 McLeod, Gladys Irene
 McMillan, Gregor MacLeod
 MacNaughton, Ellen
 Miller, Ethel Adella
 Myers, Dicie Mildred
 Nelson, Leone Marie
 Pratt, Helen Van Ness
 Starin, Joseph
 Turner, Herbert Clair
 Turpin, Harold Lester
 Wood, Arthur Garde

COLLEGE OF FISHERIES

Bachelor of Science in Fisheries

Pugsley, Walter Herbert

SCHOOL OF LAW

Bachelor of Laws

Ellis, Leon Hubbard
 Hover, Ernest John
 Hyndman, William L.

Miller, Roy Charles
 Sprague, Hollister Thompson

LIBRARY SCHOOL

Bachelor of Arts

Hansen, Violo

Bachelor of Science in Library Science

Gill, Margaret Susannah

Grant, Muriel

SCHOOL OF JOURNALISM

Bachelor of Arts in Journalism

Verran, William Jr.

GRADUATE DEGREES

Master of Arts

Dean Stanley Bollman (English)

A.B., University of Washington, 1919

Thesis: The Social and Political Philosophy of G. Lowes Dickinson

Ewan Clague (Political Science)

A.B., University of Washington, 1917

Thesis: The Theory and Practice of Representation in the United States

Pearl Sibyl Coffinberry (Education)

A.B., Fairmount College, Kansas, 1907

Thesis: A Survey of Instruction in an Elementary School of Two Hundred Fifty Pupils

Henry Cremer (Education)

A.B., University of Washington, 1915

Thesis: Some Psychological Factors of Manual Arts

Oscar Kern Glover (Education)

A.B., University of Washington, 1919

Thesis: A Social and Educational Survey of School District No. 65 (Kapowsin), Pierce Co., Washington

UNIVERSITY OF WASHINGTON

Elmina Elisabeth Graham (English)

B.L., Whitman College, 1908

Thesis: A Comparison of the Novels of Charles Brockden Brown with Godwin's Caleb Williams

Harrison French Heath (Education)

B.S., University of Washington, 1916

Thesis: A Short Course in Vocational Civics for High School Seniors

Henry T. Imes (Education)

B.Ed., University of Washington, 1918

Thesis: Vocational Guidance Through Arithmetic

Thayne Miller Livesay (Education)

A.B., Pacific University, 1917

Thesis: Administrative Plans for the Improvement of Retention and Promotion of Public School Children

Gabriel Lottfield (Education)

B.S., Valparaiso, 1893

A.B., University of Washington, 1918

Thesis: The Direct Principle in the Teaching of Modern Languages

John D. Meyer (Education)

A.B., Washington State College, 1912

Thesis: Results Obtained from the Otis Group Intelligence Scale Applied to School Grades Four to Twelve Inclusive, of Harrington, Washington, and Some School Adjustments Based Thereon.

Elvey Tillman Parsons (Education)

B.Ed., University of Washington, 1920

Thesis: A Study of the Taxation of Timber Lands in the State of Washington as a Source of Revenue for School Purposes

Tillman Peterson (Education)

A.B., Luther College, 1908

Thesis: Occupational Survey of the Hoquiam High Schools

Katherine Constance Robertson (English)

A.B., University of Washington, 1918

Thesis: A Critical Exposition of the Philosophy of Herbert G. Wells

Eleanor Marie Sickels (English)

A.B., Whitman College, 1917

Thesis: Prophets of Man: A Study in the Religion of the Socially Conscious Poets of Contemporary America

S. Bertta Wilson (English)

A.B., University of Washington, 1917

Thesis: Notes on the Doctrines and Sources of Sir Thomas B. Browne's Religio Medici

Wesley George Young (Education)

A.B., University of Washington, 1917

Thesis: An Interpretation of Recent Tendencies in English Education

Master of Science

Helen Elizabeth Eagleson (Psychology)

B.S., University of Washington, 1920

Thesis: The Effect of the Presence or Absence of an Accompanying Sound Stimulus in the Maze Learning of White Rats

Master of Business Administration

Lisette Emery Fast (Economics)

A.B. Leland Stanford, 1919

Thesis: The Efficiency of Cargo Handling in Relation to the Decasualization of Long-Shore Labor on the Seattle Waterfront

Lorraine Frankfield (Business Administration)

A.B., Leland Stanford, 1919

Thesis: An Efficiency Rating for Departmental Managers in Department Stores

Doctor of Philosophy

Olive Kuntz (History)

A.B., University of California, 1916

M.A., University of California, 1917

Thesis: Tiberius Caesar and the Roman Constitution

NORMAL DIPLOMAS—AUGUST, 1921

Five-Year Normal Diploma

Abel, Helen Marian
 Ahnquist, Martha Edith
 Aitken, Victor Marshall
 Allen, Glenna Alicia
 Baker, Carl Oscar
 Billings, Rhea Ramona
 Brokaw, Marion
 Brown, Edith Olivia
 Cage, Mary
 Campbell, Jean Allison
 Clark, Elisabeth Roulston
 Cooney, Alta
 Crowder, Harriet
 Cutts, Beatrice Tyler
 Ector, Phebe Payne
 Elwick, Andrew
 Fleenor, Mrs. Mame
 France, Alda May
 Gunn, Elisabeth
 Harris, Sarah Eleanor
 Hauck, Hazel Marie
 Hjertoos, Gurina Oline
 Hughes, Cecil Leonard
 Jaadan, Nels
 Johnson, Mrs. Leta E.
 Kipp, Pearl Velma

Larson, Victor Byron
 McKim, Margaret McLean
 Mason, Irma Ruth
 Mason, Lela Ernestine
 Morford, Helen Irene
 Moreland, Mildred
 Myers, Dicie Mildred
 Nelson, Leone Marie
 Olmsted, Marion C.
 Ostrander, Ruth E.
 Packard, Augustus Henry
 Pattison, Evelyn
 Perkins, Georgia Yost
 Rich, Estelle May
 Robertson, Marian Berdena
 Siler, Lillie May
 Smith, Elfreda Allen
 Stephenson, Edith Frances
 Stranack, Janet K.
 Teall, Mrs. Hazel Connell
 Turner, Lloyd Edwin
 Wassberg, Clarence E.
 Watson, Anna E.
 Whitehead, Virgil
 Wilson, Frances Imogen

University Life Diploma

Anderson, John Franklin
 Andrews, Etta
 Arthur, Agnes
 Bell, Doris Lillian
 Binnings, Mildred Olive
 Bonell, Hannah E.
 Carey, Miles E.
 Chandler, Elsie
 Close, Anelta Lillian
 Coffinberry, Pearl S.
 Grasse, Frederick H.
 Ellis, John Boyd
 Forbes, Edith
 Fox, Viva
 Gerriets, Anna
 Good, Jane
 Greene, Clyde Joseph
 Hamm, Gladys
 Hartmann, Elsie A.
 Holman, Zelma L.
 Hone, Marie C.
 Houghton, Florence Lewis
 Jerbert, Arthur Rudolph
 Kronschnable, Mercedes

Larsen, Laura Melana
 Lewis, Helen Frater
 MacPherson, Lexie
 Manson, Gladys
 Marsh, Constance Ardena
 Martin, Lenore
 Milkild, Mildred Eunice
 Miller, Mrs. Edeltrud
 Munger, Ruth Willard
 Myer, Edna M.
 Norton, Mamie Belle
 Proctor, Muriel Esther
 Quast, Iola
 Roberts, Sara
 Robinson, B. Veryl
 Sater, Gertrude P.
 Sheehan, Mary Madeline
 Shelton, Lucy Mather
 Simonds, Esther
 Swegle, Adele Mae
 Thwing, Clarence
 Watt, Mabel
 Xaxier, John Ulrick

FELLOWSHIPS, SCHOLARSHIPS AND PRIZES

JUNE 20, 1921

- †The Loretta Denny Fellowships
 †The Arthur A. Denny Fellowships
 †Fellowships in the College of Mines and the Northwest Experiment
 Station United States Bureau of Mines
 †The Dupont Fellowship
 The Bon Marche Industrial Fellowship
 Alice Rosena Fraser
 Columbia University Fellowship in Mining Engineering and Chemistry
 Stanley Gill
 The Mars Fellowship (Not yet awarded)
 The E. F. Blaine Oratorical Prize of \$100
 Awarded to University of Idaho
 The Judge Kenneth Mackintosh Debating Prize of \$75
 James Milton Bailey Robert Stetson Macfarlane
 The Isabella Austin Memorial Scholarship for a Freshman Woman
 Eliza May Hopf
 The University State Bank Prize of \$100
 Wendell Carl Edberg Carl Oscar Baker
 The Judge Thomas Burke Prize of \$25 for Excellence in French
 Miriam Remley
 The Judge Thomas Burke Prize of \$15 for Excellence in French
 Lydia Louise Scott
 The Junior Military Prize
 Louis Fechter Janeck
 The Samuel Rosenberg Scholarship of \$200 in French
 Germaine Mercier
 The N. Paoletta Gold Medal for Excellence in Italian
 Marjorie Jones
 The Felix Rosala Prize of \$25 in Italian
 Beth May Gilley
 The Silvio Risegari Prize of \$50 in Italian
 Iris Canfield
 The Frank Buty Prize in Italian
 Thelma Harold
 The Kellogg Prizes of \$35 in Architecture
 Elizabeth Ayer *Marshall Walter Gill Doris Selbert
 The Gamma Phi Beta Scholarship of \$100
 Lois Janet Wentworth
 The Sigma Delta Chi Prize of \$100 in Journalism
 Maurice Amlot Rupert Hamilton
 The Washington Alumnae Scholarship of \$100
 Ethel Marjorie Williams
 The Vimy Ridge Chapter of the Daughters of the British Empire Prize of \$100
 Elwood Hutcheson Honorable mention, Herbert Eades
 The Thomas Burke China Club Prize of \$25
 Horace Gilbert
 The Ko Liang Yih Prize of \$25
 Lillian Crane
 The Venino Scholarship in Music
 Hazel Waechter

† See page 14.

*Died, June 25, 1921.

REGISTER OF STUDENTS—1921-1922

*Year course in Public Health Nursing

Aagaard, Estella, LD, Bus.....Seattle
 Aalto, Hmi A, UD, ME.....Douglas, Alaska
 Abbott, Susan, LD, LA.....Seattle
 Abel, Fred, LD, LA.....Montesano
 Abel, William Denzil, LD, For.....Montesano
 Abell, Chas H, LD, BA.....Waterloo, Wis
 Aber, James F, UD, Ed.....Seattle
 Abrahamson, Jacob, LD, Bus.....Seattle
 Acacio, Tomas A, LD, CE.....Seattle
 Adams, Arlene Marie, UD, FA.....Seattle
 Adams, Carlton F, LD, EE.....Seattle
 **Adams, Eugene C, Sp, Bus.....Hunter, N D
 Adams, G Svart, LD, Bus.....Seattle
 Adams, George B, LD, Bus.....Seattle
 Adams, Howard William, LD, Bus.....Seattle
 Adams, Hugh UD BA.....Tacoma
 Adams, James H, LD, Eng.....Touchet
 Adams, John C, LD, Sci.....Portland, Or
 **Adams, Nick, Sp, Bus.....Seattle
 Adamson, Louise, LD, Phar.....Seattle
 Adamson, Merritt C, LD, Ed.....Seattle
 Adkins, Helen Ernestine, LD, Sci.....Seattle
 Agnoli, Andres G, LD, Ed.....Philippines
 Agen, John Stuart, LD, Bus.....Seattle
 Agnew, Mertyl Jane, LD, LA.....Centralla
 Agnuda, Mariano M, Unc, Eng.....Philippines
 Agulla, Jose C, UD, Bus.....Philippines
 Aguilardo, Pedro D, Min.....Philippines
 Aguilardo, Pedro D, LD, Min.....Philippines
 Aguirre, Humberto, Unc, LA.....Chile
 Aharan, Ada Alma, LD, Bus.....Seattle
 Ahrens, Russel, LD, Bus.....Farmington
 Ainsworth, Ruth, UD, Jour.....Newport
 Aitchison, Edwin Perie, LD, Bus.....Spokane
 Aitchison, E Victoria, LD, LA.....Berkeley, Cal
 Aitken, Florence Rose, UD, LA.....Seattle
 **Ajaz, Ivor I, LD, Bus.....Wenatchee
 Alambra, Jose Z, LD, Sci.....Philippines
 Albaugh, Dorothy G, LD, LA.....Spokane
 Albee, Archie Veryl, UD, LA.....Seattle
 Alben, N Edna, Grad.....Vancouver
 Alden, John H, Grad.....Washington, D C
 Aldrich, Eric N, UD, Bus.....Walla Walla
 Aldwell, Doreen, LD, LA.....Port Angeles
 Aldwell, Norah E, UD, Bus.....Port Angeles
 Algeo, Thomas H, UD, ME So. Tacoma, R 1
 Alinder, Elsie Kathryn, LD, Sci.....Seattle
 Allan, Hazel, LD, LA.....Seattle
 Allan, Helen Quinton, LD, LA.....Seattle
 Allen, Blanche Lucille, LD, Phar.....Seattle
 Allen, David Clyde, LD, ME.....Taholah
 Allen, Doris M, UD, LA.....Duvall
 Allen, Edna, LD, Phar.....Selah
 Allen, O Edward, UD, EE.....Seattle
 Allen, Erdman J, UD, Eng.....Seattle
 Allen, Gordon C, LD, For.....Seattle
 Allen, Harry Warren, LD, Bus.....Seattle
 Allen, Herbert W Jr, UD, Bus.....Spokane
 Allen, John M, 2d Law.....Seattle
 Allen, Lucena, Unc, Bus.....Seattle
 Allen, Mabel Mary, LD, LA.....Yakima
 Allen, Ruth Frances, LD, FA.....Toppenish
 Allen, Thomas J Jr, UD, For.....Seattle
 Allen, Thomas Sargent, LD, Bus.....Seattle
 Allen, Vera, UD, LA.....Seattle
 Allen, Webster George, Unc, For.....La Conner
 Allyn, P, LD, Bus.....Seattle
 Altman, Luther Clare, LD, Ed.....Bellingham
 Alvey, Mary W, LD, FA.....Seattle
 Ames, Anne, Sp, FA.....Seattle

**U. S. Vocational Student

Amesbury, Helen Jean, LD, Bus.....Seattle
 Amiot, Maurice, UD, LA.....Spokane
 Amos, Felipe R.....Philippines
 Anderberg, Marvin Orelt, UD, ME.....Spokane
 Anders, Irene, LD, LA.....Seattle
 Anderson, Adolph, LD, EE.....Battle Ground
 Anderson, Alma C, LD, LA.....Everett
 Anderson, Andrew W, UD, Fish.....Seattle
 Anderson, Anton Lee, LD, Bus.....Creston
 Anderson, Arthur Andrew, LD, LA.....Seattle
 Anderson, Arthur Joel, UD, Bus.....Seattle
 Anderson, Beatrice, Grad.....Berkeley, Cal
 Anderson, Berger, Fr Eng.....Seattle
 Anderson, Bernard F, Unc, Bus.....Seattle
 Anderson, Chas N LD, Bus.....Seattle
 Anderson, Chris, LD, ME.....Seattle
 Anderson, David G, Unc, Eng Vancouver B C
 Andersen, Detmer A, LD, Min.....Seattle
 Anderson, Donald C, LD, Bus.....Aberdeen
 Anderson, Dorothy I, LD, Bus.....Seattle
 Anderson, Earl W, LD, CE.....Spokane
 Anderson, Edgar, Unc, Law.....Seattle
 Anderson, Edna M, UD, Ed.....Redmond
 Anderson, Edward Garrett, UD, Ed.....Seattle
 Anderson, Edward Quinn, LD, LA.....Olympia
 Anderson, Edwin, LD, ME.....Chinook
 Anderson, Elizabeth, LD, LA.....Tacoma
 Anderson, Evelyn C, Unc, LA.....Seattle
 Anderson, George D, LD, LA.....Everett
 Anderson, Georgia, LD, LA.....Seattle
 Anderson, Helen Ethelyn, UD, LA.....Seattle
 Anderson, Helen J, LD, FA.....Auburn
 Anderson, Jessie J, Grad, Sci. Vancouver, B.C.
 Anderson, John A, LD, Bus.....Seattle
 Anderson, John Algot, LD, EE.....Seattle
 Anderson, Joseph R, LD, Phar.....Enumclaw
 Anderson, Julia J, LD, Sci.....Tacoma
 Anderson, Lloyd Alva, Unc, EE.....Roy
 Anderson, Lou E, UD, Sci.....Seattle
 Anderson, Mrs. Louise, UD, Sci.....Spokane
 Anderson, Mabel Felton, UD, LA.....Seattle
 Anderson, Margaret G, UD, Bus.....Tacoma
 Anderson, Melvin G, UD, Sci.....Seattle
 Anderson, Niles M, LD, For.....Mahara
 Anderson, M. Olga, UD, FA.....Seattle
 Anderson, Pearl A, UD, LA.....Seattle
 Anderson, Phleena, LD, LA.....Mt Vernon
 Anderson, F Raymond, LD, LA.....Tacoma
 Anderson, Robert F, UD, Bus.....Spokane
 Anderson, Stanley J, LD, Bus.....Seattle
 Anderson, Walter J, UD, Bus Coeur d'Alene Id
 Anderson, William, LD, LA.....Battle Ground
 Andren, Chas C, LD, EE.....Orange, Cal
 Andrews, Clarence A, LD, LA.....Seattle
 Andrews, Emery E, UD, LA.....Modesto, Cal
 Andrews, La Mar Bert, UD, Bus.....Spokane
 Angle, Herbert G, UD, Bus.....Shelton
 Angst, Ernest Clement, UD, Sci.....Chehalis
 Annett, Kenneth, LD, Bus.....Hoquiam
 **Annis, Verle L, UD, FA.....Alderton
 Ansonrg, Norman L, LD, LA.....Seattle
 Apple, Alberta, UD, Ed.....Ellensburg
 Appleby, Mary W, UD, Ed.....Bellingham
 Applegate, Kenneth W, LD, Sci.....Everett
 Appleton, O Floyd, Unc, LA.....Seattle
 Aquino, Juan, LD, Bus.....Philippines
 Arae, K, Allen, LD, FA.....Seattle
 Aral, Clarence T, 1st Law.....Seattle
 Archie, Howard Dean, UD, Bus.....Seattle
 Arclaga, Moses, LD, LA.....Seattle

- Arend, Harry O, LD, LA.....Spokane
 Arima, Sumiyoshi, Grad.....Japan
 Arkley, Helen L, UD, Pharm.....Tacoma
 Armin, Julia E, LD, LA.....Long Beach, Cal
 Armitage, Harry H, LD, Bus.....Yakima
 Armstrong, Margaret, LD, LA.....Seattle
 Armstrong, Mildred E, LD, FA.....Seattle
 Armstrong, Ronald K, Sp. Fish.....England
 Arnesen, T. Elias, Grad.....Norway
 Arneson, Ruby, UD, Ed.....Harshaw, Wis
 Arnold, Dillma R, LD, LA.....Seattle
 Arnold, Frederick G, LD, EE.....Seattle
 Arnold, Ruth I, UD, FA.....Naches
 Arntzen, Edward J, Grad.....Parkland
 Aronin, Sam Morse, LD, LA.....Seattle
 Arquero, Justo, LD, Sci.....Philippines
 Arzaga, Flaviano, LD, ME.....Philippines
 Ashton, Emmett R, UD, EE.....Seattle
 Ashton, Fred W Grad.....Seattle
 *Astel, George Bernard, UD, Jour. Stanwood
 Atkins, Ruth H, UD, LA.....Bellingham
 Attebury, Edgar R, Grad LA.....Everett
 Atwood, Mary Cathryn, LD, Ed.....Seattle
 Audett, Theoplas Bernard, LD, LA, Seattle
 Auld, Willis B, LD, Bus.....Granger
 Ausman, Joseph M, S, F.....Seattle
 Austin, George Ray, Grad.....Seattle
 Austin, Russell A, LD, Bus.....Aberdeen
 Austin, Villars T, LD, Sci.....Pasco
 Averill, Archie E, LD, EE, The Dalles, Or
 Avery, Dolores, LD, LA.....Seattle
 Avery, Richard Lester, Spec, Eng, Seattle
 Axman, Bertram, UD, EE.....Seattle
 Axwell, Frances I, LD, Sci.....Bellingham
 Ayer, Hurley Russell, LD, Bus.....Seattle
 Ayers, Dorothy, UD, LA.....Kirkland
 *Ayers, Leland S, Unc, LA, San Francisco
 Ayers, Ethel LD, LA.....Olympia
 Ayers, Pearl, UD, Sci.....Wapato
- Babbitt, Frederic, LD, Eng.....Seattle
 Babcock, Mary E, LD, Sci.....Seattle
 Bachelor, Robert W, Grad.....Tacoma
 Backer, James, LD, EE.....Seattle
 Bacon, Katharine R, LD, LA.....Seattle
 Baes, Florence A, UD, Bus.....Seattle
 Bahl, Albert J, Bus.....Seattle
 Bailey, Arthur, LD, Bus.....Seattle
 Bailey, Dorothy A, LD, Sci.....Walla Walla
 Bailey, Dorothy B, LD, Sci.....Seattle
 *Bailey, Ellsworth B, LD, EE.....Tacoma
 Bailey, Harriet R, LD, LA.....Seattle
 Bailey, James M, 2nd Law.....Seattle
 Bailey, Katharine A, LD, LA.....Seattle
 Bailey, Oscar H, Spec.....Riverside, Cal
 Bailey, Ruth L, LD, LA.....Seattle
 Bailey, Theodora Abbott, UD, Sci.....Seattle
 Bailey, William L, 2nd Law.....Seattle
 Baillie, Provis M, UD, LA.....Seattle
 Baillie, Robt T, UD, Bus.....Seattle
 Bain, Grace, LD, Bus.....Seattle
 Bain, Harry, UD, Bus.....Hillyard
 Baird, Jean, LD, LA.....Seattle
 Baisden, Vernon McKee, Unc, LA, Wapato
 Bakeman, Frances, LD, Ed.....Snohomish
 Baker, Albert L, UD Eng.....Yakima
 Baker, Dorothy Ada, UD, LA.....Seattle
 Baker, Edward, LD, For.....Redmond
 Baker, Ella Louise, LD, Sci.....Puyallup
 Baker, Mrs. Ella M, Grad.....Seattle
 Baker, Jane, LD, LA.....Yakima
 Baker, Lee E, UD, LA.....Seattle
 Baker, Mary Katharine, LD, LA.....Seattle
 Baker, Ruth Evangeline, UD, Sci.....Seattle
 Baker, Samuel Garland, LD, ChE.....Seattle
 Baker, Ward Bus.....Weston, Ore
 *Balch, Wilbur L, Unc, Bus.....Greely, Col
 Baldwin, Clarence Henry, UD, Bus.....Alma
 Ball Philip K, LD, Bus.....Seattle
- Ball, Rollyn J, UD, Bus.....Seattle
 Ballard, Louise, LD, FA.....Seattle
 Ballard, Ralph E, LD, Bus.....Great Falls, Mt
 *Balle, Alfred, Sp, Sci.....Seattle
 Baltazar, Emilio, LD, Sci.....Philippines
 Balzer, Norb C, LD, Bus.....Spokane
 Balzer, Walter W, LD, Bus.....Spokane
 Bamford, Ruth, LD, FA.....Seattle
 Bancroft, Cecyl, LD, Bus.....Everett
 Banker, Gordon, LD, Bus.....Winthrop
 Banker, Helen D, UD, Ed.....Winthrop
 Banks, Amy, LD, FA.....Seattle
 Banks, Hugh Thomas, UD, LA.....Seattle
 Baptista, Nicolas, LD, CE.....Philippines
 Barberis, Albert Eugene, LD, Min.....Seattle
 Barbour, Bernatta B, Unc, LA.....Seattle
 Barclay, Elizabeth, UD, LA.....Tacoma
 Barclay, Maisie, LD, Sci.....Seattle
 Barclay, Maisie, LD, LA.....Ontario, Cal
 Bardanson, Otto W, UD, Ed.....Blaine
 Bardon, Bardon A, LD, LA.....Seattle
 Bardon, Guy John, LD, LA.....Seattle
 Barker, Robert Williams, LD, EE.....Seattle
 Barker, Stuart Douglas, 2nd Law Seattle
 Barlow, Marie, LD, Ed.....Issaquah
 Barlow, Marie, LD, Ed.....Bellingham
 Barnes, Beatrice W, LD, Sci.....Seattle
 Barnes, Frances Jane, UD, LA.....Tacoma
 Barnes, George H, LD, For.....Rossland, B C
 Barnes, Ruth Mabel, Unc, LA.....Salem, Or
 Barnett, Mack F, LD, Sci.....Tacoma
 Barnett, Neil Mary, Grad.....Bellingham
 Barnhisel, Arthur H, UD, For.....Seattle
 Barquist, Eva M, UD, Sci.....Seattle
 Barquist, Walter Conrad, LD, Min.....Seattle
 Barrat, Boris, Unc, Min.....Seattle
 Barret, Ada La Rue, LD, Ed.....Hillyard
 Barrett, Marshall Newton, LD, LA.....Seattle
 Barritt, Nan M, LD, LA.....Seattle
 Barron, Dale Herbert, LD, Phar.....Seattle
 Barron, F Dorothy, LD, FA.....Seattle
 Barrows, Eleanor, LD, LA.....Kake, Alaska
 Bartels, Louise Grace, LD, LA.....Seattle
 Barthelemy, M Lillian, LD, LA.....Seattle
 Bartholet, Wm Lewis, Unc, Eng.....Seattle
 Bartholomew, Wayne L, LD, BA.....Seattle
 Bartine, Wesley B, LD, LA.....Seattle
 Bartlett, Clara, UD, LA.....Seattle
 Bartlett, Frederick A, UD, For.....Boise, Ida
 Bascom, Hartzell W, LD, LA.....Monroe
 Bashey, Elmer, LD, ME.....Tacoma
 Bashor, Thurston C, LD, LA.....Kelso
 Bassett, Samuel Bitar, Unc, Law.....Seattle
 Bassford, Francis A, Jr, Unc, Bus.....Seattle
 Batcheller, Elva L, Grad.....Seattle
 Bateson, Mildred M, LD, Sci.....Olympia
 Batson, Mabel A, Unc, Ed.....Seattle
 Batwell, Edward Eaton, LD, Bus.....Seattle
 Bautista, Marcelino, LD, Ed.....Philippines
 Baxter, Roscoe, LD, Bus.....Walla Walla
 Bayless, Marion, LD, LA.....Seattle
 Bayley, Madeline V, LD, LA, John Day, Or
 Bayley, Nancy, UD, Sci.....Seattle
 Baylis, Charles A, UD, LA.....Spokane
 Bazzett, Hamilton S, UD, Bus.....Seattle
 Bazzett, Marion Spalding, LD, LA.....Seattle
 Beach, Leota M, LD, LA.....Seattle
 Beager, Irma, UD, Ed.....Richmond, Beach
 Beager, Laura, Unc, Bus.....Richmond Beach
 Beal, Bernice, LD, LA.....Seattle
 Beall, Harold G, Spec.....Victoria, B C
 Beall, Harry Newell, UD, Bus.....Raymond
 Beamer, H Norland, LD, Bus.....Haley, Ida
 Bean, Leonard G, Unc, Law.....Walla Walla
 *Beardslee, Will G, Unc, Law.....Bothell
 Beaver, Gladys, LD, LA.....Marysville
 Bechen, Helen, LD, FA.....Hillsboro, Or
 Beck, Dorothy, LD, LA.....Boise, Ida
 Beck, Elva Emmeline, LD, LA.....Seattle
 *Beck, Harry G, LD, Sci.....Seattle

Beck, N Bramlette, LD, LA.....	Seattle	Bigby, Valley, LD, FA.....	Tacoma
Beck, Jean, LD, LA.....	Seattle	Bigelow, Dwight E, LD, Bus....	Payette, Ida
Beck, Otto Franklin, Spec.....	Seattle	Bigelow, Edris, UD, Bus.....	Edmonds
Beck, William H, LD, Bus.....	Seattle	Biggs, M Catherine, UD, FA.....	Seattle
Beckerjeck, Rozella, LD, LA.....	Seattle	Biggs, Lodie, UD, Phar.....	Seattle
Beckman, Jewel Melba, Unc, FA....	Asotin	Bille, Margaret Jane, UD, Ed.....	Tacoma
Beckwith, Edris, UD, FA.....	Seattle	Bille, Warren G, LD, Eng.....	Tacoma
Beckwith, S Vilas Jr, UD, Bus....	Seattle	Billesbach, Martin M, LD, LA....	Winlock
Beddow, Elizabeth H, LD, FA.....	Seattle	Billings, Charles N, LD, CE.....	Seattle
Beebe, Marion Iva, LD, FA.....	Seattle	**Bilyen, Harlan Dale, Sp, Bus....	Seattle
Beede, Alan F, LD, Bus.....	Seattle	Bindon, Leonard W, LD, FA.....	Bellingham
Beeler, Donald T, UD, Sci.....	Seattle	Bingham, Blanche Irene, LD, LA....	Seattle
Beers, Norman A, LD, Bus.....	Seattle	Bingham, Florine, LD, FA.....	Seattle
Beeser, Arnold R, 1st Law.....	Seattle	Bingham, Robin Adair, LD, Sci..	Pt Angeles
Beeser, Raymond Louis, LD, FA....	Seattle	Bingham, Selwyn Alfred, UD, CE....	Seattle
Belgum, Valborg Edna, Unc, LA....	Seattle	Bircher, Donald O, Spec..	Minneapolis, Minn
Bell, Frank N, LD, Bus.....	Boise, Ida	**Bishop, Theodore R, LD, LA....	Clarkston
Bell, James E, LD, Phar.....	Port Townsend	Bishop, Vivian Eleanor, LD, Sci....	Everett
**Bell, James M, Sp, Fish.....	Seattle	Bissett, Clark P Jr, 1st Law.....	Seattle
Bell, John Karl, 3rd Law.....	Seattle	Bitner, Ella, UD, Sci.....	Kellogg, Ida
Bell, Leslie Curtis, LD, CE.....	Bellingham	Bjorkman, Frank W, Grad.....	Tacoma
Bell, Mildred, LD, LA.....	Yacolt	Bjorkquist, Enoch Joseph, UD, LA..	Spokane
Bell, Ward Y, LD, EE.....	Port Angeles	Black, Hilzageath, UD, LA.....	Ellensburg
Bell, Wyloha, 1st Law.....	Seattle	Black, John A, LD, EE.....	Wenatchee
Belstad, Walter C, UD, Sci.....	Seattle	Black, Myron Watt, UD, Ch E....	Spokane
Bender, Edwin Brown, Unc, Bus....	Tacoma	Black, Ruth U, LD, Sci.....	Port Angeles
Bender, Nathaniel B, LD, LA.....	Tacoma	Blackburn, Mildred, UD, LA....	Camp Lewis
Bendetson, Selma, LD, LA.....	Aberdeen	Blain, Edith M, LD, LA.....	Seattle
Benecke, Clarence, LD, LA.....	Seattle	Blain, Edward Linn Jr, UD, Bus..	Seattle
Benedum, Darwin Marx, LD, Sci....	Greenacres	Blain, James A, Unc, Law.....	Seattle
Benham, Dorothy, LD, LA.....	Seattle	Blaine, Leques H, LD, FA.....	Seattle
Benjamin, Bernice, LD, LA.....	Seattle	Blair, Birdie, LD, Sci.....	Spokane
Benjamin, George T, LD, Min.....	Vancouver	Blake, Beatrice, LD, Sci.....	Berkeley, Cal
Bennett, V Bruce, LD, Ed.....	Seattle	Blake, Emille Isabelle, LD, LA....	Aberdeen
Bennett, Constance, LD, Bus.....	Seattle	Blake, Harvey Dalton, LD, LA....	Wenatchee
Bennett, Dwight Goodwin, LD, LA..	Seattle	**Blake, Joseph R, For.....	Seattle
Bennett, A Lee, Grad.....	Seattle	Blanchard, Bess E, LD, LA.....	Pt Orchard
Bennett, Lillian V, LD, Sci.....	Colfax	Blando, Patricio, LD, LA.....	Seattle
Bennett, Marjorie, UD, LA.....	Chehalis	Bliss, Jane Hatley, LD, FA.....	Seattle
Bennett, Richard Francis, UD, LA..	Seattle	Block, Josephine, LD, LA.....	Seattle
Bennetts, Alice L, LD, LA.....	Tacoma	Blogg, Ainsworth, UD, LA.....	Seattle
Bennie, Alice Annie, UD, FA.....	Stanwood	Blomquist, Louis E, LD, Bus.....	Seattle
Benson, Clarence Wm, UD, LA.....	Spokane	**Blomquist, Roy W, LD, Bus....	Hogulam
Benson, Richard, LD, LA.....	Seattle	Blossom, Gerald Edward, LD, Bus..	Seattle
Benson, Warren E, UD, Bus.....	Seattle	Bloxom, John M, LD, LA.....	Seattle
Benson, Willis C, UD, Eng.....	Seattle	Blue, Eugenia, LD, LA.....	Seattle
Bentley, Nora Mulock, LD, Phar....	Seattle	Blue, Myriam W, Unc, Sci.....	Seattle
Bentley, Otto S, LD, Bus.....	Lynden, R. 2	Blue, Ralph Gihlams, LD, LA....	Sturgis, Mich
Benton, Ruth, LD, LA.....	Seattle	Blum, Signor W, LD, Bus.....	Spokane
Berelter, Marvel, LD, LA.....	Seattle	Blumberg, Frank Eagan, LD, ME....	Seattle
**Berg, Ferdinand, Phar.....	Seattle	Boardman, Mary, LD, LA.....	Tacoma
Berg, Gunnar Hansen, UD, Ed.....	Seattle	Bock, Edna, LD, Bus.....	Seattle
Berg, Henry R, UD, ME.....	Seattle	Bode, Charlotte, Spec.....	South Bend
Berg, H Margaret, LD, Ed.....	Seattle	Bogardus, Helen, UD, Sci.....	Seattle
Berg, Lela B, LA.....	Seattle	Boggs, Thelma Viola, LD, LA.....	Seattle
Berglund, Theos H, UD, Bus.....	Seattle	Bogolavlensky, Boris, LD, CE.....	Seattle
Berglund, Myrtle, UD, LA.....	Tacoma	Bogolavlensky, Gleb, LD, LA....	Seattle
Berglund, N William, LD, ME....	Newcastle	Bobart, Ruby M, LD, Sci.....	Seattle
Bergman, Charlotte, UD, Ed.....	Seattle	Bohn, Herman C, Grad.....	Seattle
Bergman, Harry, LD, LA.....	Seattle	Bohn, Rachel, LD, Sci.....	Seattle
Bergman, Eugene B, UD, Sci..	Port Angeles	Bohn, J Reamer, LD, Sci.....	Yakima
Bergner, Evelyn, LD, Sci.....	Seattle	Bole, John C, UD, Bus.....	Seattle
Bergstrom, Conrad E, LD, FA.....	Hogulam	Bole, Mildred Hill, UD, Ed.....	Seattle
Bergstrom, Theo, LD, EE.....	Seattle	Bollinger, John Clayton, 2nd Law..	Methow
Berolaki, Edward M, LD, LA....	Bellingham	Bollinger, Morris A, 1st Law.....	Methow
Berry, Elsa, LD, Sci.....	Portland, Or	Bollam, Darrell C, LD, Sci.....	Seattle
Berry, Grace, LD, LA.....	Seattle	Bolsover, C Stanford, LD, Bus....	Seattle
Berry, Helen, LD, Bus.....	Seattle	Bolstad, Bernard, LD, FA.....	Pasco
Berry, James J, LD, ME.....	Puyallup	Bolton, Edwin, UD, ME.....	Seattle
Berry, Roy Neil, LD, CE.....	Tacoma	Bomstead, Edward S, UD, ME....	Tacoma
Berst, Charles A, UD, Jour..	Portland, Or	Boni, John Angelo, LD, Min.....	Issaquah
Bertelson E B, LD, Bus..	Albert Lea, Minn	Bonnell, Jenness Mildred, UD, FA..	Tacoma
Best, Eric Clifton, LD, LA.....	Seattle	Bonner, Pearl, UD, Ed.....	Centralia
Bethel, Frederick Bell, LD, LA....	Spokane	Bonnett, Howbert B, UD, Eng.....	Seattle
Bettner, Virgil O, LD, Sci.....	Anacortes	Booker, Matilda Fay, LD, Ed.....	Seattle
Betts, Eilas A, Spec.....	Seattle	Booker, Paul Estle, LD, EE.....	Seattle
Bever, James, Grad.....	Bellingham	Roone, Julia Louise, LD, Sci.....	Seattle
Bewell, Blanche, Lillian, LD, Bus..	Seattle	Booth, Earl L, LD, Sci.....	Burlington
Bewley, Ruth Lynette, LD, LA....	Seattle	Borglin, Jos M, UD, ChE.....	Seattle
Bialkowsky, J Maurine, LD, LA....	Seattle	Borland, Gretchen M, LD, FA.....	Seattle

Borland, W J, Spec.....	Seattle	Brotnov, Marguerite, UD, Ed....	Bellingham
Borrow, Dorothy E, LD, LA.....	Seattle	Broward, Ella, LD, LA.....	Seattle
Borrow Martha, LD, LA.....	Seattle	Brower, Ora M, LD, FA.....	Seattle
Borst, Joseph O, LD, Eng.....	Centralia	Brown, Adelaide Grace, LD, LA.....	Seattle
**Borst, Sylvia, FA.....	Seattle	**Brown, Barton Wright, UD, CE.....	Seattle
Borver, Robert Johnson, Unc, LA.....	Seattle	Brown, M Catherine, LD, LA.....	Selah
Boudy, O Milburn, LD, Ed.....	Seattle	Brown, Cecil Clark, LD, Sci.....	Dayton
Boutelle, Virginia S, LD, LA.....	Seattle	**Brown, S Darden, Bus.....	Seattle
Bowden, Keble Elsworth, LD, Bus.....	Seattle	Brown, Davenport J, LD, Eng.....	Sumas
**Bowen, Albert H, ChE.....	Seattle	Brown, Dorothea Madge, LD, FA.....	Seattle
Bowen, Frank Herbert, UD, Ed.....	Montesano	Brown, Edda Virginia, LD, LA.....	Tacoma
Bowen, William E, LD, Bus.....	Spokane	Brown, Florida, LD, LA.....	Tacoma
Bower, Donald Duane, LD, Bus.....	Centralia	Brown, Francis M, 2nd Law.....	Seattle
Bower, Phyllis M, LD, Ed.....	Seattle	Brown, Grace Lucille, LD, Phar.....	Seattle
Bowman, Beulah, UD, Sci.....	Seattle	Brown, Harold G, Unc, Phar.....	Ridgefield
Bowman, Donald, LD, For.....	Seattle	Brown, Harry A D, LD, Bus.....	Tolt
Bowman, Vernon H, LD, Eng.....	Seattle	Brown, Henry James, LD, LA.....	Seattle
Bowman, William.....	Mabton	Brown, Lolo-Mae, LD, LA.....	Alderwood Manor
Bowman, William, LD, LA.....	Seattle	Brown, Lorna E, UD, LA.....	Portland, Or
Boyd, Esther, LD, LA.....	Seattle	Brown, Lurline, UD, LA.....	Seattle
Boyd, Robert J, LD, Min.....	Stellacoom	Brown, Margaret O, LD, Bus.....	Seattle
Boyer, Vera, UD, LA.....	Portland, Or	Brown, Marguerite L, LD, Bus.....	Seattle
Boyer, Walter O, LD, FA.....	Yakima	Brown, Martha, LD, Bus.....	Seattle
Boyer, Margaret, UD, LA.....	Portland, Or	Brown, Martin, LD, CE.....	Seattle
Boyle, Gordon Lovett, LD, Bus.....	Everett	Brown Minnie J, LD, LA.....	Seattle
Boyle, Joseph W, LD, LA.....	Tacoma	Brown, Richard A, LD, Bus.....	Spokane
Boynton, Fred Richard, LD, LA.....	Seattle	Brown, Sarah, LD, Bus.....	Seattle
Brackett, Leroy W, LD, Eng.....	Yakima	Brown, Stewart H, LD, Bus.....	Pt Angeles
Bracken, Harold A, LD, Phar.....	Seattle	Brown, Warren Jr, LD, LA.....	Tacoma
Bradford, Caty J, LD, Phar.....	Seattle	Brown, Wm W, LD, Bus.....	Great Falls, Mt
**Bradford, Denman F, Bus.....	Seattle	Browne, Clarence H, LD, Bus.....	Seattle
Brady, John L, LD, Bus.....	Seattle	Browne, Karl M, LD, Bus.....	Wenatchee
Bradon, E Wynne, LD, Sci.....	Seattle	Brownfield, Dorothy, LD, LA.....	Phoenix, Ariz
Bragg, George Tully, LD, Bus.....	Seattle	Brunner, Gertrude, LD, FA.....	Seattle
Brainard, Silas A, LD, Bus.....	Seattle	Bryan, Clarence, LD, Bus.....	Seattle
Brassington, Dorothy H, LD, LA.....	Seattle	Bryan, Clarence W, LD, Bus.....	Seattle
Bratlin, Nolla M, LD, Bus.....	Belmont, Cal	Bryan, Collis C, Unc, CE.....	Dayton
Bratvold, Ellef, Spec.....	Seattle	Bryan, Elizabeth J, LD, LA.....	Seattle
Braum, Paul J, UD, ME.....	Edwall	Bryan, Helen Robeson, LD, FA.....	Seattle
Bray, Frank Nathan, LD, Bus.....	Seattle	Bryan, James W Jr, UD, LA.....	Seattle
Bray, J Harold, LD, Bus.....	Seattle	Bryan, Kathryn, LD, LA.....	Seattle
Bray, Ruth Arvesta, LD, LA.....	Seattle	Bryan, Wilmer Davenport, LD, For.....	Olympia
Brayzell, Thomas, LD, Bus.....	Seattle	Bryant, Arthur C, LD, EE.....	Ketchikan, Aka
Braxler, Donald H, LD, Bus.....	Seattle	Bryant, Mildred, LD, LA.....	Seattle
Breakey, Forrest, LD, Bus.....	Bellingham	Bryce, Gertrude Amy, UD, LA.....	Victoria, BC
Bregg, Carl W, UD, ME.....	Seattle	Buchanan, Iva Luella, Grad.....	Seattle
Bregg, Dorsey A, LD, EE.....	Seattle	Buchanan, Lorna May, LD, LA.....	Clear Lake
Brehm, Gretchen, UD, Bus.....	Seattle	Buchanan, Sara Gene, UD, Ed.....	Cheney
Brengan, Samuel McClure, UD, ME.....	Seattle	Buchanan, Virginia, LD, LA.....	Spokane
Brennan, Robert A, LD, Bus.....	Seattle	Buck, Margaret, LD, LA.....	Seattle
Bressler, Dorothy, LD, LA.....	Seattle	Buckinger, Clarence, LD, LA.....	Seattle
Brethorst, Alice B, UD, Ed.....	Seattle	Buckingham, James R, Spec.....	Anburn
**Brewer, Glenn E, LD, LA.....	Seattle	Buckley, Harry Booth, LD, CE.....	Seattle
Bricker, John Paul, LD, For.....	Seattle	Buege, Walter, LD, EE.....	Chehalis
Bridgeman, Glenn Harvey, LD, Bus.....	Seattle	Buerk, Louise Carolyn, UD, LA.....	Seattle
Bridgman, Alfred W, LD, Bus.....	Vashon	Budd, Irene, LD, Phar.....	Helena, Mont
*Bridston, Lydia, Nur.....	Seattle	Buffalo, Paul, Unc, LA.....	Seattle
Bridston, Olga, UD, Ed.....	Seattle	Buhl, Frances Helen, LD, Ed.....	Seattle
Brier, Howard, LD, Bus.....	Everett	Bulkeley, Josephine M, Grad.....	Seattle
Briggs, Clifford M, LD, EE.....	Bremerton	Bullock, Cecil F, LD, Ed.....	Seattle
Briles, Gerald W, LD, Bus.....	Seattle	Bullock, Virgil W, LD, CE.....	Olympia
Brinck, Stephen M, Grad.....	Seattle	**Bulmer, Geo A, LD, Sci.....	Payette, Ida
Bringhurst, Alice C, UD, LA.....	Seattle	Bundy, Margaret Macauley, LD, J.A.....	Seattle
Bringle, Ellen, UD, LA.....	Ypsilanti, Mich	Bungay, Vaughn, LD, Bus.....	Spokane
Brink, Earl Herbert, LD, Bus.....	Tacoma	Bunker, Stanley, LD, For.....	Seattle
Brix, Dale Russell, LD, Sci.....	Monroe	Burbank, Myrtle, LD, LA.....	Seattle
Brockman, Blaine, Unc, Law.....	Seattle	Burcham, Marie A, UD, LA.....	Seattle
Broder, Percy C, LD, Bus.....	Seattle	Burdick, Karl, LD, Bus.....	Seattle
Brodsakaya, Natalie, Unc, LA.....	Russia	Burgeson, Elma M, LD, FA.....	Seattle
Brogren, E, LD, Sci.....	New Westminster, B C	Burgess, Foster Hayes, LD, LA.....	Seattle
Brokaw, Charles A, UD, EE.....	Seattle	Burgess, Madeline, UD, FA.....	Pendleton, Or
Brownson, Ira L, Unc, Law.....	Seattle	**Burkman, Joel A, LD, Ed.....	Seattle
Brooke, Sallie, LD, LA.....	Tacoma	Burkman, Orpha, LD, Ed.....	Seattle
Brookins, Eloise W, LD, LA.....	Boise, Ida	Burleigh, Bess M, UD, Ed.....	Seattle
Brooks, Clarence R, LD, LA.....	Tacoma	Burmeister, E M, LD, FA.....	Kellogg, Ida
Brooks, Edward, LD, ME.....	Seattle	Burnett, Charles H, LD, LA.....	Hollywood
Brooks, Elizabeth R, LD, LA.....	Cashmere	Burnett, John A, UD, EE.....	Tacoma
Brooks, Helen L, UD, LA.....	Seattle	Burnett, Miriam L, LD, LA.....	Tacoma
Brooks, Sheldon, LD, ChE.....	Seattle	Burnett, Norman, LD, Bus.....	Chehalis
		Burnie, Donald A, UD, Bus.....	Yakima

Burns, Barbara B, LD, LA.....Seattle
 Burns, Malcolm Owen, LD, Eng....Seattle
 Burns, Malcolm O, LD, Bus...Kalispell, Mt
 Burns, Merle W, LD, Bus.....Seattle
 Burpee, Frances Helen, LD, Sci...Bellingham
 Burpee, Margaret M, UD, Bus....Bellingham
 Burrough, Edward L, UD, EE.....Seattle
 Burroughs, Muriel Adine, LD, Sci....Seattle
 Burroughs, Walter L, UD, LA.....Tacoma
 Burrows, Eleanor W, UD, LA.....Seattle
 Burroughs, Walter L, UD, LA.....Tacoma
 Burrows, William J, UD, Sci.....Chehalis
 Burrus, Adelyne M, LD, LA...Pocatello, Ida
 Burrus, Thurlow M, LD, Sci.....Spokane
 Bursell, Frances Imogene, UD, LA...Seattle
 Bursell, Margaret, UD, Ed.....Seattle
 Burston, Arthur W, LD, Phar.....Seattle
 **Burtis, J Lynn, Sp, Bus.....Portland, Or
 Burton, Clara Bell, LD, Sci.....Seattle
 Burton, Rupert S, LD, Bus.....Centralla
 Busby, Harrison W, LD, LA...Friday Harbor
 Bush, Elizabeth Pauline, LD, FA...Seattle
 Bush, Mrs. Helen T, Grad, Sci.....Seattle
 Bush, I Marian, LD, Sci.....Vancouver
 Bush, Lyle K, UD, LA.....Bay Center
 Bushee, Alice, LD, LA.....Seattle
 Bushell, Lydia, LD, Sci.....Seattle
 Bushell, Robert Jr, LD, LA.....Seattle
 Busse, Arthur B, UD, ChE.....Seattle
 Butcher, Fred J, UD, Bus.....Vashon
 Butler, M Philbrick, UD, CE.....Seattle
 Butler, Robert S, LD, CE.....Seattle
 Butler, Virginia F, Unc, LA.....Seattle
 Butler, William Tennant, LD, CE...Seattle
 Butt, Ferdinand H, LD, LA.....Seattle
 Rutt, F Mildred, LD, LA.....Seattle
 Butt, William H, LD, ChE.....Seattle
 Butterbaugh, G H, Grad.....Seattle
 Butterworth, Albert R, Bus.....Seattle
 Butterworth, Harry C, Fr, Eng.....Seattle
 **Button, Malcolm P, LD, Bus.Hood River, O
 Butts, Everett Owen, LD, LA.....Seattle
 Butts, Margaret Flynn, UD, LA.....Seattle
 Byerly, Oliver Finley, UD, For...Portland, Or
 Byers, Dorothy O, LD, LA.....Seattle
 Byers, Eleanor, LD, LA.....Everett
 Byers, Marshall S, UD, ChE.....Seattle
 Byers, Mary Helen, LD, FA.....Seattle
 Byers, Maurice T, LD, Bus.....Everett
 Byford, Annette Lee, LD, FA...Portland, Or
 Byles, Chester, LD, LA.....Melbourne
 Byrd, Evelyn L, UD, Bus.....Burns, Or
 Byrne, Kathryn, LD, Sci.....Seattle
 Byrne, Leon Kenneth, LD, Bus....Seattle
 Byrne, William Gilman, LD, CE...Edmunds
 Byron, Margaret, UD, LA.....Seattle
 Byron, Robert Lee, LD, Bus....Bellingham

Caballero, Salvador, LD, Bus.....Seattle
 Cain, Riley Willis, UD, Ed.....Spokane
 Cain, Russell A, LD, Phar.....Seattle
 Calder, Lester E, UD, For.....Montesano
 **Caldwell, D V, Unc, Bus.....Seattle
 Caldwell, Helen L, LD, LA...La Grande, Or
 Calhoun, Alma, UD, LA.....Seattle
 Calhoun, Charles E, LD, Law.....Tacoma
 Calhoun, Noel M, LD, CE.....Seattle
 Calkin, Harriet, LD, LA.....Seattle
 Calkins, Howard T, LD, Sci.....Kirkland
 Calkins, Ione J, UD, Sci.....Bremerton
 Callahan, Arthur H, LD, LA.....Seattle
 Callender, James A, UD, CE.....Colfax
 **Callender, Ralph H, LD, Sci.....Seattle
 Callison, Cecil P, LD, Bus.....Aberdeen
 Callison, Henry S, LD, Bus.....Aberdeen
 Callow, Doris, LD, FA.....Seattle
 Calvin, John T, LD, Bus.....Seattle
 Calvin, Samuel E, UD, ChE.....Mercer, Pa
 Cameron, Donald F, LD, BA...Victoria, B.C

Campbell, Alex, LD, Bus.....Seattle
 Campbell, Alice A, LD, FA.....Seattle
 Campbell, Alphonsus, LD, Sci.....Seattle
 Campbell, Caroline G, UD, LA.....Seattle
 Campbell, Chas J, Spec.....Spokane
 Campbell, Don S, LD, EE.....Spokane
 **Campbell, E W, 8d Law...Fayetteville, Ark
 Campbell, Earl F, UD, Bus.....Omak
 Campbell, Edward L, LD, Bus.....Seattle
 Campbell, Elsie, LD, LA.....Seattle
 Campbell, Helen D, LD, LA...Portland, Or
 Campbell, Ivan H, LD, EE...Rock Island, Ill
 Campbell, James A, LD, LA.....Seattle
 Campbell, J Addison Jr, UD, ChE.....Seattle
 Campbell, Lillian E, LD, FA.....Seattle
 Campbell, Mildred Marie, LD, Phar...Colville
 Campbell, Robert A, LD, Bus.....Everett
 Campbell, Willis L, UD, Bus.....Spokane
 Canfield, Iris F, UD, FA.....Seattle
 Canning, Matthew F, LD, EE...Butte, Mont
 Cannon, James E, Sp, Fish.....Colby
 Capen, Donald F, LD, Bus.....Yelm
 Capen, Ellery, LD, Bus.....Yelm
 Carbajosa, Vincent, UD, Bus....Philippines
 Carder, Ruth M, LD, LA.....Seattle
 Carey, Ruth Isabelle, UD, Bus.....Seattle
 Carlberg, Emily, LD, FA.....Seattle
 Carlberg, Frank, Sp, LA.....Seattle
 Carleton, Smith, LD, Ed.....Seattle
 *Carlson, Anna E, Nur.....Seattle
 Carlsen, Arthur G, UD, EE.....Tacoma
 Carlsen, Arthur B, Unc, Bus.....Bellevue
 **Carlsen, Carter J, LD, Min.....Spokane
 Carlson, Ebba, Unc, LA.....Tacoma
 Carlson, Florence, UD, Ed.....Seattle
 Carlson, Gladys May, LD, LA...Mt. Vernon
 Carlson, Hulda M, UD, Ed.....Glg Harbor
 Carlson, John A, LD, EE...Great Falls, Mont
 Carlson, Julia C, LD, LA.....Everett
 Carlson, Julia Tecla, LD, LA.....Seattle
 Carlson, Oscar Carl, LD, Phar.....Yakima
 Carlson, Oscar F, LD, ME.....Seattle
 Carlson, Theodore D, LD, Bus.....Yakima
 Carlson, Theodore David, LD, Bus...Everett
 Carlston, Kenneth S, LD, Bus.....Seattle
 Carlton, Harold S, LD, EE.....Seattle
 Carman, Helen B, LD, LA...Portland, Or
 Carmody, Walter R, UD, ChE.....Seattle
 Carney, Elvin P, LD, LA.....Seattle
 Carothers, Ralph D, Sp, Bus.....Seattle
 Carpenter, Edward L, LD, CE...Aberdeen
 Carpenter, Mary Jane, UD, FA.....Seattle
 Carr, Dugald MacDougall, LD, ChE...Seattle
 Carr, Eva S, UD, Phar.....Seattle
 Carr, George Watson, LD, Min.....Seattle
 Carr, Herbert H, LD, Eng.....Seattle
 Carroll, Frank S, UD, Eng.....Seattle
 Carroll, Murrell Jack, UD, Bus.....Seattle
 **Carroll, Nell W, Sp, Bus.....Seattle
 Carson, Catherine B, LD, Bus.....Seattle
 Carson, Gretchen, LD, Bus.....Seattle
 Carson, May Pearl, LD, LA.....Chewelah
 Carstens, Henry T, LD, Bus.....Seattle
 Carstens, Lillian, LD, FA.....Seattle
 Carter, Ben H, Spec.....Seattle
 Carter, Charles J, LD, Bus.....Seattle
 Carter, Edward Stewart, LD, LA...Seattle
 Carter, James Forrest, LD, FA...Seattle
 Carter, L M, LD, EE.....Friday Harbor
 Carter, Mary Frances, UD, Ed.....Elma
 Cartmell, Frances Lucile, LD, LA...Buna
 Cartwright, Dorothy, UD, LA.....Seattle
 Case, Austin F, UD, LA.....Seattle
 Case, A. Byron, LD, EE.....Seattle
 **Casey, Harry P, Sp, Bus.....Spokane
 Casey, Mary Helent, LD, FA.....Seattle
 Caskey, Ruth, LD, FA...Richmond Beach
 Cassels, Harry A, LD, Bus.....Seattle
 Cassidy, Margaret, Spec.....Seattle

Cassill, C. Harvey, LD. Bus.....	Spokane
*Castillo, Margaret, Nur.....	Havillah
Cater, Ray F., Unc. Law.....	Marlin
Cathcart, Edith Eleanor, LD. LA.....	Seattle
Cattle, Edith Agnes, LD. Sci.....	Colville
Caulkins, Alice Estelle, LD. LA.....	Everett
Cauvel, Orvel S., LD. ChE.....	Spokane
Cavanaugh, Ruth Lois, UD. Sci Dighton, Kas	
Cave, Clinton Robert, LD. Bus.....	Winslow
Cave, Floyd Augustine, UD. LA.....	Seattle
Cave, Roy C., UD. Jour.....	Seattle
Cavette, Max Hammelle, LD. Bus.....	Seattle
Cayton, Madge Revels, LD. Bus.....	Seattle
Cekada, Bogomu Emil, UD. Sci.....	Tacoma
Cekada, Martha Amelia, LD. Sci.....	Tacoma
Cell, Lanetta, LD, LA.....	Seattle
Chadbourne, Charles A., LD. Bus.....	Cresosote
Chalaire, Donald, LD. LA. New York City	
Chamberlain, Dorothy, Grad.....	Seattle
Chamberlain, Ewart H., UD. Bus.....	Spokane
**Chamberlain, Howard W., Sci.....	Seattle
Chambers, Horace James, UD. LA.....	Seattle
Champlin, Winifred E., UD. Sci.....	Manette
Chandler, Louise, UD. FA.....	Yakima
Chan, Yam, Unc. LA.....	Seattle
Chapman, Edith, UD. LA.....	Seattle
Chapman, Harold, LD, Sci.....	Tacoma
Chapman, John C., LD. Bus.....	Seattle
Chapman, Marjorie, UD. Sci.....	Harrington
Chappel, Winifred May, LD. LA.....	Seattle
Charles, Percy Baird, LD. Bus.....	Seattle
Charleston, William M., LD. ChE.....	Seattle
Charlesworth, Grace, LD, Sci.....	Bellingham
Charlton, Chase W., LD. ME.....	Seattle
Charroin, Ida R., UD. Ed.....	So. Bellingham
Chase, Jennie A., LD. Sci.....	Alderwood Manor
Chase, Warren L., LD. Bus.....	Yakima
Chastain, Thelma Harold, LD. FA.....	Seattle
Chen, Tung Pal, UD. Fish.....	China
Cheng, Pao Yuan, LD. Phar.....	China
Chess, Samuel T., LD. Phar.....	Seattle
Chester, Elsie Mabel, LD. Bus Kallispell, Mon	
Chilberg, Elmer N., UD. EE.....	Spokane
Chilberg, Ernest B., UD. EE.....	Spokane
Chaid, Helen, LD, UD.....	Seattle
Chinn, Mary L., LD. LA.....	Seattle
Chinn, Raleigh, LD. For.....	Seattle
Chinn, Wing Sam, UD. FA.....	Seattle
Chisholm, Dorothy, LD. FA.....	Seattle
Chittenden, Theodore F., LD. Bus.....	Seattle
Chitty, Lyman M., LD. EE.....	Everett
Chiu, Chun, UD. Ed.....	China
Choy, Doo Whan, UD. Min.....	Hawaii
Christensen, Clara M., UD. LA.....	Parkland
Christensen, Nels, LD. Bus.....	Seattle
Christianson, Luella, UD. Ed.....	Seattle
Christianson, Victor C., LD. LA.....	Everett
Christie, Amos U., LD. Sci.....	Seattle
Christoffersen, Raymond, LD. Sci.....	Tacoma
Christoffersen, William, LD. Sci.....	Seattle
Christopher, Ian Wesley, UD. Sci.....	Olympia
Christopherson, Andrew, LD. ChE.....	Spokane
Christopherson, Carl F., Unc. Law.....	Seattle
Christopherson, Walter C., LD. LA.....	Seattle
Church, Anna E., LD. Sci.....	Tacoma
Church, Richard A., LD. Eng.....	Seattle
Churchill, Doris, LD, LA.....	Ellensburg
Churchill, Eunice E., LD. FA.....	Ellensburg
Churney, Otto L., LD. Sci.....	Deming
Chute, Gordon H., LD. LA.....	Two Rivers
Clancy, Margaret P., LD. FA.....	Seattle
Clark, Alta Margaritta, LD. Sci.....	Seattle
Clark, Carroll C., UD. For.....	Kent
Clark, Donald L., LD. Bus.....	Seattle
Clark, Evva, LD. LA.....	Bellingham
Clark, George E., 3d Law.....	Everett
Clark, Helen Davis, LD. LA.....	Seattle
Clark, Howard A., UD. Bus.....	Seattle
Clark, Laura E., UD. Sci.....	Spokane Bridge
Clark, Louise Mae, LD. LA.....	Yakima
Clark, Lucile J., LD. Bus.....	Centralia
Clark, Mildred T., LD. LA.....	Seattle
Clark, Nelson Lee, UD, Bus.....	Seattle
Clark, Newman H., Unc. Law.....	Everett
**Clark, Paul B., LD. Eng.....	Wenatchee
Clark, Perry N., LD. Bus.....	Aberdeen
Clark, Stanley A., LD. EE.....	Centralia
Clark, T. Stuart UD. Bus.....	Dungeness
Clark, Vernice V., LD. FA.....	Seattle
Clark, Wendell W., UD. Bus.....	Seattle
Clarke, Donald W., LD. Bus.....	Bellingham
Clarke, Florence R., Grad.....	Olympia
Clarke, Harold, LD. CE.....	Seattle
Clarke, Lillian, LD. LA.....	Seattle
Clarke, Loretta L., UD. Sci.....	Auburn
Clarke, Mary L., LD. LA.....	Pendleton, Or
Clarke, Richard K., UD. Bus.....	Renton
Clarke, Robert W., LD. Bus.....	Olympia
Clarke, Samuel, Unc. For.....	Washington D C
Claterbos, Ricka, Unc. Bus.....	White Salmon
Clausen, Chester K., LD. CE.....	Seattle
Clausen, Wendell H., UD. Phar.....	Austin, Tex
Cleaver, Gertrude, LD. LA.....	Everett
Clelland, Isabelle M., LD. FA.....	Auburn
Clemans, Mary S., LD. LA.....	Alpine
Clemans, Irene Vivian, LD. FA.....	Clarkston
Clement, Andrew Wehr, LD. EE.....	Seattle
Clement, Frank J., LD. LA.....	Puyallup
Cleveland, Carl, Unc. Bus.....	Tacoma
**Clevenger, S. Vail, Bus.....	Blackfoot, Id
Clift, Inez M., UD. LA.....	Kalama
Clifton, James Harold, LD. Bus.....	Seattle
Clinch, Vernon Marlon, UD. LA.....	Seattle
Clithero, Raymond H., LD. Bus.....	Yakima
Clithero, Russell L., UD. Bus.....	Yakima
Clossom, Louise E., LD. LA.....	Seattle
Clough, Ray W., Grad.....	Seattle
Cloughley, Walter M., LD. Bus.....	Yakima
Coats, Florence, LD, Sci.....	Raymond
Coats, George F., LD. Min.....	Aberdeen
Coats, William R., LD. Bus.....	Seattle
Cobb, Genevieve C., LD. Sci.....	Seattle
Cobb, Maurice, UD. Bus.....	Wapato
**Cochran, Clarence F., Unc. For.....	Seattle
Cochran, Lyall B., UD. EE.....	Snohomish
Cochrane, Henry P., LD. ME.....	Seattle
Cochrane, Marvis, UD. Sci.....	Seattle
Cochrane, Roy, LD. LA.....	Seattle
Cockroft, Grace, LD. FA.....	Corning, Cal
Coe, Constance M., LD. LA.....	Seattle
Coffin, Arthur S., Unc. Bus.....	Seattle
Coffin, Henry L., LD. Bus.....	Seattle
Cohen, Philip, UD. ChE.....	Seattle
**Cohn, Eugene S., Unc. Bus.....	Seattle
Cohn, Lewis M., LD. Sci.....	Seattle
Cohn, Maxine A., LD. FA.....	Spokane
Colner, Gladys Edna, UD. Ed.....	Seattle
Coke, Martha Evelyn, LD. LA.....	Seattle
**Colburn, E. Lloyd, LD. CE.....	Seattle
Colby, Claribel, Unc. LA.....	Seattle
Cole, Cleo Gennette, UD. Sci.....	Seattle
Cole, Clinton Forrest, LD. FA.....	Seattle
**Cole, David E., LD. For.....	Seattle
Cole, Frances, LD. Sci.....	Everett
Cole, Gladys G., UD. FA.....	Seattle
Cole, Helene A., LD. LA.....	Seattle
Cole, Janice, LD. LA.....	Seattle
Cole, W. John, LD. LA.....	Seattle
Cole, Miriam, Grad.....	Seattle
Coleman, Clarence J., Grad.....	Everett
Coleman, A. Clyde, LD. Phar.....	Seattle
Coleman, Fred W., UD. Bus.....	Seattle
Coleman, Raymond W., UD. Bus.....	Renton
Coleman, Trevis B., LD. Bus.....	Kent
Coles, Mrs. Helen E., Sp. FA.....	Seattle
Coles, Paul D., Unc. Law.....	Seattle
Collard, Albert Edward, LD. Bus.....	Spokane
Collard, Benjamin, UD. Bus.....	Spokane
Collard, Harry E., UD. Bus.....	Spokane
Collett, Arthur Jr., LD. LA.....	Seattle

Collier, Helen, Grad.....Seattle
 Collins, Anna Mary, Grad.....Seattle
 *Collins, Edward D, Unc. Sci. Kirkland
 Collins, Elsie, LD, Bus.....Seattle
 Collins, Lee R, LD, Phar.....Seattle
 Collins, Margaret, UD, Ed.....Auburn
 Collins, Maria A, Grad.....Seattle
 Collins, W. Chapin, Grad.....Seattle
 Colter, Josephine H, LD, LA.....Seattle
 Colton, Jeannette, UD, FA.....Seattle
 Colvin, John, LD, EE.....Seattle
 Combes, Esther M, LD, LA.....Sidney, Mont
 Combs, Dorothy, LD, LA.....Tacoma
 Comings, Everett L, LD, EE.....Bremerton
 Compton, Harold, LD, LA.....Yakima
 Compton, Harry O, LD, EE.....Tacoma
 Compton, Merrill Eugene, LD, BA.....Seattle
 Condon, Harold, Unc. Bus.....Seattle
 Conger, John A, UD, EE.....Nezperce, Ida
 Conkey, Glen B, UD, Bus.....La Grande, Or
 Conklin, Robert H L, Sp, For.....India
 Conklin, Russell Perkins, LD, Bus.....Spokane
 Connor, Antoinette C, LD, LA.....Seattle
 Connor, Alleen, LD, LA.....Seattle
 Connor, Garland D, LD, Bus.....Spokane
 Conover, Charles Norman H, LD, LA Seattle
 Conrad, Frank Huesey, UD, ChE.....Seattle
 *Conroy, Edward W UD EE Anaconda, Mont
 Cook, Jo D, LD, LA.....Tacoma
 Cook, Richard H, LD, Sci.....Bellingham
 Cooke, Margaret Isabel, LD, LA.....Seattle
 Cooke, Miriam G, LD, LA.....Seattle
 Cooke, Philletus G, UD, LA.....Bellingham
 Cookingham, Marritt G, LD, EE.....Tacoma
 Cooking, Zoe L, LD, FA.....Seattle
 Coolidge, Alethea, LD, FA.....Seattle
 Coolidge, Emma, LD, LA.....Spokane
 Cooney, Doris M, LD, Bus.....Port Angeles
 Cooper, Helen S, UD, Ed.....Charleston
 Cooper, Margaret C, UD, LA.....Seattle
 Cooper, Rebecca, Grad.....Seattle
 Cooper, Roy, LD, Eng.....Seattle
 Copeland, May, UD, LA.....Seattle
 Copland, Nena M, LD, Ed.....Seattle
 Coppage, Thomas R, LD, Bus.....Seattle
 Coppinger, Homer G, Unc, Bus.....Echo, Or
 Corbett, A Hazen, UD, FA.....Yakima
 Corcoran, June, LD, FA.....Seattle
 Cordero, Rosaria, Grad.....Philippines
 Corkrum, Fred, LD, Bus.....Walla Walla
 Corlett, Thirza, UD, Bus.....Seattle
 Cornellus, Roland, LD, Bus.....Seattle
 Cornue, M. Donald, 3rd Law.....Selah
 Corskie, Florence B.....Seattle
 Corson, Kenneth P, LD, Min.....Issaquah
 Cortes, Rosaria T, LD, CE.....Philippines
 Cossar, Harold, LD, EE.....Port Angeles
 Coughlin, Paul J, LD, LA.....Spokane
 Coupe, Rhea, LD, Bus.....Seattle
 Coupez, Louis A, LD, Sci.....Seattle
 Coventry, Edwin James, LD, LA.....Seattle
 Covey, Roland J, LD, EE.....Auburn
 Covington, Duane M, LD, EE.....Seattle
 Cowan, Carol, LD, LA.....Seattle
 Cowan, Dorothy, LD, LA.....Vashon
 Cowan, James, LD, LA.....Puyallup
 Cowderoy, Iola Blease, LD, FA.....Blaine
 *Cowgill, V Myrtle, Nur.....Spokane
 Cowling, Harriet, LD, Sci.....Yakima
 Cowling, Merle, LD, Ed.....Port Angeles
 *Cowling, Owen S, LD, LA.....Spokane
 Cox, Bascom, LD, Eng.....Seattle
 Cox, Bernadine, LD, LA.....Seattle
 Cox, Gladys Mable, LD, LA.....Colfax
 Cox, Manning W, Grad.....Seattle
 Craig, Elizabeth M, LD, LA.....Helsson
 Craig, Miriam Scheetz, UD, Sci.....Seattle
 Cramer, Dwight, LD, Phar.....Centralia
 Cramer, J. Russell, LD, Ed.....Bellevue
 Cramlet, Clyde Myron, Grad.....Seattle

Crane, Lillian A, UD, LA.....Seattle
 Crane, Marlon A, LD, LA.....Seattle
 Craven, Margaret, LD, LA.....Bellingham
 Crawford, Dorothy B, LD, Sci.....Seattle
 Crawford, Wallace W, LD, Bus.....Seattle
 Crawford, W B, UD, FA.....Walla Walla
 Crawford, Wilhelmina UD, FA Walla Walla
 Crawford, W Randall, 2d Law.....Seattle
 Crawshaw, Arthur C, So. Eng.....Seattle
 Creamer, Una Lillian, Unc, Law.....Ferndale
 Creech, G S, LD, Min.....Seattle
 *Crim, Madison, Bus.....Seattle
 Crim, Winnifred, LD, LA.....Seattle
 Crimmins, Florence, LD, Sci.....Seattle
 Crippen, Nevil B, LD, LA.....Tacoma
 Crisler, Ray H, LD, Bus.....Spokane
 Cristman, Martha E, LD, Sci.....Seattle
 Crostad, Lewis, UD, EE.....Mt Vernon
 Crok, Eveline E, UD, Ed.....Alfalfa, Ore
 Cromwell, Harry Hardin, LD, Bus.....Monroe
 Cromble, Walter F, UD, For.....Olympia
 Cronin, Nona, LD, Bus.....Butte, Mt
 Cronk, Myron P, UD, Bus.....Seattle
 Crosby, Forrest, LD, Bus.....Seattle
 Crosby, Harold W, LD, Bus.....Seattle
 Crosby, S Miriam, UD, Sci.....Seattle
 Cross, Robert N, LD, Sci.....Seattle
 Crouch, Donna Leone, UD, Bus.....Seattle
 Crouley, M Beatrice, LD, LA.....Seattle
 Crowe, Malcolm, LD, Eng.....Seattle
 Crueger, Frank, Fr, Eng.....Seattle
 Crueger, Frank, LD, EE.....Seattle
 *Crumb, Joseph A, LD, Bus.....Seattle
 Crumley, Russel E, LD, Bus.....Spokane
 Crump, Leonard W, LD, ChE.....Tacoma
 Cruzen, Edward A, LD, Bus.....Seattle
 Culliton, J Estelle, LD, LA.....Seattle
 Culliton, John G, UD, EE.....Seattle
 Cultum, Gordon L, LD, EE.....Tacoma
 Cundiff, Velda Pauline, LD, LA.....Wenatchee
 *Cunningham, Allan L, LD, Bus.....Seattle
 Cunningham, Miss Creigh, UD, LA.....Everett
 Cunningham, Rosamond, UD, Bus.....Seattle
 Curl, Clinton D, UD, Sci.....Richland
 Curry, Altha Ferry, Grad.....Seattle
 Currie, Mary E, UD, Sci.....Cashmere
 Curtis, Frank Lewis, UD, Bus.....Seattle
 Curtis, Stanley W, UD, Phar.....Spokane
 Curtis, Whitney A, LD, Eng.....Seattle
 Curtiss, Verne E, UD, LA.....Grand Dalles
 Curzon, John J, UD, Min.....Seattle
 Cushman, Edward H, UD, Min.....Tacoma
 Cussac, Achille Clair, Unc, Bus.....Issaquah
 Cutler, Denzil A, Unc, EE.....Vashon
 Cutting, Julia W, LD, LA.....Seattle
 Cutts, Cecilia, LD, LA.....Seattle

Dagg, Harold M, LD, Bus.....Seattle
 Daggett, Annie R, UD, Sci.....Port Ludlow
 Dahl, Florence, UD, Sci.....Seattle
 Dahl, George Walter, Spec.....Seattle
 Dahl, Helen E, LD, Ed.....Seattle
 Dahlberg, Edith, LD, LA.....Seattle
 Dahlgreen, Evelyn, UD, LA.....Vega
 Daigh, Margaret L, LD, LA.....Kirkland
 Dailey, Erwin F, 2nd Law.....Seattle
 Dailey, Grace Olive, 1st Law.....Seattle
 Dakin, Helen Maud, Unc, Bus.....Seattle
 Dally, Katharine, UD, LA.....Seattle
 Dalquest, Carl Alexander, Jr, ME.....Everett
 Dalton, Edwin Herndon, LD, Bus.....Olympia
 Dalton, John C, UD, Bus.....Yakima
 Dalton, Ralph E, LD, Sci.....Spokane
 Daly, Milton J, UD, EE.....Ketchikan, Alaska
 Daly, William J Jr, 1st Law.....Pt Townsend
 Damerell, V Richard, UD, Sci.....Burlington
 Damm, Vernon, Unc, ME.....Seattle
 Damm, Theodore Harold, Unc, FA.....Seattle
 Damon, Dorothy, LD, Bus.....Seattle

- Danby, Leo Chandler, LD, EE.....Seattle
 Daniel, J Leland, LD, Bus.....Spokane
 Daniels, Eve, LD, Sci.....Puyallup
 Danielson, Lillian C, UD, Ed.....Tacoma
 Danner, Earl Y, LD, EE.....Seattle
 Daquios, Sebastian, LD, Ed.....Philippines
 Dare, Earl, UD, Bus.....Seattle
 Dark, Carleton W, LD, LA.....Seattle
 Dark, Dorothy, LD, Sci.....Seattle
 Dark, Kathryn, LD, Sci.....Seattle
 Darling, Irene F, UD, LA.....South Bend
 Daugenspeck, Marion H, UD, Ed.....Seattle
 Daugherty, Anna M, UD, Sci.....Newport, Or
 Daugherty, Bernice E, LD, FA.....Seattle
 Daugherty, Iva A, LD, Ed.....Seattle
 Davenport, Miss Lesley E, LD, LA.....Seattle
 David, Emerson E, UD, Bus.....Seattle
 Davidson, Beth, UD, Sci.....Seattle
 Davidson, Dorothy B, LD, LA.....Seattle
 Davis, Elizabeth, LD, LA.....Opportunity
 Davis, Esther LD, Sci.....Seattle
 Davies, Gwyn O O, Unc, LA.....Cle Elum
 Davies, Lawrence M, LD, Sci.....Cle Elum
 Davies, Thomas Dayton, LD, Bus.....Seattle
 Davies, Trevor, LD, Bus.....Seattle
 Davis, Benjamin Franklin, LD, Bus.....Seattle
 Davis, Beryl W, LD, Bus.....Seattle
 Davis, Caleb F, LD, EE.....Seattle
 Davis, Cecil C, LD, Eng.....Seattle
 Davis, Dwight E, UD, Min.....Pt Orchard
 Davis, Ethel, LD, LA.....Seattle
 Davis, Eunice D, LD, LA.....Seattle
 Davis, Florence M, LD, LA.....Seattle
 Davis, Garnet M, UD, Bus.....Donald
 Davis, Helen Marjorie, LD, Sci.....Seattle
 *Davis, Inez Irene, Nur.....Pallades
 Davis, Kathryn S, LD, Sci.....Seattle
 Davis, Marjorie, LD, FA.....Boise, Ida
 Davis, Marjorie Evelyn, LD, LA.....Seattle
 Davis, Mary Aleen, UD, Sci.....Bellingham
 Davis, Mercie Irene, LD, LA.....Donald
 Davis, Paul Bryan, LD, EE.....Endicott
 Davis, Paul M, LD, Bus.....Denver, Col
 Davis, Ralph J, UD, Bus.....Seattle
 Davis, Ray N, LD, Ed.....Buhl, Ida
 Davis, Thornton J, LD, Bus.....Seattle
 Davis, Vera, LD, LA.....Renton
 Davis, Vernon, LD, Bus.....Walla Walla
 Davis, Wilbur Lee, LD, Bus.....Portland, Or
 Davis, William R, LD, Bus.....Seattle
 Davison, Elmer E, UD, Bus.....Seattle
 Davison, James, LD, Bus.....Seattle
 Dawe, Ernest, UD, ME.....N Westminster, BC
 Daws, Ethel Leoto, LD, Ed.....Kirkland
 Dawson, Lee, LD, EE.....Seattle
 Dawson, Terence T, LD, Sci.....Seattle
 Day, Evelyn Mae, LD, Sci.....Richmond Beach
 Day, Margaret E, UD, Jour.....Clarkston
 Deaderick, Kelly D, 1st Law.....Halfway, Or
 Dean, Edward E, LD, EE.....Olympia
 Dean, Floyd Merlin, LD, Sci.....Bellingham
 Dean, Paul, LD, Bus.....Seattle
 Dearle, Katharine, LD, LA.....Everett
 Deer, Gladys F, UD, LA.....Seattle
 Degering Clara O, Unc, Ed.....College Place
 Delkin, James L, LD, LA.....Seattle
 Detken, Carl R, LD, EE.....Bellevue
 Deets, Walter G, UD, Bus.....Bellingham
 De Force, Helen, LD, LA.....Spokane
 *De Grief, Leroy, 2nd Law.....Colville
 Dekker, Kate, LD, Ed.....Soap Lake
 De Lancy, Margaret, LD, Bus.....Seattle
 Delaney, Margaret, LD, FA.....Seattle
 De Lancy, Henry L, LD, Bus.....Richmond, Mt
 de la Pole, Dorothy, UD, LA.....Seattle
 de Leon, Esteban, LD, Sci.....Philippines
 Deming, George M, UD, ChE.....Seattle
 Dempsey, Paul Revere, LD, Sci.....Seattle
 Demuth, Orin A, UD, EE.....Seattle
 Denney, Charles R, 1st Law.....Everett
 Denning, Alice Margaret, LD, Sci.....Portage
 Dennis, Harrison, Unc, Law.....Idaho Falls, Id
 Dennis, Margaret, UD, LA.....Seattle
 Denny, Marion K, LD, FA.....Seattle
 *Denny, Merle W, Bus.....Seattle
 DeRiemer, Robert P L D, Sci.....Spokane
 De Shazo, Melvin G, LD, LA.....Seattle
 DeShon, Marguerite, UD, LA.....Seattle
 Desmond, Mrs Gladys, LD, LA.....Seattle
 de Turenne, Leon A, Grad.....Seattle
 Dever, Clarence, LD, Sci.....Seattle
 Devers, DeEtte, LD, LA.....Seattle
 Devin, Paul, LD, For.....Seattle
 Devin, William F, 2nd Law.....Seattle
 DeVine, Harry E, LD, LA.....Kittitas
 Dewar, Duncan W, LD, Eng.....Manette
 Dewey, Bertha, LD, LA.....Seattle
 Dexter, Frances Etta, LD, LA.....Winslow
 Diaz, Arsenia E, LD, Sci.....Cabanatuan, P I
 *Dibb, Harold J, LA.....Great Falls, Mt
 Dick, Elma Martha, LD, FA.....Seattle
 *Dick, Everett, For.....Seattle
 *Dick, Roland S, Unc, LA.....Lewiston, Ida
 Dickerson, William E, Grad.....Seattle
 Dickinson, Charlotte L, LD, Sci.....Dayton
 Dickson, Robert W, UD, LA.....Portland, Or
 Dietz, Geo H, LD, Sci.....Seattle
 Dillabough, Helen E, LD, LA.....Okanogan
 Dillaway, Leonard G, LD, Sci.....Seattle
 Dillon, Roll N, LD, Sci.....Seattle
 Dimock, Everett P, LD, ChE.....Seattle
 Dimock, Stuart M, UD, CE.....Seattle
 Dimond, Lois Edith, LD, FA.....Spokane
 Dinges, Violet M, LD, Ed.....Seattle
 Dingle, Helen, UD, Bus.....Yakima
 *Dingley, Harvey M, Bus.....Seattle
 *Dinsmore, Stephen S, LD, LA.....Yakima
 *Dirks, Donald, UD, Fish.....Spokane
 Dishman, Catherine A, Unc, LA.....Camp Lewis
 Dittmore, W Chester, LD, CE.....Seattle
 Dix, Marion, LD, LA.....Seattle
 Dix, Peres Alvin, LD, Phar.....Seattle
 Dix, Ruth, LD, Sci.....Seattle
 Dixon, Barbara, LD, LA.....Battle Ground
 *Dixon, Clarence J, CE.....Creston, Tenn
 Dixon, Frank N, LD, Bus.....Tulsa, Okla
 Dixon, Wesley N, LD, Bus.....Battle Ground
 Dmatrjev, Boris, Unc, ME.....Seattle
 Dobbs, Charlotte M, LD, LA.....Seattle
 Dobbs, James S, Fr. Eng.....Seattle
 Dobson, Chris G,Seattle
 Dobson, George, LD, EE.....Renton
 Dodd, Harry LeRoy, LD, Ed.....Seattle
 *Dodd, Joseph F, LD, EE.....Seattle
 Dodd, Martha W, UD, Ed.....Bellingham
 Dodds, Watson H, LD, Bus.....Seattle
 Dodge, Estella Grace, UD, For.....Portland, Or
 Dodge, Florence F, LD, LA.....Tacoma
 Dodge, William P, LD, Eng.....Seattle
 Doheny, Harriet J, UD, Sci.....Seattle
 Dolan, Irene, UD, LA.....Kent
 Dolan, Margaret Mary, UD, LA.....Kent
 Doll, William D, Grad.....Milwaukee, Wis
 Domalanta, Fortunato A, LD, Bus.....Philippines
 Donahoe, Agnes M, UD, Ed.....Rosalia
 Donahoe, Eugene F, LD, Bus.....Elma
 Donahoe, Mary R, LD, LA.....Camp Lewis
 Donaldson, Mrs. Mary W, UD, LA.....Seattle
 Donley, Florence E, LD, LA.....Seattle
 Donley, Mabel Alice, UD, FA.....Seattle
 Donnell, W Howard, LD, EE.....Snodhomish
 Donovan, Theodore E, UD, ME.....Seattle
 Dore, Esther A, UD, Ed.....Seattle
 Doremus, Della Ellen, UD, Bus.....Seattle
 Dorman, George Robert, LD, EE.....Seattle
 Dorris, William W, F, LD, Bus.....Seattle
 Dose, Julia L, UD, Bus.....Seattle
 Dougherty, Ollie, Unc, Bus.....Seattle
 Douglas, Donald E, UD, Bus.....Seattle
 Douglas, Lucille, UD, FA.....Seattle

Doutrich, Stephen, LD, Min.....Spokane
 Dover, Leon David, UD, Bus.....Seattle
 Dowling, Barbara, LD, Sci.....Seattle
 Down, Andrew, UD, LA.....Lacey
 Downie, Ruth, LD, Sci.....Seattle
 Doyle, Edna May, UD, Sci.....Seattle
 Doyle, James O, LD, Sci.....Spokane
 Doyle, Leo A, LD, Sci.....Rossland, B.C.
 Doyle, Leona, UD, Bus.....Seattle
 Drager, Gertrude, LD, Ed.....Seattle
 Drake, Edward F, UD, EE.....Tacoma
 Dranga, Albert E, LD, Bus.....Seattle
 Draper, Isabel, LD, FA.....Seattle
 **Draves, Galen B, Bus.....Seattle
 Drentwett, Louis, LD, FA.....Seattle
 Drew, Donald Russell, UD, Bus.....Seattle
 Drew, Laura M, LD, Phar.....Lake Stevens
 **Driscoll, Edwin U, LD, Bus.....Seattle
 Driscoll, Eugene A, LD, LA.....Benton
 Drumheller, Joseph, LD, ChE.....Spokane
 D'Spain, Grace, UD, Sci.....Tacoma
 DuBois, Kinsley L, LD, LA.....Vancouver
 Ducassee, Mrs. Mabel L, LD, Ed.....Seattle
 Dudley, Chas F, LD, LA.....Seattle
 Dudley, Lila Adele, Grad.....Seattle
 Duffall, Esther, UD, Sci.....Tacoma
 Duffy, Thomas O, LD, EE.....Seattle
 Dugan, Helen J, LD, Sci.....Seattle
 Duggan, Miriam F, Unc, Sci.....Tacoma
 Dugdale, Harold F, LD, Bus.....Seattle
 **Dumett, Clem W, Bus.....Seattle
 Dunaway, Mary F, LD, LA.....Seattle
 Dunbar, Della B, LD, LA.....Yakima
 Dunbar, Clifford S, LD, Eng.....Seattle
 Duncan, Kenneth, LD, Eng.....Seattle
 Duncan, Patricia P, LD, LA.....Toppenish
 Duncan, Preston H, LD, Bus.....Seattle
 Duncann, Margaret, UD, LA, Red Bluff, Cal
 Duncannson, Harold B, Unc, EE.....Seattle
 Dunmore, Blanche, UD, LA.....Seattle
 Dunn, Alice, UD, LA.....Sunnyside
 Dunn, Arthur G, LD, LA.....Seattle
 Dunn, Beatrice, Grad.....Waterville
 Dunn, Charles S, LD, For.....Seattle
 Dunn, Edward Albert, LD, For.....Seattle
 Dunn, Frank M, LD, For.....Seattle
 Dunn, Helen M, UD, Sci.....Waterville
 Dunn, John J, 1st Law.....Seattle
 Dunn, Margaret Carol, LD, Ed.....Seattle
 Dunn, Mary B, LD, LA.....Seattle
 Dumphy, Helen C, UD, LA.....Walla Walla
 Dupar, Paul, LD, Bus.....Seattle
 DuFree, Ernest F, LD, Sci.....Tacoma
 Dupuis, Margaret, LD, Sci.....Seattle
 Durgin, Carey, LD, EE.....Enumclaw
 Durham, Mrs Irene S, LD, LA.....Seattle
 Durkee, Mary E, LD, LA.....Tacoma
 Du Ros, Berenice, LD, LA.....Bellingham
 Durrant, Dorothy A, LD, Sci.....Snohomish
 Dustan, Laura, LD, LA.....Clarkston
 Dutch, Dorothy E, LD, Sci.....North Bend
 Dutton, Gladys, UD, Bus.....Seattle
 Dutton, Harry John, LD, Bus.....Seattle
 Dutton, Virginia, Unc, Sci.....Seattle
 Dwyer, Kathryn Rita, LD, LA.....Rosalia
 Dye, Catharine H, LD, LA.....Davenport
 Dyer, Douglas W, LD, Sci.....Seattle
 Dyke, Joe C, LD, LA.....Seattle
 Dysart, Ada A, LD, Sci.....Seattle

Ebeling, Walter W, LD, Sci.....Burlington
 Eby, Roger I, LD, Eng.....Spokane
 Eckert, Viva M, LD, LA.....Vancouver, BC
 Ekhardt, Robert B, UD, Bus.....Enumclaw
 Eckmann, Ray L, UD, Bus.....Seattle
 Eckman, Richard, LD, LA.....Seattle
 Eckrem, Lillian Dagrun, Unc, Sci.....Seattle
 Eckstein, H, Unc, Bus.....Mountain Home, Ida
 Edades, Victorio C, UD, FA.....Philippines
 Edberg, Wendell Earl, 1st Law.....Bellingham
 Eddy, Erma Smith, LD, LA.....Seattle
 Eddy, Esther Irene, LD, Bus.....Seattle
 Eddy, Richard H, LD, For.....Olympia
 Edgell, Dwight, LD, EE.....Seattle
 Edgell, Hurst, LD, Phar.....Seattle
 Edgers, Newton W, LD, EE.....Seattle
 Edgerton, Ernest B, LD, Sci.....Seattle
 Edinger, Carter W, LD, LA.....Seattle
 Edler, Olof E, LD, FA.....Mt Vernon
 Edmonds, Frank Hall, LD, Eng.....Seattle
 Edmeades, Willard S, LD, Sci.....Seattle
 Edmonds, Robert H G, Grad.....Seattle
 Edson, Emily H, UD, Sci.....Bellingham
 Edson, William O, UD, Ed.....Bellingham
 Edwards, O Archie, LD, Bus.....Seattle
 Edwards, Charles H.....Lovilla, Ia
 Edwards, Dorothy L, LD, LA.....Seattle
 **Edwards, Douglas B, Eng.....Seattle
 Edwards, Eleanor B, LD, FA.....Seattle
 Edwards, Elizabeth, LD, LA.....Seattle
 Edwards, Esther, LD, LA.....Seattle
 Edwards, George W, LD, For.....Seattle
 Edwards, John W, LD, LA.....Seattle
 Edwards, Pauline, LD, LA.....Seattle
 Edwards, Robert, UD, Sci.....Seattle
 Edwards, Thelma L, UD, LA.....Seattle
 Eftfinger, Vivian, LD, FA.....Seattle
 Egtvet, O Percy, Unc, Bus.....Seattle
 Eholm, Helen, LD, Phar.....Seattle
 Ehrenberg, Eugene d'A Unc, Phar.....Ellensburg
 Ehrke, Ernest B, UD, EE.....Seattle
 Ehrke, Herbert, LD, Bus.....Seattle
 Ehrlich, Barbara, LD, LA.....Seattle
 Ehrlich, Dorothy O, UD, LA.....Seattle
 Ehrlich, Louise, LD, LA.....Seattle
 Elkelbermer, George C, LD, LA.....Wenatchee
 Elnaresen, Arthur S, LD, Ed.....Stanwood
 Eisenhower, Earl D, UD, EE.....Tacoma
 Elberson, Ruth, LD, LA.....Seattle
 Eldridge, Wesley R, LD, Bus.....Seattle
 Elford, Gertrude, UD, LA.....Seattle
 Elford, Marian A, LD, LA.....Seattle
 Elias, Frank, LD, For.....Seattle
 Eller, Arleta, LD, LA.....Seattle
 Ellertson, Homer K, LD, ME.....Brush Prairie
 Elliott, Clarence R, UD, Bus.....Kelso
 Elliott, Maxine B, LD, LA.....Seattle
 Elliott, Stanley, LD, LA.....Seattle
 Elliott, Louise M, LD, Sci.....Seattle
 Ellis, Coral E, LD, FA.....Seattle
 Ellis, Overton G Jr, LD, Bus.....Tacoma
 Ellis, Ruth Lee, LD, Ed.....Twin Falls, Ida
 Ellis, Samuel, Unc, ChE.....Waterville
 Ellis, Marlon V, LD, FA.....Bellingham
 Eliscott, Guy R, UD, Bus.....Sally, Ia
 Eltsroth, Ruth, UD, LA.....Buena
 Elvidge, Earle Charles, UD, ME.....Seattle
 Elwell, Marion M, LD, FA.....Seattle
 Elwell, Talmage F, LD, Bus.....Seattle
 Ellsworth, Paul T, Grad.....Seattle
 Emanuel, Ellen, LD, FA.....Seattle
 Embree, Harold B, LD, Phar.....Seattle
 Emery, Marianne, LD, FA.....Seattle
 Emme, J Margaret, LD, LA.....Seattle
 Emmons, Harold W, Unc, Law.....Portland, Or
 Encarnacion, Fidel P, LD, Eng.....Philippines
 Eng, Jack, Fr Eng.....Seattle
 Engel, Leo J, LD, For.....Jamestown, NY
 Enger, Bernice, LD, Sci.....Tacoma
 Enger, Olive M, UD, LA.....Tacoma

Eades, Herbert W, UD, For.....Vancouver BC
 Eagleson, Helen E, Grad.....Seattle
 Eagleson, Margaret, LD, LA.....Seattle
 Earnest, Robert R, LD, Ed.....Bothell
 **Easterbrook, W G, UD, Eng.....Pt Townsend
 Easterbrook, Wm B, LD, Bus.....Pt Townsend
 Eastman, Austin V, UD, EE.....Seattle
 Eastman, Fred S, LD, EE.....Seattle
 Eaton, Dorothy T, LD, LA.....Seattle

Englehorn, Ruth, UD, LA.....Spokane
 English, James D, LD, EE.....Seattle
 Enloe, Keith Moss, LD, Bus.....Spokane
 Enoch, Adam Harry, LD, LA.....Burton
 Epperson, Gladys M, LD, FA.....Seattle
 Epperson, Grace, LD, LA.....Seattle
 Erickson, Esther E, LD, LA.....Aberdeen
 Erickson, Lalla G, LD, LA.....Seattle
 Erickson, Lloyd G, LD, EE.....Bothell
 Erickson, Elisabeth E, LD, Ed.....Kent
 **Erickson, Orin H, Sp, Bus.....Pocatello, Ida
 Erickson, Phil K, LD, LA.....Seattle
 Erickson, Philip, LD, Bus.....Everett
 Erickson, Richard C, LD, Bus.....Edmonds
 Erickson, Samuel T, LD, LA.....Seattle
 Erickson, Sylvia P, UD, LA.....Seattle
 Erickson, Walden D, LD, ME.....Seattle
 Erickson, William P, UD, Bus.....Seattle
 Ericson, Earl E, LD, EE.....Seattle
 Ericson, Howard C, UD, Bus.....Tacoma
 Erickson, Edward, LD, Bus.....Seattle
 Erwin, Curtis Lincoln, LD, LA.....Seattle
 Erwin, Susan C, UD, LA.....Seattle
 Erwin, Wirth, Unc, ME.....Seattle
 Esary, James D Jr, LD, Bus.....Seattle
 Espino, Felix V, LD, OE.....Philippines
 Estes, Fred Jr, LD, OE.....Seattle
 Estey, John F, UD, Ed.....Bow
 Estey, Charles A, LD, Bus.....Seattle
 Eswell, Mansfield, LD, EE.....Seattle
 Etherington, Thomas J, LD, Min.....Elma
 Evans, Catherine, LD, FA.....Seattle
 Evans, Miller, LD, EE.....Seattle
 Evatt, Stanley E, LD, Eng.....Bell
 Evenson, Theo O, Unc, Ed.....Bremerton
 Everett, Blanche, LD, LA.....South Bend
 Everett, Donna Aileen, UD, Bus.....Seattle
 Everett, Mrs Elizabeth, UD, FA.....Seattle
 Everitt, Walter Herbert, UD, ME.....Seattle
 Everton, Clara M, Grad.....Edmonds
 Ewing, Henry Clarke Jr, LD, Bus.....Seattle
 Ewing, James Boyd, LD, Bus.....Bellingham
 Ewing, Lucile E, UD, LA.....Portland, Or
 Ewing, Margaret, LD, LA.....Seattle
 Eyster, Marian L, LD, LA.....Seattle
 Eymann, Lucile, LD, FA.....Seattle

Fabico, Emilio, LD, Bus.....Philippines
 Fahl, Jack Bernard, LD, Min.....Seattle
 Fairbanks, Adelaide L, UD, LA.....Yakima
 Fairbanks, Donald Dee, LD, Bus.....Yakima
 Fairservice, Harry C, UD, Bus.....Clallam Bay
 Fairservice, Hazel, LD, LA.....Clallam Bay
 Falk, Winona, UD, LA.....Seattle
 Falkoff, Emma, LD, LA.....Seattle
 Falkoff, Ernest, LD, LA.....Seattle
 Fall, James Davis, UD, EE.....Seattle
 Fall, Marr, LD, Bus.....Seattle
 Farquharson, F Burt, UD, Eng.....Seattle
 Farr, J Edgar, LD, LA.....Montesano
 Farr, Forest W, LD, Eng.....Seattle
 Farrar, Robert W, UD, LA.....Seattle
 Fassett, Edward, LD, EE.....Custer
 Fassett, John, LD, ME.....Custer
 Faubert, Florentine V, LD, LA.....Shelton
 Faulkner, Donald R, LD, Bus.....Olympia
 **Faulkner, Jack Henry, Eng.....Seattle
 Feek, Edward O, LD, Bus.....Seattle
 Feek, Richard, LD, Bus.....Seattle
 Feeney, Helen UD, Ed.....Seattle
 Felipe, Nemesio, UD, LA.....Philippines
 Felitz, Vernita C, UD, Ed.....Seattle
 Fellow, Fred Donald, Grad.....Seattle
 Fellows, Elouisa B, LD, Bus.....Bremerton
 Fendel, Sam Louis, UD, LA.....Spokane
 Fenko, Eric Dea, LD, Fish.....Anacortes
 Ferguson, Russell, UD, For.....Seattle
 Fernyough, Harold S, Unc, Bus.....Seattle
 Ferris, Ruth Merigold, LD, LA.....Seattle

Ferry, Edward, LD, LA.....Everett
 Ferryman, Henri, LD, ME.....Wenatchee
 Fewell, Dorothy, UD, Sci.....Minneapolis, Minn
 Fewell, Jeanette, LD, Sci.....Minneapolis
 Fey, Lester Paul, LD, FA.....Seattle
 Ficks, Amanda, LD, Bus.....Seattle
 Fiedler, Charles Jr, LD, Bus.....Newport
 Field, William E, LD, Bus.....Tacoma
 Fillion, Frances E, LD, LA.....Pt Angeles
 Fillion, Fred, UD, LA.....Pt Angeles
 Fillio, Paul, LD, Bus.....Seattle
 Filz, Mildred E, Grad.....Seattle
 Fine, Sam, LD, Bus.....Seattle
 Finke, Mabel, LD, LA.....Seattle
 Finlay, Dreda Dermda, LD, FA.....Seattle
 Finlay, Maxine, LD, LA.....Seattle
 Finley, Marjorie H, LD, LA.....Red Lodge, Mt
 Finn, Elmer G, LD, ME.....Prosser
 Finnegan, Frederick L, LD, Bus.....Bellingham
 Finnegan, F R, Bus.....Anacortes
 Finney, Ottmer T, UD, ChE.....Issaquah
 Fischer, Aiden Jackson, UD, Bus.....Seattle
 Fish, Kenneth G, Spec.....Seattle
 Fisher, David Elgin, Unc, Bus.....Edwall
 Fisher, Donald, LD, Bus.....Tacoma
 Fisher, Dorothy, LD, FA.....Manitou
 Fisher, Frank P Jr, UD, Phar.....Pt Angeles
 Fisher, Joy Grace, UD, FA.....Wallace, Ida
 Fisher, Myrtle E, UD, Sci.....Portland, Or
 Fisher, Walter Clifford, UD, Bus.....Spokane
 Fisher, Wm D, LD, LA.....Napa, Cal
 Fisk, Leah, LD, LA.....Kelso
 Fitch, John Manning, LD, ME.....Tacoma
 Fitzgerald, Florence M, LD, Bus.....Seattle
 Fitzgerald, Vernor J, LD, Bus.....Spokane
 Fitzgerald, Vida Elaine, LD, Phar.....Seattle
 Fitzmaurice, Dorothy E, LD, LA.....Seattle
 Fitzpatrick, George W, LD, EE.....Seattle
 Flack, Lena, LD, LA.....Seattle
 **Fladd, Everett J, LD, Bus.....Buffalo, NY
 Flagg, Paul McLeod, UD, ChE.....Seattle
 **Flanagan, A J, LD, LA.....Minneapolis, Minn
 Flanley, Mabel Gertrude, UD, Sci.....Seattle
 Flannigan, Fred L, LD, ME.....Seattle
 Flannigan, Bessie Jean, UD, LA.....Seattle
 Fleming, W A, LD, Bus.....Monroe
 Fletcher, Elizabeth B, UD, LA.....Seattle
 Fletcher, Frank P, Unc, Bus.....Seattle
 Fletcher, Gerald Robert, LD, ChE.....Seattle
 Fletcher, Ina Mary, UD, Sci.....Boise, Ida
 **Fletcher, James D, Grad.....Sheridan, Or
 Fletcher, Rose J, LD, LA.....Tacoma
 Fletcher, Winnifred, LD, LA.....Seattle
 **Flint, Gwen M, Sp, ChE.....Yakima
 Flockol, George Howard, UD, LA.....Ferdale
 Flood, Catherine, LD, FA.....Tacoma
 Flood, Grace E, LD, LA.....Pt Blakely
 Flood, Maud Evelyn, LD, FA.....Seattle
 Flower, Alan, Unc, Bus.....Mabton
 Flower, Alma J, UD, Sci.....Bickleton
 Flowers, Ruby Jane, UD, Sci.....Burton
 Floyd, Lucy L, LD, Sci.....Kittitas
 **Fluent, Russell H, Unc, Law.....Butte, Mt
 Flury, Faustina Grace, LD, LA.....Seattle
 Fogelquist, Floyd W, LD, For.....Selah
 Foley, John Richard, LD, Bus.....Seattle
 Foley, Leonard S, LD, EE.....Portland, Or
 Foote, J Herbert, LD, Bus.....Seattle
 Foote, Luanda, LD, Ed.....Seattle
 Foran, Lester Leo, LD, Bus.....Seattle
 Forbes, Robert H, LD, Bus.....Silvana
 Forum, Preston L, LD, EE.....Davenport
 Ford, Edwin H, Grad.....Seattle
 Ford, Katharine D, LD, LA.....Seattle
 Ford, Perry Miers, UD, ME.....Seattle
 Foreman, Iona, LD, Sci.....Seattle
 Forrest, Ronald C, Grad.....Seattle
 Forrest, Stewart R, LD, LA.....Rolling Bay
 Forrester, Louise, Grad.....Redmond
 Forsyth, Frances, LD, LA.....Seattle

Forsythe, Elsie N, LD, FA.....Tacoma
 Forward, Charles H, LD, For.....Seattle
 Fosdick, Helen Whitman, UD, LA.....Seattle
 Foss, Mary Loretta, UD, FA.....Seattle
 Foss, Virginia Ruth, LD, FA, Walla Walla
 Foster, Dorothy Vaughan, LD, LA.....Seattle
 Foster, Fred Stearns, LD, Bus.....Hoquiam
 Foster, O Gulley, LD, LA.....Seattle
 Foster, Harry E, 3rd Law.....Seattle
 Foster, Olive Reeves, Grad.....Denver, Col
 Foster, Waco T, LD, LA.....Seattle
 Fouts, Marie, UD, Ed.....Seattle
 Fowler, Alma A, LD, Educ.....Seattle
 Fowler, Edna Elizabeth, UD, FA.....Seattle
 Fowler, F O Jr, LD, LA.....Seattle
 Fowler, Helen B, LD, LA.....Seattle
 Fowler, Thos N, Unc, Law.....Seattle
 Fox, Edna M, UD, LA.....Seattle
 Fox, Fay Erwin, LD, Phar.....Seattle
 Fox, Jean, LD, FA.....Seattle
 Fox, John B, LD, ME.....Elma
 Frahm, Lawrence W, UD, EE.....Seattle
 Frame, Howard A, UD, Bus.....Talent, Or
 Framo, Angel Devera, LD, LA.....Philippines
 France, Madgill A, LD, Ed.....Montesano
 France, Rowland G, LD, Bus.....Montesano
 Francis, Byron F, UD, Sci.....Seattle
 Francisco, Ethel, LD, LA.....Seattle
 Frankland, Charles F, UD, Bus.....Seattle
 Frankland, Walter, LD, Bus.....Seattle
 Franklin, Charles H, LD, EE.....Seattle
 Franklin, Shadrach R, UD, Bus.....Seattle
 Franks, Ernest, LD, Eng.....Seattle
 Fraser, Edmund S, UD, Bus.....Seattle
 Fraser, Frank H, LD, LA.....Seattle
 Fraser, James Ewart, LD, Bus.....Yakima
 Fraser, A Rosena, Grad.....Burlington
 Fraser, William M, UD, Ed.....Tacoma
 Eransoli, Josephine, LD, LA.....Seattle
 Frayn, L. Richard, LD, Bus.....Seattle
 Frazier, Enid A, UD, LA.....Pocatello, Ida
 Frazier, George Gordon, LD, ME.....Seattle
 Fredlund, Reynold, LD, EE.....Seattle
 Frederickson, Esther, Unc, FA.....Seattle
 Free, Alonzo K, UD, ME.....Murray
 Freeburn, Grace S, LD, FA.....Seattle
 Freeman, George W, LD, Sci.....Spokane
 Freeman, Norman L, LD, Min. Vancouver B C
 Freeman, Vivian Claire, UD, LA.....Seattle
 Frein, Alice V, UD, LA.....Seattle
 Freistat, Mabel, UD, Ed.....Rock Island, Ill
 Frem, Agnes A, LD, LA.....Seattle
 Frem, Horace H, UD, Bus.....Seattle
 French, Mrs. Hazel D, Grad.....Ephrata
 French, Jasper J, LD For.....Spokane
 French, Mabelle, LD, Bus.....Seattle
 Freudenberg, Vivian, Unc, Bus.....Seattle
 Freyd, Greta, UD, LA.....Seattle
 Friberg, Louis W, UD, CE.....Seattle
 Friedman, Samuel, LD, Bus.....Seattle
 Friese, Frank Henry, LD, Bus.....Snohomish
 Friese, Mrs. Ruth F, LD, LA.....Snohomish
 Frink, James Harold, LD, ME.....Seattle
 Fritts, Bessie, LD, FA.....Waterville
 Froloff, Serge I, Unc, EE.....Russia
 Frost, Vernon, LD, LA.....Seattle
 Froude, Chester Wm, LD, Bus.....Seattle
 Frudenfeld, Mildred Lee, LD, LA.....Tacoma
 Fry, Don William, UD, Bus.....Anacortes
 Fry, Paul D, UD, Bus.....Prosser
 Fujita, Michinari, Grad.....Seattle
 Fulkerson, Reubens P, LD, ChE.....Tacoma
 Fulton, Amaso Eugene, LD, FA.....Ellensburg
 Fulton, Helen Louise, Grad.....Seattle
 Fulton, Lois Mildred, UD, FA.....Asotin
 Fulton, Rex Herman, LD, CE.....Centralia
 *Fultz, Gerald B, LD, Sci Crothersville, Ind
 Funakush, Frank K, LD, EE.....Seattle
 Funk, Edgar N, Unc Law.....Sunnyside
 Furber, George C, 3d Law.....Seattle

Furey, Theta, LD, LA.....Seattle
 Ferguson, Paul, LD, LA.....Summer
 Fursman, Oliver C, UD, ChE.....Seattle
 Furuta, Shichiro, Unc, LA.....Seattle
 Furuye, William N, LD, Bus.....Seattle
 Gaa, Jose, LD, Bus.....Philippines
 Gabrielson, W. Carl, LD, Bus.....Puyallup
 Galdsick, Harold G, LD, Bus.....Seattle
 Galbraith, Harriet, LD, Sci E. Burnaby, B C
 Galbraith, Mary, LD, Sci N Westminster B C
 Gale, Ralph E, UD, EE.....Seattle
 Galeno, Eugene F, UD, ChE.....Seattle
 Gallagher, James O, UD, LA.....Seattle
 Galligan, Glendon, UD, Sci.....Everett
 Galvez, Pedro R, LA, Ed.....Philippines
 Gambee, Elizabeth, LD, FA.....Seattle
 Gamble, Mary Louise, LD, Bus.....Yakima
 Gampp, Irene C, LD, Phar.....Seattle
 Ganders, James Joseph, UD, Sci.....Seattle
 Ganders, Mary L, UD, LA.....Seattle
 Garber, Ruth.....Seattle
 Garber, Eric O, LD, Bus.....Cheney
 Gardiner, Marian, LD, LA.....Seattle
 Gardner, Albert W, LD, ME.....Tacoma
 Gardner, Harold A, LD, EE.....Seattle
 Gardner, Thad D, Spec.....Bothell
 *Garin, Rene G, Sp, For.....Seattle
 Garland, Cathren, LD, FA.....Seattle
 Garman, G. W, LD, EE.....Seattle
 Garner, Helen, LD, LA.....Omak
 Garred, Ward K, LD, Bus.....Coulee City
 Garretson, Helen, LD, LA.....Yakima
 Garrison, Rupert, LD, Min.....Seattle
 Garske, Benjamin C, LD, LA.....Seattle
 Gaston, Dorothy Ruth, LD, Phar.....Seattle
 Gatewood, Joseph S, UD, CE.....Seattle
 Gauger, Herbert A, LD, Bus.....Edwall
 Gearheard, Reginald F, LD, Bus.....Seattle
 Geer, Bernice Lura, UD, Sci.....Seattle
 Gelsness, Evelyn, LD, LA.....Pt. Angeles
 Gellatly, Bernice, UD, FA.....Wenatchee
 Gellerman, Louis W, UD, LA.....Seattle
 Gellerman, Mrs. Mildred P, UD, LA.....Seattle
 *Gellerman, William, Grad.....Seattle
 Gemmel, Genevieve, LD, FA.....Seattle
 Gendron, Noella A, LD, Ed.....Yakima
 George, Robert Lynn, LD For Bismarck, N D
 Geoghegan, J. Herbert, UD, LA.....Seattle
 Gerbel, Arthur R, T, Jr, LD, Bus.....Seattle
 Gerber, Leonard, LD, Bus.....Seattle
 Gerl, Helen, LD, FA.....Bellingham
 German, Cornelio, Unc, EE.....Philippines
 Gernaey, Louise, UD, LA.....Seattle
 Gerow, Douglas R, LD, Ed.....Chinook
 Gerow, Irene Marjorie, LD, Ed.....Vancouver
 Gerriets, Eva A, UD, LA.....Mt Vernon
 Ghiselin, Alexander D, LD, Sci.....Spokane
 *Ghiselin, Marjorie A, Nur.....Spokane
 Gibney, Eugene I, UD, EE.....Seattle
 Gibney, Margaret Lucile, LD, FA.....Seattle
 Gibson, Mildred F, LD, FA.....Waterloo, Ia
 Gibson, Russell G, LD, Bus.....Crystal Springs
 *Gibson, Frederick O, LD, ChE.....Davenport
 Gibson, Stanley D, LD, Sci.....Davenport
 Giddens, Raymond, LD, EE.....Seattle
 Gidson, Mrs. Mildred, LD, LA.....Seattle
 Glerin, Russell B, LD, LA.....Seattle
 Glessey, Huldamay, LD, LA.....Menlo
 Gilbert, Horace N, LD, LA.....Yakima
 Gilbert, Katharine E, LD, FA.....Seattle
 Gilbert, Margaret G, UD, LA.....Yakima
 Gilbert, Margery, UD, LA.....Astoria, Or
 Gilbreath, Donald, LD, Bus.....Seattle
 Giles, James B, Unc, LA.....Pt. Angeles
 Gilfillen, LaVerne W, LD, Bus.....Bellingham
 Gilhams, Helen Maud, LD, Ed. Sturgis Mich
 Gillespie, H. Elmer, LD, Sci.....Seattle
 *Gillespie, James D, UD, Bus Missoula Mont

Gillman, Ethel, LD. LA.....Spokane
 Gilmore, Constance M, LD. LA.....Seattle
 Gilmore, John Wayne, LD. LA.....Seattle
 Gilmore, G Hortense, LD. LA.....Seattle
 Gilmore, R. June, LD. FA.....Seattle
 **Gippatrick, Frankie H, Bus.....Seattle
 Gingrich, Pearl, LD. LA.....Olympia
 Gittelsohn, Jacob, UD. LA.....Savannah, Ga
 Gitzen, Walter H, UD. ChE.....Seattle
 Glus, Herman, LD. Bus.....Seattle
 Givens, Arden, LD. Bus.....Chehalis
 Glascock, Susu, LD. Ed.....Waterville
 Glass, James MacNab, LD, Sci.....Seattle
 Glass, John Francis, LD, Sci.....Seattle
 Gleason, Richard F, LD. LA.....Montesano
 Glead, Thomas F, LD. Bus Bonners Ferry Ida
 Gleeson, Frank P, UD. Bus.....Seattle
 Glen, Phillip Irving, LD. LA.....Seattle
 Glenn, Harry C, LD. LA.....Elma
 Glenn, Wesley S, LD. LA.....Seattle
 Glovatzki, Wadim J, Unc, Sci.....Russia
 Glover, Marguerite, LD. FA.....Seattle
 Glover, Sheldon Latta, Grad.....Seattle
 Glynn, William B, LD. FA.....Seattle
 Goff, Benjamin Neville, LD. Bus.....Seattle
 Goggins, Marguerite, LD. FA.....Seattle
 Goldman, Erwin F, LD. Bus.....Seattle
 Goldman, Jack, Grad.....Seattle
 Goldstein, Marie, LD. LA.....Juneau Alaska
 Goluyugo, Vicente, LD. ME.....Philippines
 Good, Harold B, LD. Bus.....Mt Vernon
 Goodlick, Samson, LD, Sci.....Seattle
 Goodrich, Forest, Grad.....Seattle
 Goodrich, Robert R, LD. Min. Pt. Townsend
 Goodrick, Ralph E, UD. ChE.....Bellingham
 Goodwin, Frank S, LD. LA.....Seattle
 Goodwin, Kathryn, LD. LA.....Seattle
 Goodwin, Lang M, LD. Bus. Freewater, Or
 Goodwin, Louise, LD. LA.....Seattle
 Goodwin, Olive, UD. FA.....Pt. Angeles
 Goold, Clarissa L, UD. Lib.....Tacoma
 Goold, Howard Ralph, Grad.....Seattle
 Goon, Henry F, LD. Bus.....Portland, Or
 Goon, John Leon, LD. Bus.....Seattle
 Gorbovitzky, Maurice, LD. EE.....Seattle
 Gorbovitzky, Max, LD. LA.....Seattle
 Gerdon, David Lowry, UD. ChE.....Seattle
 Gordon, Gwendolyn, LD. LA.....Spokane
 Gordon, Johanna M, UD. LA.....Seattle
 Gorham, Marguerite, LD. LA.....Seattle
 Gorrill, Athel B, UD. LA.....Spokane
 **Gorton, Arthur V, Sp. Sci.....Tacoma
 Gose, Thomas Phelps, Unc, Law Walla Walla
 Gose, Vera, LD. LA.....Walla Walla
 Gottstein, Burton, LD. Bus.....Seattle
 Gottstein, Pauline F, LD. LA.....Seattle
 Gould, Beatrice A, UD. FA.....Seattle
 Gowen, Joyce, LD. LA.....Seattle
 Goza, Samuel D, LD. LA.....Helena, Mont
 Grace, Robert H, LD. LA.....Seattle
 Graefe, Margaret L, LD. LA.....Seattle
 Grafft, George H, LD. LA.....Everett
 Grafton, Arthur E, LD. Bus.....Tacoma
 Graham, Albert E, LD. LA.....Tacoma
 Graham, Carroll K, LD. Sci.....Seattle
 Graham, Charlotte, LD. Ed.....Seattle
 Graham, Donald P, LD. Sci.....Seattle
 **Graham, Edmund E, Bus. Idaho Falls Ia
 Graham, Eleanor E, Unc. LA.....Spokane
 Graham, Frederick A, LD. Phar. Bellingham
 Graham, Fred O, LD. Bus.....Wenatchee
 Graham, Helen E, LD. Sci.....Ottawa, Ia
 Graham, Helen J, LD. Sci.....Seattle
 Graham, Marie Edna, UD. LA.....Seattle
 Graham, Wayne E, LD. Eng.....Spokane
 Grant, Alan G, LD. Bus.....Seattle
 Grant, Clare G, UD. FA.....Seattle
 Grant, Donald F, LD. CE.....Seattle
 **Grant, Hugh McK. Eng.....Seattle

Grant, Margaret A, LD. LA. Wrangell, Aka
 Grant, Ruth A, LD. Bus.....Seattle
 Grant, Thomas Selby, 3d Law.....Selby
 Graves, Herschel D, LD. CE.....Seattle
 Graves, Lucile, UD. Sci.....Seattle
 Graves, Lucius W, UD. Bus.....Seattle
 **Graves, Ralph A, 2nd Law.....Seattle
 Gray, Beatrice, UD. LA.....Seattle
 Gray, Helen Frances, UD. LA.....Seattle
 Gray, Max L, UD. EE.....Pinehurst
 Gray, Ruth Marie, UD. LA.....Seattle
 Graybeal, Mattie F, UD. Ed. Damascus, Va
 Graybill, Anita Joan, LD. LA.....Tacoma
 Greely, Gilbert, LD. Bus Great Falls, Mont
 Green, Clarence C, UD. LA.....Seattle
 Green, Floyd C, LD. LA.....Toit
 Green, Mamie, LD. LA.....Seattle
 Greenbank, Herbert A, LD. LA.....Seattle
 Greenbank, Paul R, LD. LA.....Seattle
 Greene, Hamilton, LD. LA.....Seattle
 **Greene, James Martin, UD. Bus.....Seattle
 Greenleaf, Joseph T, Jr. LD. Bus.....Seattle
 Greenlee, John F, LD. Bus.....Seattle
 Greenough, Roger W, LD. Bus.....Spokane
 **Greenway, Edward W, Sp. Bus.....Seattle
 Greenwood, Lucile, UD. Jour.....Bellingham
 Gregory, L. Catharine, LD. LA.....Seattle
 Greguson, Judith, Grad.....Canton, S.D.
 Graider, Floyd, LD. LA.....Colbert
 Greig, Elizabeth, UD. Ed.....Tacoma
 Grewell, Dean M, Unc, Bus. Joliet, Mont
 Griffin, DeWitt C, LD, FA.....Seattle
 **Griffin, Ross A, Min.....Riverside
 Griffith, Chas. H, Sci.....Bremerton
 **Griffin, Ross A, Sp. Min.....Riverside
 Griffith, William, Grad.....Seattle
 Griffiths, Lois Wilfred, Grad.....Seattle
 Griffiths, Elsa Churchill, UD. LA.....Seattle
 Grimes, Margaret F, UD. LA.....Tacoma
 Grism, Elizabeth, UD, Sci.....Auburn
 Griswold, Frances W, LD. LA.....Bellingham
 Groat, Mrs. Elva Belle, Grad.....Seattle
 Grogan, William W, LD. For.....Seattle
 Grossen, Matilda F, UD. LA. Hillsboro, Or
 Groth, Joyce Irene, UD. LA.....Seattle
 Grotle, Clara, LD. FA.....Seattle
 Gruenberg, Fred P, Unc, Bus.....Wenatchee
 Grunbaum, Henry M, LD. Bus.....Seattle
 Guerin, Harriet, UD, Sci.....Seattle
 **Guerin, Miller.....Seattle
 Guilford, Madeline, LD. LA.....Westport
 Gullikson, Albert C, LD. ME.....Seattle
 Gulliver, Ida Mae, LD. Sci.....Seattle
 Gundlach, Ralph H, LD. LA. Wallace, Ida
 Gundlach, Wilford R, UD. LA.....Seattle
 Gunning, Alice, LD. LA.....Spokane
 **Guske, Arthur C, LD. Bus.....Spokane
 Gustafson, Marie, LD. Phar.....Cosmopolis
 Gustafson, Walter T, UD, EE.....Seattle
 Gustavson, Emil G, LD. Bus.....Seattle
 Guthrie, Catherine M, LD. LA.....Yakima
 Guthrie, Iris B, LD. LA. Twin Falls, Ida
 Gutmann, Addis, LD. Bus.....Seattle
 Guyot, Paul, UD. Ed.....Seattle
 Gwilym, Herald, UD. EE.....Seattle
 Gwynn, William, LD. Bus.....Bellingham
 Gyde, Sally Reeves, UD. LA. Wallace, Ida

Haack, David, LD. Bus.....Seattle
 Haake, Elizabeth A, LD. LA.....Seattle
 Haase, Albert P, LD. CE.....Clarkston
 Haase, Edna L, LD. Phar.....Seattle
 Haffly, Jean Delmar, LD. Bus.....Seattle
 Hagen, George T, LD. Bus.....Seattle
 Hagen, Richard O, LD. EE.....Seattle
 Hagerty, Frank W, LD. LA.....Seattle
 Hagerman, Marie, LD. Educ.....Grandview
 Haggatt, Dorothy Gene, LD. LA.....Seattle
 Hagist, Alfred C, LD. Min.....Seattle

Hahl, Lydia A, LD. Phar.....	Everett	Harlow, Max B, LD. ME..	Thompson, Mont
Hahn, Carl A, UD. ME.....	Seattle	Harm, Frank D, LD. Phar.....	Centralla
Haiman, Lewis R, LD. CE.....	Lakebay	Harman, Helen A, UD. FA.....	Pt. Angeles
Haimo, Myron B, LD. LA.....	Seattle	Harman, Robert L, LD. LA.....	Spokane
Haines, Fred S, UD. ME.....	Battle Ground	Harmon, Ingrid L, LD. Sci.....	Edmonds
Haire, T L, Unc. EE.....	Seattle	Harms, James D, Unc. Bus.....	Centralla
Halberstadt, Elizabeth H.....	Seattle	**Harper, Clarence P, LD. Bus	Culdesac, Ida
Hale, Estle William, LD. Bus.....	Brickleton	Harper, Elbert L, UD. Bus.....	Chehalis
Hale, Harry, UD. ChE.....	Seattle	Harper, Horace R, LD. Phar.....	Seattle
Hale, Oron J, LD. LA.....	Brickleton	**Harper, Paul A, LD. CE.....	Seattle
Hale, Ruth Ellnor, LD. LA.....	Seattle	Harrington, J. Bernard, UD. Bus.....	Seattle
Hall, Carroll J, LD. Bus.....	Winalow	Harris, Alden C, LD. Bus.....	Seattle
Hall, Dessie Alice, UD. FA.....	Seattle	Harris, Alden C, LD. Bus.....	Seattle
**Hall, Edward B, LD. LA.....	Seattle	Harris, Benjamin F, LD. Sci.....	Seattle
**Hall, Edward Everett, Unc. LA.....	Seattle	Harris, Charles L, 1st Law.....	Seattle
Hall, Thomas Edward, UD. ChE.....	Seattle	Harris, Donald S, UD. Jour.....	Seattle
Hall, Esther Shelton, LD. LA	Indianola Beach	Harris, Edna Price, LD. Bus.....	Seattle
Hall, O Ingalls Jr, LD. CE.....	Seattle	Harris, Florence, LD. Ed.....	Seattle
Hall, Julia Marjorie, LD. LA.....	Fairfax	Harris, Frederick O, LD. LA.....	Seattle
Hall, Ralph Daniel, LD. Bus.....	Seattle	**Harris, George O, Sp. Bus.....	Aberdeen
Hall, Robert C, LD. LA.....	Montesano	Harris, Harry Hull, LD. Eng.....	Seattle
**Hall, Roy Jennings.....	Olympia	Harris, Lena Beatrice, LD. LA.....	Seattle
Hall, Russell G, LD. Bus.....	Seattle	Harris, Mary P, UD. Jour.....	Seattle
Hall, Vernon K, UD. Sci. Vancouver	B O	Harris, Parker E, UD. Bus.....	Seattle
Hall, Vesper Trevor, LD. Ed.....	Seattle	Harris, Ralph H, UD. For.....	Seattle
Hall, Wayne Lee, UD. Bus.....	Spokane	Harris, B Robert, LD. Sci.....	Kennewick
Hallett, John Louis, LD. ME.....	Seattle	Harris, Robert G, LD. ME.....	Spokane
Hallgren, Howard L, LD. Bus.....	Seattle	Harris, Violet E, LD. LA.....	Seattle
Halloway, A Cecil, LD. LA.....	Seattle	Harris, Walter, LD. Bus.....	Montesano
Hallowell, Lionel E, UD. Bus.....	Seattle	Harrison, Elleen.....	Seattle
Hallstrom, Irving T, LD. CE.....	Seattle	Harrison, Ethyl N, LD. LA.....	Seattle
Halverson, Carl E, LD. Bus.....	Anatona	Harrison, Everett F.....	Seattle
Halverson, Clarence B, Unc. Phar.....	Custer	Harrison, Frances, LD. LA.....	Seattle
**Halverson, Edwin O, LD. Bus.....	Custer	Harrison, May, LD. Bus.....	Richmond Beach
Halverson, Helmar M, LD. Bus.....	Custer	**Harsh, Dwight B, LA.....	Seattle
Halverson, Florence, LD. Sci.....	Seattle	Harshberger, Frank M Jr, LD. FA.....	Seattle
Hambleton, Edith, LD. LA.....	Seattle	Harshberger, Robert L, UD. Min.....	Seattle
Hamerly, Laurence R, LD. Eng.....	Seattle	**Harstad, Ingvald T, UD. Min.	Parkland
Hamilton, Edna Y, LD. Sci.....	Tacoma	Harstad, Louise D, LD. Sci.....	Parkland
Hamlin, Phyllis Kathryn, UD. LA.....	Seattle	Hart, Artie-Lee G, UD. LA.....	Seattle
Hamn, Charles H, LD. Ed.....	Seattle	Hart, Dean Brooks, UD. Bus.....	Tacoma
Hamn, George E, Unc. Bus.....	Puyallup	Hart, Forrest, Unc. Sci.....	Seattle
Hammer, James R, LD. Bus.....	Seattle	Hart, Harold S, LD. EE.....	Walla Walla
Hammer, Joyce, UD. LA.....	Sedro Woolley	Hart, Lou Ella, UD. LA.....	Olympia
Hammerlin, Roy N, LD. Bus.....	Tacoma	Hart, Mildred Stanley, LD. FA.....	Seattle
Hammond, Allen O, Grad.....	Seattle	Hart, Ruth M, UD. LA.....	Tacoma
Hampson, Fred E, LD. LA.....	Tacoma	Harter, Genevieve, LD. FA.....	Bellingham
**Hampton, Robert W, Eng.....	Seattle	Hartge, Lena A, Grad.....	Seattle
Handley, James W, UD. Bus.....	Hazelwood	Harting, Raymond D, LD. EE.....	Seattle
Haner, Norman W, LD. Eng.....	Wickersham	Hartung, Olive May, LD. Sci.....	Seattle
Haner, Victor C, LD. Eng.....	Wickersham	Harvey, Allan, LD. Eng.....	Seattle
Hang, Chung (Jone, Lincoln) Unc	LA. Seattle	Harvey, A Earle, LD. Sci.....	Arlington
Hanify, Mabel V, Sp. Sci.....	Tacoma	Harvey, Isabel F, LD. Sci.....	Seattle
Hankinson, Helen A, LD. LA.....	Seattle	Harvey, Margaret, LD. Ed.....	Medford, Or
Hanley, Myron Victor UD. Bus.....	Spokane	Harvey, Walter M Jr, LD. LA.....	Seattle
Hanley, V. Myron, LD. Bus.....	Spokane	Harward, Elbert J, LD. LA.....	Twin Falls, Ida
Hanna, Helen, Unc. Bus.....	Seattle	Hassell, H MacDonald, Unc. EE.....	Seattle
Hanna, Mrs. Idella M, UD. LA.....	Edmonds	Hassenmiller, K Lyndon, LD. Bus.....	Seattle
Hannum, Clair A, Unc. Sci.....	Seattle	Hatch, Helen Dorothy, LD. LA.....	Seattle
Hansen, Hannah A, LD. Bus.....	Tacoma	Hatch, Orrville C, LD. LA.....	Seattle
Hansen, Harry F, UD. Bus.....	Seattle	Hatheway, Ernest B, LD. Sci.....	Seattle
Hansen, Magnus S, F.....	Juneau, Alaska	Hatlen, Charles B, LD. ME.....	Everett
Hansen, Reese Detlef, LD. CE.....	Spokane	Hatlestad, Elmer, LD. ME.....	Seattle
**Hansen, Thorwald A, LD. CE.....	Snohomish	Hatton, Ruth G, LD. LA.....	Seattle
Hansen, Viola, Grad.....	Seattle	Hauan, Merlin, LD. EE.....	Kingston
Hanson, Alice Cable, LD. LA.....	Seattle	Haug, Andrew J, UD. EE.....	Seattle
Hanson, Bonnie, LD. Bus.....	Seattle	Hauschel, Robert, LD. Sci.....	Bremerton
Hanson, Esther A, UD. LA.....	Seattle	Hauschildt, Frank W, LD. Bus.....	Seattle
Hanson, Henry Ernest, LD. EE.....	Seattle	Havelock, Frank Fraser.....	Bellingham
Hanson, Marion Fay, UD. Bus.....	Seattle	Haverkamp, D B, UD. Bus.....	Tacoma
Hanson, Russell Martin, LD. Bus.....	Bellingham	Haven, George Jr, LD. For.....	Waterloo, Ia
Harada, Matsutaro, UD. LA.....	Japan	Hawkins, J Walter, UD. EE.....	Mt Vernon
Harbert, Robert William, Spec.....	Seattle	Hawkins, Harry E, UD. CE.....	Seattle
Hardeman, Russell A, UD. LA.....	Seattle	Hawkins, Hazel G, LD. FA.....	Seattle
Harden, Donald, LD. Bus.....	Mt Vernon	Hawkins, Lewis, UD. Jour.....	Bellingham
Harding, Betty I, UD. FA.....	Seattle	Hawkins, Russell Jr, LD. For	Bay City, Or
Hardwick, Clifford E, LD. Sci.....	Pinehurst	Hawley, Clarence B, LD. CE.....	Seattle
Harkness, A Erwin, LD. Bus.....	Seattle	Hawn, Marcella Amelia, LD. LA.....	Seattle
Harley, C. Frederick, LD. Bus.....	Seattle	Hay, John Emory, LD. Bus.....	Sunnyside
Harlow, Francis H, LD. EE.....	Bremerton	**Hay, Larry, LD. Sci.....	Sunnyside

Hay, Marjorie, LD, Sci.....	Seattle	Hayes, Alice Dorothy, UD, LA.....	Seattle
Hay, Muriel, LD, LA.....	Seattle	Heyes, Katherine E, Unc, Ed.....	Seattle
Hay, Ray H, LD, Bus.....	Sunnyside	Hiatt, Amos, UD, Bus.....	Seattle
Hayden, Henry T Jr, UD, EE.....	Pt Townsend	Hermans, Thomas G, UD, Sci.....	Puyallup
Hayden, Mary Dyer, LD, LA.....	Seattle	Hermens, Wayland D, UD, Bus.....	Seattle
Hayes, Mary Edith.....	Seattle	Hernandez, Salustiano C, LD, Bus.....	Philippines
Haynes, Charles D, UD, LA.....	Seattle	Herner, Pauline, UD, Bus.....	Portland, Or
Haynes, Etta Virginia, UD, Sci.....	Clancy, Mt	Heron, Herbert A, UD, For.....	Seattle
Haynes, Hanford, LD, ME.....	Seattle	Heron, Nellie S, LD, Sci.....	Seattle
Haynes, Justin O, UD, Bus.....	Seattle	Hibbard, Wallace McK, LD, Bus.....	Seattle
Haynes, Robert, LD, Bus.....	Seattle	Hick, Lawrence L, UD, Fish.....	Seattle
**Haynes, Ross E, UD, Bus.....	Lebanon, Or	Hielscher, Herbert H, LD, Bus.....	Seattle
Hazen, Claris M, UD, LA.....	Seattle	Hiersch, Frederick A, LD, ChE.....	Benton
Hazen, Kathryn, LD, FA.....	Seattle	Hiersch, Wilhelmina, LD, Ed.....	Seattle
Hazen, Oliver M, UD, LA.....	Snohomish	Higgins, Wilma Romaine, LD, LA.....	Seattle
Healy, Timothy.....	Bellingham	Hilbusch, Wilma H, LD, Bus.....	Hillyard
Healy, Warren C, LD, Sci.....	Seattle	Hillen, Ethel Joan, LD, Sci.....	Seattle
Heath, Dorothy M, LD, Bus.....	Yakima	Hiles, Rita L, LD, FA.....	Seattle
Heath, Fred T, UD, Min.....	Seattle	Hill, Bert, UD, Bus.....	Tacoma
Heath, Howard Davis, LD, Bus.....	Seattle	Hill, Charles G, UD, Bus.....	Spokane
Heath, Phyllis T, UD, Bus.....	Palo Alto, Cal	Hill, Chester F, LD, Bus.....	Seattle
Heeley, Sue.....	Tacoma	Hill, Cyril D, 2nd Law.....	Seattle
Heer, Ralph W, LD, Fish.....	Boise, Ida	Hill, R Dwight, LD, Bus.....	Seattle
Hefferman, John T Jr, LD, Eng.....	Seattle	Hill, Francel E, LD, Bus.....	Port Townsend
Hegewald, Wilhelmina, LD, Bus.....	Mt Vernon	Hill, Helen M, UD, Sci.....	Seattle
Helly, Raymond, LD, Bus.....	Spokane	Hill, Lella Dunwoody, UD, LA.....	Seattle
Helly, Robert G, UD, Bus.....	Spokane	Hill, Ray H, LD, LA.....	Bellingham
Helman, Jeffrey, LD, LA.....	Seattle	**Hill, Sidney B, Unc, Law.....	Riverside
Helmer, Arnold, LD, LA.....	Seattle	**Hill, William F, Fish.....	Kirkland
Helmer, Eva, LD, LA.....	Seattle	Hillard, Thelma Edith, LD, Ed.....	Seattle
Helms, Wallace Paul, UD, CE.....	Seattle	**Hillier, Roland, Bus.....	Seattle
Helms, Winfield B, LD, EE.....	Chelan Falls	Hillman, George K, LD, ME.....	Seattle
**Heltzman, John H, Jour.....	Palouse	Hillman, Robert K, Unc, Law.....	Seattle
Heltzman, Robert E, Unc, LA.....	Palouse	Hills, Autumn, LD, FA.....	Seattle
Hellens, Lawrence W, LD, Bus.....	Seattle	Hills, Carlotta, LD, LA.....	Seattle
Helmich, Leone, UD, Sci.....	Yakima	Hills, Chester W, UD, EE.....	Ellisport
Helstrom, Gordon, LD, Sci.....	Willapa	Hilladon, Charles E, LD, For.....	Seattle
Hemphill, Elizabeth, Unc, Ed.....	Seattle	**Hilmer, Wesley F, LD, Bus.....	Spokane
Hemphill, Harriet, LD, FA.....	Seattle	Hilstrom, George D, UD, Bus.....	Vancouver
Hemphill, Thomas W, LD, LA.....	Seattle	Himes, Hazel F, LD, Sci.....	Raymond
Henderson, Esther, LD, Sci.....	Seattle	Himes, Roy Claude, LD, Bus.....	Seattle
Henderson, Glenn W, LD, Phar.....	Seattle	Hindle, Stuart J, LD, Bus.....	Seattle
Henderson, Hamline W, LD, LA.....	Bellingham	Hindley, Philip M, LD, LA.....	Spokane
Henderson, Helen E, LD, LA.....	Hoquiam	Hiner, Elizabeth, Grad.....	Ft Collins, Col
Henderson, Ruby A, LD, Phar.....	Sunnyside	Hines, Ruth Ann, Spec.....	Seattle
Henderson, Walter L, LD, Eng.....	Seattle	Hinman, Chester A, LD, Bus.....	Lewiston, Ida
Hendricks, Ruth Gladys, UD, Sci.....	Seattle	Hinman, C Lee, 3rd Law.....	Seattle
Hendrickson, Harold M, LD, ME.....	Seattle	Hinman, Grace, LD, Ed.....	Seattle
Hendrickson, Harvey F, LD, Bus.....	Seattle	**Hinton, Paul, Eng.....	Pt Townsend
Hennings, Lawrence R, 1st Law.....	Seattle	Hinz, Walter, LD, LA.....	Seattle
Hendrick, J L, LD, Bus.....	Omak	**Hipsley, William B, Sci.....	Tacoma
Henrickson, Fred S, LD, LA.....	Tacoma	Hirata, Harry M, LD, Bus.....	Seattle
Henricksen, H Otto, UD, Bus.....	Seattle	Hirose, Tadayuki, T, UD, Sci.....	Seattle
Henricksen, W Thorwald, Unc, Bus.....	Tacoma	Hirschman, Jay, LD, LA.....	Seattle
Henry, Anna Ruth, UD, FA.....	Seattle	Hitchings, Eben G, UD, CE.....	Seattle
Henry, Gorman, LD, Bus.....	Seattle	Hitchings, Esther Louise, UD, Lib.....	Seattle
Henry, Hylas E, LD, LA.....	Yakima	Hoag, Edmund S, LD, Fish.....	Seattle
Henry, Ruth H, LD, LA.....	Tacoma	Hoag, Clarice, LD, LA.....	Seattle
Henshaw, Vallie Virginia, LD, LA.....	Seattle	Hoag, Ruth Gilberta, UD, Sci.....	Seattle
Hepler, Helen, UD, FA.....	Seattle	Hoard, Bert V, LD, Eng.....	Seattle
Herbert, Willis N, LD, Bus.....	Tacoma	Hoare, William C, LD, Bus.....	Seaview
Herman, Saul, LD, LA.....	Seattle	Hobl, Edwin, UD, Bus.....	Aberdeen
Hermans, Emery J, LD, Bus.....	Puyallup	Hobl, Helen M, LD, LA.....	Aberdeen
Herre, Kirk Taylor, LD, LA.....	Everson R I	Hobson, Roe F.....	Seattle
Herren, Esther, LD, Bus.....	Harve, Mt	Hocking, Lillian K, LD, Sci.....	Seattle
Herren, W A, LD, Bus.....	Seattle	Hodges, Frederick C, Unc, EE.....	Thane, Alas
Herren, Willow E, LD, LA.....	Seattle	Hodges, Gilbert F, LD, LA.....	Thane, Alaska
Herrett, Clarence Harley, LD, Bus.....	Seattle	Hodges, Harold B, LD, EE.....	Seattle
Herrick, Ellen, UD, LA.....	Seattle	Hodges, James F, UD, Bus.....	Seattle
Herrick, John S, Grad.....	Seattle	**Hodges, John S, Sci.....	Edmonds
Herrick, Marion E, UD, Bus.....	Seattle	Hoefer, Herman S, LD, Eng.....	Seattle
Herrick, Winifred L, LD, LA.....	Seattle	Hoff, Hubert James, LD, LA.....	Lawrence
Herron, Josephine H, LD, FA.....	Sedro Woolley	Hoffer, John C, LD, Fish.....	Seattle
Hershberger, Emily, UD, Ed.....	Seattle	Hoffer, Paul E, LD, LA.....	Seattle
Herzinger, Carl W, LD, LA.....	Everett	Hoffman, Bessie, UD, Bus.....	Seattle
Hesketh, R Bruce, LD, ChE.....	Seattle	Hoffman, Ruth M, UD, Bus.....	Olympia
Hesse, Victor O, UD, CE.....	Walla Walla	Horto, Glen E, LD, CE.....	Seattle
Hesseltine, Lee F, UD, Bus.....	Seattle	Hogan, Elwood D, UD, For.....	Cosmopolis
Heuver, Benlah, LD, Ed.....	Seattle	Hogan, Louis Bennett, LD, For.....	Cosmopolis
Heyburn, Frances Louise, LD, FA.....	Bend, Or	Hogan, William C, LD, Phar.....	Pasco

Hogue, Helen, UD, FA.....Seattle
 Holbrook, C Ray, Grad.....Seattle
 Holbrook, Richard, LD, Bus.....Seattle
 Holden, Blanche Lillian, LD, Bus.....Lebam
 Holden, H Harry, LD, LA.....Seattle
 Holden, James H, Grad.....Seattle
 Holden, James H, UD, Ed.....Seattle
 Holden, John Harold, LD, Bus.....Chelan
 **Holderman, O W, Sp, Eng.....Chambers Fr
 Holland, Helengrant, LD, Ed.....Seattle
 Hollenbeck, Dale G, UD, Bus.....Seattle
 Holloway, A Cecil, LD, LA.....Seattle
 Holman, Andrew, Unc, CE.....Elma
 Holman, Franklin J, Unc, Bus.....Elma
 Holman, H E, Unc, For.....Idaho Falls, Ida
 Holman, Walter E, Unc, Bus.....Seattle
 Holmes, Joseph D, LD, LA.....Seattle
 Holmes, Vernon P, LD, ChE.....Idaho Falls, Ida
 Holmatad, Myrtle Irene, Unc, LA.....Seattle
 Holt, Florence C, LD, FA.....Seattle
 Holt, Lucy M, UD, Sci.....Seattle
 Holt, Marvin G, UD, ChE.....Seattle
 **Holton, Karl William, UD, Bus.....Seattle
 Holts, Mildred, Grad.....Lincoln, Neb
 Holtzinger, Ruth E, LD, LA.....Yakima
 Holz, Eva Lucille, LD, LA.....Kapowsin
 Holzheimer, Frank W, UD, Min.....Seattle
 Homan, Marion, UD, Sci.....Hoquiam
 Honeyman, Ronald J, LD, Bus.....Portland, Or
 Hooper, Eugene F, LD, LA.....Seattle
 Hooper, Louise, LD, LA.....Seattle
 Hooper, Robert Sherman, LD, Bus.....Seattle
 Hoover, Glenn, Grad.....Seattle
 Hoover, Henry B, LD, FA.....Boise, Ida
 Hoover, Lewis F, Spec.....Seattle
 Hoover, Oscar, LD, Bus.....Everett
 Hopt, Eliza May, LD, Sci.....Pt Angeles
 Hopkins, Herman F, LD, Bus.....Seattle
 Hopmann, Harry A, LD, ChE.....Puyallup
 Hopper, Charles M, LD, Bus.....Spokane
 Hopper, Clarence Galvin, LD, Bus.....Seattle
 Hopper, Dorothea, UD, LA.....Seattle
 Hopper, Edna Lucile, LD, LA.....Seattle
 Horlike, Joil, LD, Bus.....Seattle
 Hornberg, Jalmer T, LD, Bus.....New Castle
 Horning, Harold F, LD, Bus.....Seattle
 Hornstra, Fred Harry, LD, EE.....Auburn
 Horowitz, Charles, LD, Bus.....Seattle
 Horsley, Frank Sears, LD, Bus.....Yakima
 Horst, Cecil A, UD, ME.....Seattle
 Hoskins, Marion, UD, Ed.....Redmond, Or
 Hotes, John Martin, LD, For.....Alder
 Houck, Faith, LD, LA.....Coeur d'Alene, Ida
 Hougau, Edward O, UD, Bus.....Seattle
 House, Richard, UD, Bus.....Seattle
 Houston, Ruth, LD, FA.....Seattle
 Hove, Klareen Emma, LD, FA.....Seattle
 Howard, Doris Isabelle, LD, LA.....Everett
 Howard, Edwin Lee, LD, LA.....Stanwood
 Howard, Frances Hyde, LD, LA.....Seattle
 Howard, Fred Albert, UD, Bus.....Stanwood
 Howard, Louise, Unc, Sci.....Seattle
 Howard, Rodney James, LD, Bus.....Seattle
 Howard, Walter J, UD, FA.....Seattle
 Howard, William H Jr, LD, Bus.....Seattle
 Howarth, Marie, LD, LA.....Seattle
 Howden, Mrs. Vera, Unc, FA.....Seattle
 Howe, Charles B, UD, Bus.....Seattle
 Howe, Helen M, LD, LA.....Langley
 Howe, Kendall L, UD, EE.....Seattle
 Howe, Wilbur Almeron, LD, EE.....Seattle
 Hower, M M, LD, Sci.....Friday Harbor
 Howell, Eilene, UD, Jour.....Portland, Or
 Howell, Emma L, UD, Bus.....Portland, Or
 Hoyt, Dorothy, LD, Sci.....Woodinville
 Hoyt, Gordon M, LD, Sci.....Seattle Heights
 **Hoyt, Joseph B, Eng.....Emmett, Ida
 Hoyt, Marguerite, LD, LA.....Seattle Heights
 Huang, Hua Piao, UD, LA.....China
 Hubbard, C Anderson, Grad.....Seattle

Hubbard, Proctor, LD, Bus.....Seattle
 Hudson, Augustus H, UD, ChE.....Bremerton
 Hudson, Dorothy W, LD, LA.....Seattle
 Hudson, George Eddy, Unc, Law.....Seattle
 Hudson, Marjorie Merle, UD, LA.....Seattle
 Huf, Philip R, Unc, Sci.....Tacoma
 Huggins, Arthur L, UD, LA.....Bellingham
 Hughes, Anne Burke, UD, LA.....Seattle
 **Hughes, Edwin A, LD, CE.....Olympia
 Hughes, Fred L, UD, Bus.....Yakima
 Hughes, George G, LD, Bus.....Seattle
 Hughes, Harry E, LD, LA.....Seattle
 Hughes, Henry Helton.....Yakima
 **Hughes, Henry Helton, LD, Bus.....Yakima
 Hughes, Millicent, LD, Bus.....Seattle
 Huguelot, Zeline, LD, Ed.....Seattle
 Huhka, Ernest, Grad.....Seattle
 Hull, Beatrice I, LD, Bus.....Hoquiam
 Hull, Clinton R, LD, LA.....Grass Valley, Cal
 Hulshouser, Ruth, LD, LA.....Selah
 Humbert, George C.....Monmouth, Ill
 **Humes, Edmond T, Sp, Phar.....Seattle
 Hundal, L S, LD, ME.....Seattle
 Hunsaker, James W, LD, ChE.....Seattle
 Hunsaker, Herbert C, UD, LA.....White Salmon
 Hunt, Beatrice, LD, LA.....Kennedydale
 Hunt, Cecil Albert.....Seattle
 Hunt, Ernest Russell, LD, LA.....Leahy
 Hunt, Lawrence W, LD, Bus.....Burlington
 Hunt, Norma E, LD, LA.....Seattle
 Hunt, Phoebe Alberta, UD, Jour.....Seattle
 Hunt, Wallace D, LD, Sci.....Seattle
 Hunting, Lloyd Elmo, LD, ME.....Bellingham
 Huntington, Helen, LD, FA.....Denver, Colo
 Huntington, LeRoy W, LD, For.....Hoquiam
 Huntley, W Ralph, LD, Bus.....Spokane
 Huntling, Bruce L, LD, Eng.....Silver Creek
 Huntworth, John W, UD, Bus.....Seattle
 Hurd, Mildred, LD, FA.....Seattle
 Hurlburt, C M, LD, Min.....Thompson Falls, Mt
 Hurley, Colla, LD, LA.....Pecatonica, Ill
 Hurley Dora, UD, LA.....Seattle
 Hurley, Gerald Victor, LD, Bus.....Seattle
 Hurwitz, Milton S, LD, Phar.....Seattle
 Huxon, John Wing, LD, Bus.....Seattle
 Hutchason, Elwood, 1st Law.....Montesano
 Hutchinson, Alva T, LD, EE.....Vashon
 Hutchinson, Lois, LD, LA.....Yakima
 Hutchinson, W Harold, 2nd Law.....Seattle
 Hutchinson, Howard, LD, ChE.....Seattle
 Hutchinson, Ruby, LD, Sci.....Mt Vernon
 Hutchinson, Pauline, UD, FA.....Seattle
 Hyland, Katherine, LD, LA.....Seattle
 Hyllengren, Henry, LD, Bus.....Seattle
 Hyner, Glen, LD, Bus.....Seattle
 Hyde, Claire Virginia, LD, LA.....Seattle
 **Hynes, Frank W, Sp, Fish.....Seattle

Ibach, Horace H, LD, Min.....Seattle
 Ide, Kinichi, LD, LA.....Seattle
 Inches, Leona, LD, LA.....Seattle
 Ingalls, M M, Spec.....Seattle
 Ingham, Caroline, LD, LA.....Olympia
 Ingham, Harry D, LD, CE.....Seattle
 Ingram, Robert M, UD, Bus.....Hoquiam
 Inkster, Harry, LD, Sci.....Seattle
 Inkster, Ruth D, LD, Sci.....Spokane
 Inouye, Chohel, UD, Bus.....Seattle
 Instrella, Angel M, UD, Ed.....Philippines
 Irish, Grace, Unc, Ed.....Seattle
 Irvine, Robert W, LD, Sci.....Spokane
 Irwin, Jacob C, Unc, LA.....Twin Falls, Ida
 Irwin, Mason, UD, EE.....Montesano
 Islander, Ida, LD, FA.....Seattle
 Israel, Eli, LD, Bus.....Seattle
 Itkin, Annetta, LD, LA.....Seattle
 Iverson, Oscar A, Unc, Bus.....Kalispell, Mont
 Ives, Waldo C, LD, LA.....Seattle

Ivy, Eugene D, 3rd Law.....Davenport

Jacinto, Victorino, LD, LA.....Philippines
 Jackson, Betty, LD, Ed.....Seattle
 Jackson, David K, Unc, Bus.....Seattle
 Jackson, Dorothea, LD, LA.....Seattle
 Jackson, George B, Grad, LA.....Seattle
 Jackson, Irene N, LD, LA.....Seattle
 Jackson, Lillian, LD, LA.....Black Diamond
 **Jackson, Louis L, Sci.....Seattle
 Jacobi, Miller F, LD, ChE.....Seattle
 Jacobs, Anna E, LD, LA.....Seattle
 Jacobs, Dorothy, LD, FA.....Tacoma
 Jacobs, Frank H, LD, ME.....Seattle
 Jacobs, Harold A, UD, ME.....Seattle
 Jacobs, Mary E, LD, LA.....Seattle
 Jacobs, Townsend H Jr, LD, Bus.....Seattle
 Jacobsen, John T, LD, FA.....Des Moines
 Jacobsen, Paul M, UD, CE.....Ellensburg
 Jacobsen, Phillip A, Unc, EE.....Des Moines
 James, Dorothy, LD, Sci.....Tacoma
 James, Frank B, LD, Bus.....Seattle
 James, Gordon M, UD, Sci.....Tacoma
 James, Milton C, UD, Fish.....Augusta, Me
 James, Thurston, UD, Bus.....Yakima
 Janecek, Kenneth N, LD, Phar.....Yakima
 Janecek, Louis F, UD, Bus.....Yakima
 Janecek, Marion D, UD, LA.....Yakima
 Janeway, Harold L, LD, Bus.....Edmonds
 Jardine, Nan T, LD, LA.....Seattle
 Jarvis, Norman D, UD, Fish.....Pt Townsend
 Jasper, Martin W, LD, Min.....Kellogg, Ida
 Jellison, Arthur J, LD, For.....Seattle
 Jenkins, Helena, UD, Ed.....Puyallup
 Jenkins, Margaret A, LD, Sci.....Seattle
 Jenks, Carol, LD, LA.....Seattle
 Jenner, Cordella E, LD, Bus.....Seattle
 Jenner, Earle B, UD, ME.....Seattle
 Jenner, Horace L, LD, EE.....Seattle
 **Jennesse, John C, UD, Bus.....Seattle
 Jensen, Alfred, UD, CE.....Seattle
 Jensen, Helen, LD, LA.....Seattle
 Jensen, Kai, UD, LA.....Seattle
 Jensen, Leo C, LD, CE.....Black Diamond
 Jensen, Marian G, LD, Sci.....Everett
 **Jensen, Walter A, LD, Bus.....Spokane
 Jerbert, Arthur R, Grad.....Seattle
 Jergensen, Mary E, LD, Bus.....Seattle
 Jerome, Vincent B, LD, Ed.....Cashmere
 Jessup, Clara Belle, LD, LA.....Bremerton
 Joseph, Georgia D, LD, LA.....Seattle
 Jewell, Mildred, LD, FA.....Tenino
 Jewell, Mildred, LD, LA.....Seattle
 Johanson, Nels E, LD, Min.....Index
 Johns, Cyrena, LD, LA.....Seattle
 Johnson, Anna E, LD, LA.....Seattle
 Johnson, Benjamin F, LD, Bus.....Raymond
 Johnson, Bertil E, Unc, Bus.....Tacoma
 **Johnson, Clifford E, LD, EE.....Tacoma
 Johnson, Carl B, LD, Bus.....Seattle
 Johnson, Clarence B, Spec.....Portland, Or
 Johnson, Cyrus B, LD, LA.....Seattle
 Johnson, Dorothea E, LD, LA.....Seattle
 Johnson, Edith M, Grad.....Lewiston, Mont
 Johnson, Eva Jane, LD, LA.....Seattle
 Johnson, Edwin, LD, LA.....Tacoma
 **Johnson, F B, LD, Bus.....Twin Falls, Ida
 Johnson, Fletcher O, LD, Bus.....Seattle
 Johnson, Florence A, UD, LA.....Lewiston, Mt
 Johnson, Florence E, UD, Sci.....Bellingham
 Johnson, Frederick A, LD, EE.....Seattle
 Johnson, GenevieveD, LD, LA.....Seattle
 Johnson, Glen, Unc, Sci.....Spokane
 Johnson, Harvey A, LD, Bus.....Chehalis
 Johnson, Herbert, Unc.....Winslow
 Johnson, Hilding, UD, ChE.....Seattle
 Johnson, Howard A, LD, ME.....Pearson
 Johnson, Isyl, LD, LA.....Tacoma
 Johnson, Jeanette E, LD, LA.....Everett

**Johnson, John L, LD, Bus.....Coeur d'Alene
 Johnson, Kenneth A, UD, Sci.....Seattle
 Johnson, Lorenz C, LD, Bus.....Seattle
 Johnson, Lula Marie, Unc, Sci.....Hoquiam
 Johnson, Martin W, LD, Fish.....Silvana
 Johnson, Melvin E, LD, EE.....Spokane
 Johnson, C Morrison, UD, Eng.....Tacoma
 Johnson, Myrtle, Unc, FA.....Poulsbo
 Johnson, Nora H, LD, Sci.....Aberdeen
 Johnson, Norman, LD, Sci.....Seattle
 Johnson, Oliver, LD, Eng.....Seattle
 Johnson, Oscar M, LD, Bus.....Redmond
 **Johnson, Oscar R, LD, Bus.....Seattle
 Johnson, Pauline, LD, LA.....Spokane
 Johnson, Philip, LD, Scr.....Selah
 Johnson, Raymond L, LD, LA.....Tacoma
 Johnson, Roscoe, LD, LA.....Heppner, Or
 Johnson, Rudolph, LD, Sci.....Seattle
 Johnson, Sylvia, LD, Phar.....Itawaco
 Johnson, Ursula, UD, LA.....Seattle
 Johnson, Venus June, UD, Sci.....Seattle
 Johnson, Victor, LD, LA.....Spokane
 **Johnson, Victor Martin, UD, Bus.....Spokane
 Johnson, Virian LeRoy, LD, Bus.....Spokane
 Johnston, Walter W, UD, Min.....Seattle
 Johnston, B Helen M, LD, LA.....Victoria, BC
 Johnston, Carolyn Ruth, LD, Sci.....Seattle
 Johnston, Clarence W, Unc, Phar.....Marysville
 Johnston, Gladys, LD, LA.....Seattle
 Johnston, Ida, LD, Sci.....Coupeville
 Johnston, Rae L, LD, Eng.....Seattle
 Johnson, Walter E, UD, Bus.....Spokane
 Johnstone, Robert V, Unc, Bus.....Arlington
 Jolliff, Eleanor, LD, Bus.....Wallace, Ida
 Jolliffe, John P, LD, EE.....Tacoma
 Jolliffe, Margaret J, UD, LA.....Tacoma
 Jolly, E Nydia, LD, LA.....Seattle
 Jonason, Raynor, LD, LA.....Almira
 Jone, Lincoln (Hang, Chung) Unc, LA.....Seattle
 Jones, Charles D, Unc.....Mukilteo
 **Jones, Clarence W, ME.....Seattle
 Jones, Eleanor F, LD, LA.....Seattle
 Jones, Ellen J N, LD, FA.....Aberdeen
 **Jones, Floyd S, Bus.....Seattle
 Jones, George Frank, LD, Min.....Seattle
 Jones, Helen, LD, Bus.....Seattle
 Jones, Howard R, LD, CE.....Seattle
 Jones, Ivan L, LD, Sci.....Seattle
 Jones, Llewellyn Owen, LD, Sci.....Snohomish
 Jones, Luella E, LD, Ed.....Seattle
 Jones, Margaret Bell, UD, Lib.....Seattle
 Jones, Marian E, UD, Bus.....Hartline
 Jones, Pauline F, Grad.....Kansas City, Mo
 Jones, Stephen Barr, LD, Sci.....Seattle
 Jones, Victor N, LD, FA.....Seattle
 Jones, Winston J, Unc, Bus.....Tacoma
 Jones, William John, UD, Bus.....Seattle
 Jones, William K, LD, Bus.....Seattle
 Jones W Worth, LD, LA.....Spokane
 Jones, Zenith W, Grad.....Seattle
 Jordan, Allan R, LD, Bus.....San Francisco
 Jordan, John C, LD, FA.....Seattle
 Jordan, Ruth, LD, LA.....Columbus
 Jorgenson, George, LD, Bus.....Seattle
 Jorgensen, Harold M LD ME Three Forks M
 Joubert, Stanley S, UD, Bus.....Enumclaw
 Joy, Arnyess I, UD, LA.....Seattle
 Joy, Laura F, LD, LA.....Seattle
 Judd, Elsie G, UD, Sci.....Seattle
 Judges, Fred Byron, UD, Journ.....Spokane
 Judson, E Bernice, LD, Sci.....Bellingham
 Julayeo, Juan J, LD, Sci.....Philippines
 Jule, Walter W, Unc, LA.....Seattle

Kaiser, Gladys Guernsey, UD, Sci.....Seattle
 Kaler, Marion M, LD, Sci.....Spokane
 Kallgren, Philip Albin, LD, ME.....Hall
 Kamb, Walter Carl, LD, LA.....Mt Vernon
 Kamei, Seichihiro Richard, LD, LA.....Seattle

Kamholz, Elmer William, UD, EB. Centerville	Kimura, Koreaki, LD, LA. Seattle
Kamm, Edward John, Unc, LA. Lynden	Kincaid, Frederick Marshall, 3d Law. Palouse
Kane, Arthr T, UD, ME. Edison	Kincaid, Olive N, Grad. Camas
Kangley, Helen Agnes, UD, LA. Zenith	**King, Edward George, Min. Sumas
Kangley, Lucy, UD, LA. Seattle	King, Margaret Elizabeth, UD, LA. Seattle
*Kappbahn, Dorothea Lois, Nur. Tacoma	**King, Norris G, Bus. Seattle
Karrasch, Harry S, Spec, Bus. Seattle	King, Ottis Schley, LD, EE. Seattle
Karr, Olive Ann, LD, LA. Hoquiam	King, Robert W, LD, Bus. Skagway, Alaska
Kapp, Karl, UD, CE. Seattle	King, Vicar, LD, Min. China
Kaseberg, F, UD, Ed. Walla Walla, Wash	King, Virginia E, LD, Ed. Boise, Ida
Kaufer, Monica, LD, Ed. Seattle	King, Winchester, LD, Min. Seattle
Kaufman, Elsa, LD, FA. Tacoma	Kingsbury, Evelyn P, Unc, Sci. Butte, Mt
**Kaufman, W S, Sp, FA. Richmond, Ind	Kingsbury, Milford K, LD, FA. Seattle
Kee, Beryl, UD, Ed. Seattle	Kinleyside, Antoinette, LD, Ed. Seattle
Kearney, Harold J, LD, Bus. Olympia	Kinne, Frances Ellnor, LD, FA. Seattle
Keck, Helen Maude, LA FA. Seattle	Kinney, Eleanor Virginia, LD, LA. Vancouver
Kee, Sing-Tah, UD, LA. China	Kinsey, R Isabelle, LD, Sci. Seattle
Keefe, Robert M, LD, Bus. Snohomish	Kinsey, Ronald C, Unc. Bus. Seattle
Keeler, George H, LD, Bus. Sequim	Klpp, Letha Julie, UD, Ed. Seattle
**Keeley, Ralph C, Sp, Eng. Portland, Or	Kirby, Cleo L, LD, Bus. Kohlotus
Keelling, Charles Robert, LD, Bus. Seattle	Kirby, Ruth, LD, LA. Seattle
Keen, Ruth M, LD, LA. Seattle	Kirkham, Bernice M, UD, LA. Springfield Mo
Keene, Elmer Lester, UD, EE. Yakima	**Kirkpatrick, Edward R, Sp. Bus. Portland Or
Keene, Mildred Yockey, Sp, Ed. Seattle	Kirkpatrick, Mary E, Grad. Oconto, Neb
Keeney, Leo D, LD, Fish. Bothell	Kirkwood, John Erdmann, LD, Bus. Seattle
Kehres, Harvey E, UD, Sci. Seattle	Kitamura, Morimitsu, Grad. Japan
Kelfer, Lyman Beecher, UD, FA. Winesap	Kittredge, Marguerite E, Grad. Seattle
Kellholtz, Ruth W, LD, Sci. Seattle	Kitzinger, Beatrice, LD, LA. Aberdeen
Kellam, Sumner, LD, Bus. Seattle	Kizer, Kenneth E, LD, Ed. Tacoma
Kelleher, John E, Unc. Law. Renton	Kleber, Narcissa E, LD, LA. Seattle
Keller, Bertha Mae, LD, LA. Spokane	Klein, Lillian Ruth, LD, FA. Seattle
**Keller, Earl Wright, LD, Bus. Payette, Id	Kleinberg, Lena, LD, LA. Seattle
Kelley, Barbara, Rosella, UD, Bus. Seattle	Kleinberg, Lester, UD, Bus. Seattle
Kelley, Cecil S, UD, ME. Seattle	Klenck, Herman A, UD, LA. Kallispell Mont
**Kelley, Eugene Lester, Bus. Seattle	Klingensmith, Clement E, UD, CE. Yakima
Kelley, Francis Joseph, UD, ChE. Seattle	Klock, Lois Adele, LD, LA. Seattle
Kelley, Gertrude Blanche, 2d, FA. Tacoma	Klug, Vivian C, LD, Bus. Seattle
Kelley, Jane Isabelle, UD, Sci. Walla Walla	Knapp, Ed Bradford, LD, Phar. Lynden
Kelley, Martha, UD, LA. Snohomish	**Knapp, Eugene H, H, Unc. Law. Davenport
Kellner, Chester R, UD, Bus. Hamilton	Knapp, Frances E, UD, LA. Lynden
Kellogg, Chester Orson, UD, Bus. Hoquiam	**Knapp, Frederick B, Bus. Bellevue
Kellogg, Howard B, UD, Sci. Seattle	**Knapp, Howard S, FA. Davenport
Kellogg, Jesse I, UD, Bus. Puyallup	Knapp, Joseph A, LD, LA. Vancouver
Kellogg, Marion Colie, LD, FA. Seattle	Knickrehm, Marie M, UD, Sci. Yakima
Kelly, Naomi Lucile, LD, FA. Tacoma	Knight, Chas W, LD, Bus. Spokane
Kelso, Kenneth, LD, LA. Seattle	Knight, Sarah Inez, LD, FA. Seattle
Kemp, James W, LD, EE. Seattle	Knight, Spencer T, UD, Bus. Spokane
Kendall, Julia N, LD, Ed. Seattle	Kniseley, John M, LD, Eng. Seattle
**Kendall, Ver T, LD, Bus. Seattle	Knisley, Malcolm Briggs, LD, Bus. Seattle
Kenin, Harry M, Grad. Long Beach	Knox, Esther V, UD, FA. Cashmere
Kennedy, Bernice, LD, LA. Seattle	Knox, Marian, Unc. FA. Seattle
Kennedy, Lottie Ann, LD, LA. Union	**Knox, Robert W, UD, CE. Portland, Ore
Kennett, John Joseph, 3d Law. Seattle	Knox, Rosella, LD, LA. Albany, Ore
Kenyon, Geo. D, LD, Bus. Seattle	Knudsen, Brede, Unc. Kennecott, Alaska
**Keppinger, Urban A, Bus. Portland, O	Knudson, Roy G, UD, Bus. Seattle
Kerr, Genevieve, UD, LA. Corvallis, Or	**Knull, Clarence W, Bus. London, O
Kerr, Hollis E, LD, Eng. Mt. Vernon	Knappe, Lyman M, UD, Min. Fairbanks, Alaska
Kerr, John Leeds, LD, LA. Seattle	Koba Tsuneyshi, LD, Sci. Seattle
Kerrigan, Lillie, LD, FA. Seattle	Kobler, Anna Helen, UD, Ed. Seattle
Kerschmer, V, LD, Bus. Seattle	Kobbervig, Theodore, LD, Sci. Everett
Kersten, Clinton William, LD, Bus. Seattle	Koch, Fred C, LD, LA. Ritsville
**Ketcham, Albert R, Jour. Seattle	Kocher, Virgil I, LD, Bus. Porter
Ketcham, Laura, UD, LA. Seattle	Koenig, John, LD, LA. Pt. Hope, Alaska
Ketcham, Leland Hoskins, LD, LA. Seattle	Koepeke, Carolyn, UD, Sci. Seattle
Ketchum, William Rabun, LD, Bus. Seattle	Koester, Anthony C, LD, Bus. Seattle
Kettenring, Elizabeth E, LD, LA. Vancouver	**Kohn, Harry D, Sp. Bus. Seattle
Keyes, Donald C, LD, Sci. Bellingham	Kohne, Russell Avery, LD, Bus. Everett
Keyes, Harmon Edward, Grad. Seattle	**Kohner, Frank F, Bus. Spokane
Keyes, Howard C, LD, Sci. Bellingham	Koppe, Clifford A, LD, ME. Vancouver
Keyes, Roswell Park, LD, Sci. Bellingham	Kopstein, Ethel, LD, Bus. Seattle
Keys, Anna, LD, LA. Seattle	Kotick, Ottmar Frank, LD, Sci. Olympia
Kianholz, Mabel Lucile, Unc, FA. Spokane	Krabbe, Hans Mogens, LD, ME. Bellingham
**Kiddier, Jay D, LD, Bus. Seattle	Kracower, Rose, UD, Bus. Seattle
Kieburzt, G Harold, LD, EE. Seattle	**Kraft, Edwin A, LD, Eng. Seattle
Kief, C W, LD, CE. Seattle	Kraft, Gertrude, Grad. Seattle
Kienholz, Leon Edward, UD, Sci. Spokane	Kraft, Marjorie G, LD, Ed. Seattle
Kiesel, Anne Teresa, LD, FA. Butte, Mt	Kraft, Warren Earl, LD, LA. Seattle
Kidder, Perry E, LD, Sci. Seattle	Kramer, Karl W, UD, ME. Seattle
Kilbourne, Carleton, LD, ME. Seattle	Krankila, Milda Caroline, LD, LA. Seattle
Kimball, Jessie M, LD, FA. Seattle	Kravik, Viola A, UD, Jour. Everett

**Kreishar, Harold C, LD, Bus.....Seattle
 Krengel, Walter F, LD, LA.....Seattle
 Kretschmann, Herbert F, LD, LA.....Seattle
 Krieger, Bernice R, UD, LA.....Portland, Or
 Krieger, Geo Edwrd, UD, EE.....Seattle
 Krieger, Joseph E, UD, Bus.....Spokane
 Krogstad, Elva, UD, LA.....Seattle
 Krogstad, Gladys, LD, LA.....Seattle
 Kronfield, Eugenia, Unc, Bus.....Seattle
 Krueger, Karl Francis, LD, Bus.....Seattle
 Krull, Louis, LD, EE.....Tacoma
 Krull, Walter, LD, Eng.....Tacoma
 Krum, Carolyn Russell, LD, Bus.....Spokane
 Kruse, Henry Ross, UD, EE.....Seattle
 Kuebler, Ada Dorothy, UD, Sci.....Seattle
 Kuehnert, J F, LD, Bus.....Seattle
 Kuehuss, Mildred, LD, Bus.....Wenatchee
 Kuhn, Edwin E, LD, Bus.....Spokane
 Kullberg, LeRoy George, LD, FA.....Seattle
 Kumbblad, William Gustav, LD, ChE. Seattle
 Kums, Eugene L, LD, Bus.....Seattle
 **Kunz, Samuel W, LD, EE.....Seattle
 Kuwahara Tosak Carl, Unc, Sci.....Japan
 Kuykendall, Lenore, UD, Sci.....Olympia
 Kvindlog, Dorothy, LD, FA.....Bothel
 Kwok, Ping-Chin, UD, Bus.....China
 Kylstra, John, UD, CE.....Portland, Ore

LaBossier, Inez J, UD, Sci.....Seattle
 LaPollette, Marion B, LD, Eng.....Spokane
 LaFrance, Arthur C, LD, Bus.....Hamilton, Mt
 Lafromboise, Clarence B, LD, Sci.....Enumclaw
 Laigo, Pablo Hipol, LD, Sci.....Philippines
 Laird, Thelma L, LD, LA.....Seattle
 Lake, Florence E, UD, Bus.....Pt Townsend
 Lambert, Rebecca K, UD, Ed.....Seattle
 Lamborn, Morris F, LD, Bus.....Olympia
 Lammers, Frieda, UD, LA.....Pt Townsend
 Lamont, Ralph H, LD, Bus.....Seattle
 Lamp, Raymond H, LD, Bus.....Harrington
 *Lamp, Wallace G, Sp, Sci.....Seattle
 Lamping, May Pratt, LD, FA.....Seattle
 Lampkin, Thomas E, LD, Phar.....Seattle
 Lamson, Joseph Voris, LD, EE.....Spokane
 Lance, Helen, UD, Sci.....Seattle
 Lane, Dorothy, Grad.....Seattle
 Lane, Glen L, LD, Eng.....Boysds
 Lane, Ralph Belford, LD, EE.....Bellingham
 Lange, Margaret G, LD, Bus.....Okanogan
 Langhorne, Clifford M, LD, LA.....Tacoma
 Langlie, Arthur Bernard, UD, LA.....Seattle
 Langlie, Joseph Winfield, LD, Bus.....Seattle
 Langlow, Wesley A, LD, LA.....Tacoma
 Lanigan, Edward John, LD, EE.....Roslyn
 **Lankenau, Walter H, Grad.....Seattle
 Lanning, Oscar D, LD, EE.....McClary
 Lansdowne, Elizabeth, LD, FA.....Everett
 LaPlant, Mary, Unc, LA.....Sedro Woolley
 Large, George Elwyn, UD, ME.....Seattle
 Large, Joseph G, LD, Eng.....Seattle
 Lark, Bert Webb, Grad.....Seattle
 Larkin, Frances Emma, LD, LA.....Seattle
 Larkin, Lucretia, LD, FA.....Seattle
 Larkin, Virginia M, UD, Sci.....Seattle
 Larkin, Virginia M, UD, Sci.....Seattle
 Larsen, Bernard M, Grad.....Hayward, Wis
 Larsen, Einar T, Unc, Bus.....Tacoma
 Larsen, Walter E, UD, CE.....Pt Townsend
 Larson, Gus Ferdinand, LD, LA.....Seattle
 Larson, Luella Clair, UD, LA.....Seattle
 Latimer, Allan W, UD, Bus.....Seattle
 Latimer, Walter B, UD, EE.....Seattle
 Latta, Susan H, UD, Sci.....Seattle
 *Laub, Gaston V, Sp, Bus.....Seattle
 Lauber, Albert, LD, For.....Seattle
 Laudy, Henry A, LD, Bus.....Everett
 Laue, Ewart S, LD, Bus.....Wapato
 Laurie, Helen, Unc, Sci.....Tacoma
 Lautz, Fritz A, UD, Bus.....Seattle

Lavery, Earl Jewell, LD, Phar.....Seattle
 LaVigne, Naomi, LD, LA.....Seattle
 LaViolette, Doris W, 1st Law....Bremerton
 **Law, Charles H, Sp, Law.....Seattle
 Lawdahl, William C, UD, Bus.....Des Moines, I
 Lawrence, Henry, Unc, Phar.....Seattle
 **Lawrence, William R, Sp, Bus.....Seattle
 Lawson, Gay Lillian, UD, Ed.....Seattle
 Lawson, Maurice W, Grad.....Blanchard
 Lawson, Thomas S, LD, LA.....Spokane
 Lawton, Winona May, LD, Bus.....Seattle
 Law-Yow, Rose, LD, FA.....Seattle
 Lea, Dorothy M, LD, LA.....Spokane
 Leaf, Alice, UD, Ed.....Seattle
 Lease, Howard S, UD, Bus.....Great Falls, Mt
 Leavers, Luke Leroy, Unc, FA.....Wenatchee
 Leavitt, Darrell G, LD, Sci.....Sedro-Woolley
 LeCocq, Charles Edward, LD, CE.....Lynden
 LeCocq, Edward Anthony, LD, LA.....Lynden
 Lee, Agnes J, LD, Sci.....Bellingham
 Lee, Darrell, LD, Bus.....Seattle
 Lee, Edith Chalcraft, LD, LA.....Seattle
 Lee, Frank A, UD, Sci.....Seattle
 Lee, Mrs Judith, LD, LA.....Seattle
 Lee, Louisa, Grad.....Seattle
 Lee, Mayme Sullivan, LD, LA.....Seattle
 Lee, Robert E, Jr, LD, Min.....Colville
 Lee, Robert James, UD, EE.....Enumclaw
 Leeper, Agnes, LD, Bus.....Seattle
 Leeper, Helen Gertrude, LD, LA.....Seattle
 Leevy, Harold Dreile, LD, Bus.....Seattle
 Legg, Emily, UD, LA.....Seattle
 Legg, Emmett J, UD, CE.....Seattle
 Leghorn, Frances Marie, Grad.....Seattle
 **Legg, Herschel Dent, CE.....Four Lakes
 Lehde, Raymond C, LD, EE.....Seattle
 Lehman, Arnold, LD, Phar.....Seattle
 Leise, John Frederic, LD, Sci.....Seattle
 Leiser, Mary S, LD, LA.....Spokane
 Lelli, Scraphia, Unc, Bus.....Puyallup
 Leithead, Donald B, LD, Sci.....Seattle
 Lennon, Ruth B, LD, LA.....Seattle
 Lennox, Edward Henry, LD, Fish. Tacoma
 Lemon, Harry E, UD, For.....Seattle
 Lemon, Harry E, LD, For.....Seattle
 Lentz, Katherine J, Grad.....Seattle
 Leo, Laurabelle, LD, LA.....Seattle
 Leonard, Edward Watson, LD, FA.....Winlock
 Lerifin, Morris, LD, Eng.....Seattle
 Lerner, Hyman, LD, Sci.....Seattle
 **LeRoy, H Wade, LD, For.....Seattle
 LeRoy, Lois F, UD, Sci.....Seattle
 Leslie, Max Franklin, LD, Bus.....Spokane
 Lester, Verna May, LD, LA.....Seattle
 Levin, Ben Z, UD, Bus.....Spokane
 Levinson, Jack Jerome, LD, LA.....Spokane
 Levinson, Herbert, LD, Bus.....Seattle
 Levinson, Oscar, LD, Bus.....Seattle
 Levinson, Samuel L, UD, LA.....Tacoma
 Lewis, Edith, UD, Bus.....Seattle
 Levittin, Isaac, LD, EE.....Seattle
 Levy, David F, UD, LA.....Seattle
 Levy, Lucille, LD, LA.....Seattle
 Levy, Melvin P, LD, LA.....Seattle
 Lewarch, Alma, LD, LA.....Seattle
 **Lewis, Aubrey Cleo, LA.....Seattle
 Lewis, Clara May, LD, Ed.....Seattle
 Lewis, Edna M.....Fairbanks, Alaska
 Lewis, Elleen, LD, Sci.....Twin Falls, Ida
 Lewis, Elizabeth, LD, LA.....Seattle
 Lewis, Evan L, LD, For.....Seattle
 Lewis, Fred Adrian, LD, Bus.....Ritzville
 Lewis, Hubert P, Unc, Bus.....Aberdeen
 Lewis, James W, LD, EE.....Seattle
 Lewis, John, Unc, Bus.....Coulee City
 Lewis, Josephine, LD, LA.....Seattle
 Lewis, Leon, LD, LA.....Seattle
 Lewis, Llewellyn S, LD, Eng.....Seattle
 **Lewis, Ruben, UD, ME.....Seattle

Lewis, Sara, LD, Bus.....Coulee City
 Li, Chia-Chi, UD, LA.....China
 Licorenko, A, LD, EE.....Russia
 Lien, Laura E, UD, Bus.....Bremerton
 Lies, Margaret, UD, LA.....Waterville
 Lighthouse, Henry A, LD, Ed.....Seattle
 Lightle, Otto Cuthbert, LD, Bus.....Seattle
 Lillis, Dan Custer, LD, ME.....Tacoma
 Lillis, Jack, LD, LA.....Wenatchee
 Lim, James Kimkok, LD, Bus.....China
 Lincoln, Roland L, LD, EE.....Seattle
 Lind, Andrew William, LD, LA.....Seattle
 Lind, Harry Milton, Grad.....Seattle
 Lindberg, Martha, LD, LA.....Tacoma
 Lindberg, Ruby C, UD, Bus.....Seattle
 Lindblom, Roy E, UD, EE.....Seattle
 Lindholt, Alfred, LD, LA.....Seattle
 Lindner, Isabel, LD, LA.....Seattle
 Lindquist, Irene, UD, LA.....Hancock
 Lindsay, Margery Alice, UD, Jour.....Seattle
 Lindsay, Mazie P, UD, Bus.....Seattle
 Lindsey C Abbott, Unc, Law.....Seattle
 Linklater, Ruth Margaret, UD, LA.....Seattle
 Lingo, George A, LD, Eng.....Seattle
 Linn, Harold Adolphus, LD, LA.....Seattle
 Linn, Robert Donald, LD, Bus.....Aberdeen
 Lippy, Faye, LD, Bus.....Seattle
 Lipshutz, Olivia, LD, LA.....Portland, Or
 Lipsky, Beth, LD, LA.....Seattle
 Lister, Violet, LD, Ed.....Prineville, Or
 Liston, Edward John, LD, LA.....Orillia
 Liston, James G, UD, LA.....Orillia
 Littell, Max E, LD, Bus.....Scottsburgh, Ind
 Little, Dorothy Vernon, Grad.....Seattle
 Little, Earle B, LD, Bus.....Chelan
 Little, G F, LD, ChE.....N Westminster, BC
 Little, Herbert S, 2nd Law.....Seattle
 Little, Jane Elizabeth, LD, LA.....Tacoma
 Little, Marjorie, LD, Bus.....Seattle
 Littlefield, Dorothy, UD, LA.....Seattle
 Littlefield, Lena, Unc, FA.....Seattle
 Littlefield, Waldo, LD, Bus.....Seattle
 Lively, James W, LD, EE.....Portland, Or
 Livengood, Joe, LD, Bus.....Seattle
 Lloyd, Helen Agatha, LD, FA.....Seattle
 Lloyd, Katherine, LD, ChE.....Seattle
 Lloyd, Percy, LD, Bus.....Everett
 Loacker, W J, LD, LA.....Seattle
 Lochow, William, LD, EE.....Maple Valley
 Lochte, William A, Unc EE.....Seattle
 Lockerby, Desiah, UD, LA.....Seattle
 Lockerby Frank M, UD, Jour.....Seattle
 Lockhart, Bert, LD, Bus.....Wapato
 Loe, Ralph Harvey, LD, Sci.....Seattle
 Loe, Lawrence Frank, UD, Bus.....Seattle
 Loewer, Charles H, LD, Bus.....Seattle
 Logg, Frank S, UD, Bus.....Seattle
 Loken, Leo W, LD, Bus.....Everett
 Lombard, Dean, LD, FA.....Seattle
 Lombardine, Herbert C, LD, Bus.....Seattle
 Lonergan, Thyra, LD, LA.....Seattle
 Long, Arthur E, Spec.....Kirkland
 Long, James Glenn, Sp, Eng.....Seattle
 Long, Louise Lyons, LD, Bus.....Seattle
 Long, Paul M, LD, Sci.....Seattle
 Loomis, Glee Anette, LD, LA.....Spokane
 Loomis, Minerva U, Grad.....Seattle
 Lopez, Russell E, LD, Bus.....Chicago, Ill
 **Lopp, Dwight T, UD, FA.....Seattle
 Lopp, Irene, LD, FA.....Seattle
 Lorah, James R, Grad.....Seattle
 Lorah, Mrs Marian, LD, Sci.....Seattle
 Lorbeer, Norma E, UD, Sci.....Seattle
 Lorenz, Crescent, UD, LA.....Tacoma
 Loughary, Jack B, LD, Bus.....Sedro-Woolley
 Loughlen, Paul Egbert, LD, Bus.....Puyallup
 Love, Elizabeth J, UD, Sci.....Tacoma
 Lovering, Frank, Unc, Bus.....Seattle
 **Loving, Thad Byron, LD, Sci.....Seattle
 Lovering, Winnie, Unc, Bus.....Seattle

Low, Josephine, LD, Sci.....Dayton
 Low, Nellie, UD, LA.....Dayton
 Lowe, Ben F, UD, Ed.....Tacoma
 Lowe, Grace Pearle, LD, LA.....Mt Vernon
 Lowery, Paul Russell, LD, EE.....Wellington
 Lowman, Vivien Guy, LD, LA.....Seattle
 Luccock, Harriett, Grad.....Seattle
 Lucas, Marian, LD, LA.....Seattle
 Lucas, Martha, UD, LA.....Seattle
 Lucas, Helen Mary, LD, Ed.....Bremerton
 Luckner, John T, UD, Sci.....Salem, Or
 Ludwig, Ernest M, LD, LA.....Sheridan, Or
 Ludwigs, Frank H, UD, Bus.....Walla Walla
 Luft, Max, LD, ME.....Bremerton
 Lukens, Frederick, LD, Eng.....Missoula, Mont
 Lund, John G, LD, LA.....Seattle
 Lund, John V, LD, LA.....Seattle
 Lund, Walter William, UD, FA.....Seattle
 Lundberg, Vivian M, UD, LA.....North Bend
 Lundell, Berger F, UD, Lib.....Issaquah
 Lundell, Signe A, LD, LA.....Issaquah
 Lundstrum, Allan Winston, UD, EE.....Yakima
 Lungreen, Rolfe P, LD, For.....Seattle
 Lurie, David, LD, ChE.....Seattle
 Lurie, Manuel, LD, LA.....Seattle
 Lurie, Manuel, LD, LA.....Seattle
 Lust, Harold, UD, Minn.....Minneapolis, Minn
 Luten, Miriam, UD, Sci.....Seattle
 Lutz, Edna Maud, LD, FA.....Pt Townsend
 Lycette, Edythe, LD, FA.....Spokane
 **Lycette, John Philip, LD, LA.....Spokane
 Lynch, Mrs. Helen W, LD, FA.....Seattle
 Lynch, Isabelle Reis, UD, Sci.....Yakima
 **Lynch, Joseph H, Bus.....Bonners Ferry
 Lynch, Julia, LD, LA.....Seattle
 Lynch, Rose, UD, Sci.....Seattle
 Lyons, Harry Albert, LD, ChE.....Seattle
 Lyon, Henry A, UD, Jour.....Seattle
 Lyter, Dorothy, LD, LA.....Seattle
 Lyter, Helen, LD, LA.....Seattle

MacAdams, William B, Unc, Bus.....Seattle
 MacArthur, Archibald A, UD, Jour.....Seattle
 MacAulay, Gordon A, LD, Bus.....Seattle
 MacClain, A Lewis, Grad.....Seattle
 Macdonald, Elizabeth, LD, FA.....Seattle
 Macdonald, G Bora, LD, LA.....Seattle
 Macdonald, Gordon, LD, LA.....Hoquiam
 Macdonald, Helen O, LD, Ed.....Seattle
 Macdonald, Louise, LD, LA.....Seattle
 Macdonald, Margaret Ruth, LD, Ed.....Seattle
 Macdonald, Sadie B, UD, Ed.....Seattle
 Macdonell, Vernon E, UD, CE.....Somers, Mt
 Macfarlane, Mrs Carrie, LD, Sci.....Seattle
 Macfarlane, Don A, Grad.....Seattle
 Macfarlane, Margretta, LD, LA.....Seattle
 Macfarlane, Robert S, 3rd Law.....Seattle
 MacKenzie, John H, UD, Min N Westminster
 MacKenzie, Robert G, LD, CE.....Everett
 MacKenzie, R L, UD, EE.....Vancouver, BC
 MacKinnon, Donald L, LD, Eng Juneau, Ala
 MacLean, Duncan G, LD, Eng.....Seattle
 MacLean, William Wallace, Unc, Eng Spokane
 MacLafferty, Taylor D, LD, ME.....Tenino
 MacNair, Jay, LD, Bus.....Seattle
 MacNaughton, Edwin L, LD, Min.....Seattle
 MacNicol, Anna E, UD, LA.....Seattle
 MacNicol, Jane, LD, Phar.....Seattle
 MacPherson, Dorothy C, LD, FA.....Seattle
 MacPherson, Fraser K, UD, Bus.....Pysht
 Maas, Harold Anthony, LD, Bus.....Seattle
 **Machin, George L, Bus.....Bellingham
 Mackintosh, D Cline, LD, LA.....Seattle
 Macomber, Hazel, LD, Sci.....Hanford
 Madden, Ned D, LD, Bus.....Caldwell, Ida
 Mades, J Allen, LD, Bus.....Seattle
 Mage, Jack, LD, Sci.....Seattle
 Magill, Fulton, UD, Min.....Tacoma
 Maginnis, William J, LD, Bus.....Seattle

Magnuson, Clarence E, UD, Bus....Tacoma	Matthews, Dorothy H, LD, FA.....Seattle
Magnuson, Freeman G, LD, Bus..Pt Roberts	Matthews, Julian O, 1st Law.....Seattle
Magnusson, G Alfred, Grad.....Seattle	Matthews, Paul R, LD, LA.....Seattle
Mahaffey, Audley, UD, LA.....Tacoma	Matthews, Stewart, LD, Sci.....Seattle
Mahl, Alvina M, LD, Bus.....Seattle	Mattice, Menzo J, LD, Sci.....Sedro Woolley
Mahnken, Henry H, LD, Sci.....Seattle	Mattison, George, Unc, Phar..Rice Lake, Wis
Malakoff, Abe, UD, Phar.....Seattle	Mattson, John I, LD, FA.....Hoquiam
Malakoff, Milton S, LD, LA.....Seattle	Mattson, Raynold, LD, Sci.....Portage
Malloy, Kathleen J, UD, Ed.....Mannette	Mauerer, Margaret M, LD, FA.....Pe Ell
Maloney, Gilbert M, UD, Sci.....Everett	Maughan, Wilbur M, LD, Bus.....Spokane
Manard, Lucille A, LD, LA.....Seattle	Maulden, Robert W, Grad.....Seattle
Manchester, Arlow Rex, LD, For....Almira	Mauren, Signe E, LD, Ed.....Seattle
Mandanas, Francisco, LD, Sci..Philippines	Maus, Mildred P, UD, Sci.....Seattle
Mangele, Hans, LD, FA.....Seattle	Mayer, Herbert E, LA, ME.....Seattle
Manion, Harold, LD, LA.....Seattle	Mayes, Evelyn, LD, Sci.....Seattle
Manley, Marlon, LD, LA.....Tacoma	Mayfield, Lola, Unc, Bus.....Seattle
Manlucu, Alfonso, LD, EE.....Philippines	Meyhew, Lewis L, LD, LA.....Bremerton
Mann, Harold N, LD, LA..Concordia, Kans	Mayne, Catherine, LD, LA..Livingston, Mt
Mann, Harold Warren, LD, Bus.....Seattle	Maxwell, Willard, LD, Bus.....Seattle
Manning, Edward, LD, Bus.....Everett	Mazna, George J, LD, Bus.....Spokane
Manning, Harold O, LD, EE.....Seattle	McAtee, Frayne L, Unc, CE..Twin Falls, Ida
Manny, Mary A, UD, Sci.....Seattle	McAbee, Grace, LD Ed.....Seattle
Mansfield, Allan H, LD, Sci.....Everett	McAdam, William R, Grad.....Seattle
Mansur, Howard, Unc, Eng.....Ellensburg	McAnally, Bonnie, LD, LA.....Yakima
**Mapleton, Frank H, Sp, Eng.....Seattle	McAtee, James E, LD, Eng.....Seattle
Mapes, Carl H, UD, LA.....Seattle	McBee, Alfred, Unc, Law..Coeur d'Alene, Ida
Marchand, Leslie A, UD, LA.....Seattle	McBroom, Nellis B, LD, LA.....Chehalis
Mardon, T Allen, UD, EE.....Seattle	McCabe, Clair, UD, Bus.....Seattle
Marino, Frank, LD, Fish.....Seattle	McCabe, Helen D, LD, Ed.....Seattle
Marlon, Alden R, LD, Bus.....Yakima	McCaig, Grace R, LD, Sci.....Seattle
Marlon, Armand M, LD, Bus.....Seattle	McCane, Ames, LD, EE.....Seattle
Maris, Dorothy, LD, LA.....Seattle	McCann, Gertrude, LD, LA.....Everett
Markewitz, Ernest, LD, LA..Portland, Or	**McCarthy, Charles A, UD, Bus..Pullman
Markay, John, LD, Bus.....Seattle	McCarthy, Clara G, UD, LA.....Seattle
Markham, Blanche E, UD, Ed.....Seattle	McCarthy, Donal F, UD, ChE.....Seattle
Marks, W. Harry, Spec....Cleveland, Ohio	McCarthy, James F, LD, Sci..Wallace, Ida
Markusen, Grace K, LD, LA.....Seattle	McCarthy, Joseph L, UD, Bus.....Seattle
Marling, Samuel Earle, UD, For...Seattle	McCarthy, Virginia, LD, LA.....Seattle
Marquette, Elizabeth, Grad.....Seattle	McCartney, Jules, LD, Phar.....Seattle
Marquez, Juanito, LD, Phar..Philippines	McCarty, Frances P, LD, LA.....Seattle
Marquis, Harold H, UD, Jour.....Everett	McCarty, Marguerite, LD, LA.....Seattle
Marquis, Ralph W, LD, Sci.....Everett	McCaughey, Douglas A, LD, Bus..Seattle
Marriott, Geo T, UD, Bus.....Seattle	McCausland, Lonan, UD, Ed.....Seattle
Mars, Annice R, LD, LA.....Snohomish	McClarren, Arthur E, LD, EE.....Seattle
Marsh, Earl R, LD, LA.....Vancouver	McClintock, Sarah G, UD, Sci.....Spokane
Marsh, Eugene E, 1st Law..Metolius, Or	**McClinton, Harold, LD, LA.....Seattle
Marsh, Francis E, 1st Law..Metolius, Or	McClung, Lucile E, LD, LA.....Portland, Or
Marsh, Urma L, UD, FA.....Dryad	McClung, Olney, LD, Sci.....Seattle
Marshall, Harry Leslie, LD, EE.....Seattle	McClung, R E, 2nd Law.....Seattle
Marshall, Roy S, LD, Bus.....Seattle	McClure, Charles W, LD, LA.....Seattle
**Marshall, Thomas, Unc, Law....Deming	McClure, Frank B, LD, Bus.....Seattle
Martens, Aleda, LD, Phar.....Seattle	McClymont, Wallace, LD, Bus....Aberdeen
Martin, Harold Morris, UD, Bus.....Spokane	McColloch, Elizabeth Z, UD, LA.....Seattle
Martin, Leota Irene, LD, LA.....Newport	McConihe, Ruth N, LD, Sci.....Seattle
Martin, Morris A, Spec.....Boise, Ida	McConnell, Avis Jones, Unc, LA.....Seattle
Martin, O Harry, LD, LA.....Foster	McConnell, Miriam E, LD, FA....Burns, Or
Martin, Otto W, LD, LA.....Parkland	McCord, Evans S, Grad.....Seattle
Martin, Paul M, LD, ME.....Puyallup	McCormick, George P, UD, Min....Portage
Martin, Perle F, LD, Bus.....Woodland	McCormick, Lewis M, Sp, Sci..Mansfield, W
**Martin, Rowland J, UD, LA.....Seattle	McCoy, Fred Burton, LD, For.....Seattle
Masatomi, Emile, UD, LA.....Spokane	McCoy, Newton C, Unc, Law..Castle Rock
Mason, Dorothy June, LD, FA.....Seattle	McCoy, William Neil, LD, Bus..Oakesdale
Mason, Earl C, LD, EE.....Bremerton	McCracken, Willis, LD, EE.....Seattle
Mason, Lloyd C, LD, Bus.....Bellingham	McCrary, Alfred, LD, Bus.....Seattle
Mason, Muriel V, UD, Bus.....Seattle	McCredy, Noble F, UD, Bus.....Seattle
Mast, Helen R, LD, LA.....Seattle	McCredy, Rosamond P, UD, LA.....Seattle
Masters, Aaron A, LD, LA.....Harrison, Ida	McCroskey, Mary Lee, LD, Sci....Colfax
Masuda, Thomas, Unc, LA.....Ellensburg	McCroskey, Wendell H, LD, Bus...Seattle
Masul, Leonard G, Grad.....Seattle	McCulloch, William, Grad..Medberry, N D
Matheson, Roy G, UD, Bus.....Seattle	**McCullough, Charles J, LD, CE.....Seattle
Mathieu, B, Grad.....Seattle	McCush, George W, UD, Bus....Bellingham
Mathis, Madge, UD, LA.....Seattle	McCush, Lillian E, LD, Sci.....Bellingham
Mathis, Hortense, LD, LA.....Seattle	McCush, Lillian E, LD, LA.....Bellingham
Mathews, Elizabeth, LD, Sci.....Seattle	McDonagh, William J, LD, Bus.....Seattle
Matson, R, LD, Sci.....Seattle	McDonald, Albert Floyd, Spec.....Seattle
Matsumura, Shigeo, LD, Bus.....Seattle	McDonald, Alice G, UD, LA.....Seattle
Matthis, William, LD, Bus....Bellingham	McDonald, Darrel W, LD, Sci.....Seattle
Matthis, Rudolph, LD, Bus.....Bellingham	McDonald, Donald T, LD, ME.....Seattle
Mattson, Clarence W, LD, Eng.....Seattle	McDonald, Lamora, UD, LA.....Spokane
Matthews, Chas W, Fr, Engr.....Seattle	McDonald, Rachel, LD, Ed.....Kent

McDonald, Willard, LD, Bus.....	Buckley
McDonnell, Donald N, UD, Bus.....	Seattle
**McDonough, Otto G, LD, LA.....	Seattle
McDonough, Raphael C, LD, Sci.....	Everett
McDougall, Emily Mande, LD, FA.....	Seattle
McDowell, Frances M, LD, LA.....	Seattle
McDowell, John W, UD, Sci.....	Seattle
McDowell, Marion Louise, LD, LA.....	Seattle
McDowell, Ruth J, UD, Sci.....	Seattle
McEachern, Gertrude, LD, LA.....	Seattle
**McEuen, Marshall Lee, Grad.....	Seattle
McEwen, Daniel, Sp, Jour.....	Seattle
McFadden, David J, LD, LA.....	Bremerton
McFall, Clifford B, LD, Sci.....	Everett
McFee, Bertha L, LD, Phar.....	Seattle
McGaffey, Wesley F, UD, For.....	Everett
McGavy, Robert E, LD, Min.....	Seattle
McGill, Merrie P, UD, LA.....	Seattle
McGirr, Thelma, UD, Bus.....	Seattle
McGoldrick, Jack H, LD, LA.....	Vancouver
McGroddy, T J, LD, Bus.....	Seattle
McGuffey, Jennie G, Grad.....	Seattle
McGuinness, Ellen, UD, LA.....	Snohomish
McGuire, Louis H, LD, CE.....	Seattle
McHale, Anne L, UD, Sci.....	Seattle
McHarris, Lindsay, LD, Bus.....	Seattle
McHugh, John, Unc.....	Spokane
McHugh, John O, Unc, Bus.....	Spokane
McHugh, John J, UD, Bus.....	Seattle
McIlvain, Dorothy S, Unc, FA.....	Seattle
McIlraith, Mervyn C, LD, EE.....	Seattle
McIndoe, William C, Grad.....	Portland
McInroe, Lloyd G, LD, Bus.....	Walla Walla
McInroe, Walter G, LD, LA.....	Walla Walla
**McIntyre, Harry John, Grad.....	Seattle
**McIntyre, Harry R, Bus.....	Seattle
McIntyre, Norman, Unc, Law.....	Skykomish
McKay, Francis J, LD, LA.....	Spokane
McKay, Helen, LD, LA.....	Seattle
McKay, A Laurie, LD, LA.....	Seattle
McKay, Lorraine, LD, LA.....	Seattle
McKay, Mary H I, Grad.....	Seattle
McKay, Preston F, LD, LA.....	Seattle
McKenzie, Doris H, Unc, Sci.....	Vancouver, BC
McKenzie, Edward G, LD, Ed.....	Seattle
McKenzie, Frank W, LD, ME.....	Seattle
McKim, James, UD, Min.....	Puyallup
McKinley, John B, LD, ME.....	Touche
McKinney, C T, 2nd Law.....	Wawawai
McKinstry, O H, UD, Bus.....	Seattle
McKisick, Joe C, UD, Bus.....	Wallace, Ida
McKnight, Edwin Thor, UD, Sci.....	Seattle
McKnight, John T, LD, Sci.....	Ole Elum
McLaren, Arnold, LD, Bus.....	Seattle
McLaughlin, Margaret, LD, Sci.....	Seattle
McLean, Allan G, LD, LA.....	Seattle
**McLean, Cyrus, For.....	Hoquiam
**McLean, Kenneth D, Bus.....	Boise, Ida
McLellan, Margaret, LD, LA.....	Seattle
McLellan, Maxine, UD, FA.....	Seattle
McLellan, Roy D, Grad.....	Tacoma
McLeod, Annabel Jean, UD, Ed.....	Athens, Or
McLeod, Beatrice, Grad.....	Seattle
McLeod, Frances L, LD, LA.....	Seattle
McLeod, Horace, Unc, LA.....	Tacoma
McLeod, Mildred M, LD, LA.....	Seattle
McLeod, Neil, LD, LA.....	Seattle
McManus, Edward, LD, Bus.....	Seattle
**McMillin, Harvey C, LD, Fish.....	Seattle
McMonagle, Alberta, LD, LA.....	Seattle
McNeill, Harold E, LD, EE.....	Tacoma
McNichols, Mrs Esther Z, UD, LA.....	Adair, Ia
McPhee, Alex S, LD, EE.....	Auburn
McPhee, Jack, LD, EE.....	Seattle
McPherson, Allen R, LD, Bus.....	Asotin
McPherson, Dorothy Vesta, UD, FA.....	Seattle
McPherson, Lenore, Unc.....	Seattle
McQuaid, Alice E, UD, LA.....	Seattle
McQuaid, Thelma, LD, Sci.....	Seattle
McRae, Edwin, LD, For.....	Sedro-Woolley
McRae, Florence, LD, Ed.....	Spokane
McRae, Isabel Reid, LD, FA.....	Seattle
McSorley, M Lillian, Unc, LA.....	DeLavan, Wis
McVay, John, LD, Sci.....	Seattle
McVay, Vilo C, UD, LA.....	Seattle
McWatters, Dorothy, UD, Ed.....	Seattle
**McWhorter, Sabina M, CE.....	Dubois, Id
Meacham, Lucia F, LD, LA.....	Seattle
Meand, Lawrence, LD, Bus.....	Wenatchee
Meader, Alice Lillian, Unc, FA.....	Puyallup
Meaker, Marian Esther, LD, Ed.....	Seattle
Means, G Earl, LD, EE.....	Anacortes
Medeen, Carl A, LD, EE.....	Edmonds
Medill, Alice May, UD, Sci.....	Seattle
Medin, Rita Belle, UD, FA.....	Seattle
Medler, Louisa, LD, Bus.....	Seattle
Meenach, Harrison W, UD, Sci.....	Seattle
Mehner, Margaret, LD, Ed.....	Bremerton
Meier, Elsie A, Grad.....	Seattle
Meisnest, Frederick H, UD, Fish.....	Seattle
Meisnest, Kenneth R, LD, Bus.....	Seattle
Melcher, Joy M, LD, EE.....	Seattle
Melder, F Eugene, LD, Bus.....	Seattle
Meldrum, Mrs Helen S, Grad.....	Spokane
Melson Ray C, LD, Bus.....	Seattle
Meneely, A Howard, Grad.....	Seattle
Mentzer, Cyrus Joseph, LD, LA.....	Tacoma
Mercier, Germaine, Grad.....	Seattle
Mercier, Jeanne F, Grad.....	Seattle
Merriam, Clair V, UD, EE.....	Nooksack
Merrill, Edna Sophia, LD, LA.....	Sunnyside
Merrill, Elliott, LD, EE.....	Charleston
Merrill, Frances E, LD, LA.....	Seattle
Merrill, Grant W, UD, FA.....	Seattle
Merrill, Marion S, LD, FA.....	Seattle
Merritt, Fred S, 1st Law.....	Seattle
Merritt, Marjorie, LD, FA.....	Seattle
Meserve, Kenneth A, LD, Bus.....	Portland, Or
Messor, Elisabeth B, UD, Sci.....	Rolling Bay
Metcalfe, Berniece, LD, LA.....	Wenatchee
Metcalfe, Kenneth A, LD, Bus.....	Tacoma
Metzker, Edith B, LD, FA.....	Seattle
Metz, J Ernest, LD, Bus.....	Post Falls, Ida
Metz, Ralph D, LD, Bus.....	Post Falls, Ida
Metzger, Frank D, Fr, Eng.....	Seattle
Meyer, Flora, LD, LA.....	Seattle
Myer, Herman H, LD, LA.....	Seattle
Meyer, Ivan W, LD, Eng.....	Walla Walla
Meyer, May, UD, LA.....	Seattle
Mayer, Walter C, LD, Bus.....	Seattle
Mayers, Leo E, LD, Bus.....	Colfax
Mayers, Sheldon C, LD, Phar.....	Seattle
Meyring, Eugene, Unc, Ed.....	Seattle
Michael, Gladys J, LD, Ed.....	Tacoma
Michaelsen, Helen M, LD, Sci.....	Odesa
Michie, Frances E, LD, LA.....	Seattle
Mickelson, John L, UD, Bus.....	Seattle
Middlebrook, Curtis L, LD, Bus.....	Seattle
Middlebrook, Verna, LD, Bus.....	Tolt
Middleton, Campbell M, LD, Min.....	Seattle
Middleton, Howard N, LD, Bus.....	Seattle
Middleton, Hugh M, LD, Bus.....	Seattle
Middleton, Keith C, UD, Bus.....	Seattle
Middleton, Maurine, LD, LA.....	Seattle
Mifflin, Wesley J, 1st Law.....	Seattle
Migliavacca, Sero C, LD, Bus.....	Bremerton
Miles, Norris A, LD, Ed.....	Seattle
Miles, Wilma, Grad.....	New Plymouth, Ida
Mill, Louise, LD, LA.....	Everett
Miller, Alfred A, LD, LA.....	Seattle
Miller, Beatrice K, LD, LA.....	Yakima
Miller, Bernice, LD, LD.....	Seattle
Miller, Carl Adam, UD, LA.....	Seattle
Miller, C Edward, LD, LA.....	Seattle
Miller, Cecil Chase, LD, Sci.....	Seattle
Miller, Charles J, UD, Bus.....	Seattle
Miller, Charlotte E, Unc, LA.....	Seattle
Miller, Edlstrud S, Grad.....	Seattle
Miller, Elsie M, UD, Sci.....	Seattle
Miller, Ethel M, UD, LA.....	Winslow

Miller, Ethel T, UD. FA.....Cle Elum	Morford, S Harold, LD. LA.....Seattle
Miller, Eugene F, LD. Bus.....Seattle	Morgan, Alvin Quentin, LD. For.....Seattle
Miller, Gilbert A, LD. For. Kalispell, Mont	Morgan, Anna Ethel, Unc. Sci.....Yakima
Miller, George I, LD. EE.....Seattle	Morgan, Lella Fay, LD. Ed.....Seattle
Miller, Hope E, LD. LA.....Seattle	Morgan, Mary Inez, LD. LA.....Seattle
Miller, Isidor, LD. Bus.....Seattle	Morgan, Miles E, Grad.....Seattle
Miller, Keith, LD. LA. Anchorage, Alaska	Morgan, Verona, UD. Bus.....Seattle
Miller, Laura A, LD. LA.....Seattle	Morhous, Delbert M, LD. EE.....Seattle
Miller, Margaret E, UD. LA.....Tacoma	Morimoto, Takiji, Grad.....Japan
Miller, Marie Martha, Unc. Sci. Snohomish	Morrill, Andrew J, LD. Bus.....Coville
Miller, Marienne E, UD. LA.....Tacoma	Morris, Alvin, LD. Bus.....Seattle
Miller, Martha, Unc. LA.....Seattle	Morris, Edna, UD. Sci.....Kettle Falls
**Miller, Max, UD. Jour.....Everett	Morris, Edward E, Unc. Law.....Seattle
Miller, Mervyn B, LD. For.....Seattle	Morris, Eunice, UD. Bus.....Kirkland
Miller, Raymond S, UD. Bus.....Tacoma	Morris, John Harwood, LD. Bus.....Seattle
Miller, Robert E, UD. ME.....Puyallup	**Morris, John R, Sp. Bus.....Spokane
Miller, Vera Winona, LD. LA.....Pomeroy	Morris, Margaret E, UD. Sci. Medical Lake
Miller, Zelma E, LD. LA.....Goldendale	*Morris, Mrs. Marie B, Nur.....Seattle
Miller, Zephorina, LD. LA.....Pomeroy	Morris, Ruby A, LD. Sci.....Seattle
Millett, Walter E, LD. Bus.....Seattle	Morrison, J Alene, LD. LA.....Anacortes
Millett, Willard T, LD. For.....Seattle	Morrison, Marion, LD. LA.....Seattle
Milligan, Donald A, LD. LA.....Seattle	Morrison, Mary M, UD. FA.....Seattle
Millman, Leonard G, LD. LA.....Seattle	Morrison, Millar A, LD. Bus.....Spokane
Millman, Loren H, UD. Jour.....Seattle	Morrison, Millard C, UD. LA.....Seattle
Mills, Archibald R, LD. Bus.....Curtis	Morrison, Wendell W, LD. Bus.....Buena
Mills, Elizabeth, LD. LA.....Seattle	Morrow, Leona M, 1st Law.....Seattle
Mills, J. Russell, UD. For.....Seattle	Morrow, Ralph, LD. Bus.....Asotin
Milne, Donald, LD. Bus.....Seattle	Morrow, Velda Stella, Unc. Law.....Seattle
Millot, John A, LD. LA.....Stockett, Mont	Morse, Laura J, UD. LA.....Seattle
Mines, Henry W, 2nd Law.....Seattle	Moseley, Maud L, LD. LA.....Seattle
Minish, John Mc. UD. LA.....Seattle	Moser, Will, LD. LA.....Seattle
Miner, Eva Lee, LD. Sci.....Seattle	**Moses, Curtiss J, LD. CE.....Langley
Minor, John V, LD. LA.....Kelso	Mosher, Robert L, LD. Bus.....Spokane
Minshall, Robert J, UD. CE.....Tacoma	Mosler, Muriel B, LD. LA.....Seattle
Minter, Laurabelle, LD. LA.....Tacoma	Mosler, Nate, LD. Bus.....Seattle
Minton, Harriet L, UD. LA.....Seattle	Mott, Ava Francella, LD. LA.....St. John
Mischler, James, LD. LA.....Seattle	Motteler, Deryl L, UD. Bus.....Leavenworth
Misra, Ben, LD. LA.....India	Moulton, Morris E, LD. Bus.....Seattle
Mitchell, Constance, LD. Sci. Portland, Ore	Mount, Charles W, Jr. LD. Bus.....Spokane
Mitchell, Dorothy, LD. LA. Longmont, Colo	Mowan, George W, LD. Bus.....Tonasket
Mitchell, L Lillian, UD. Ed.....Corwith, Ia	**Muckleston, Stanley M, UD. Fish Seattle
Mitchell, Lynnwood G, Spec.....Seattle	Mudge, John S, LD. Bus.....Aurora, Or
Mitchell, Mary, LD. LA.....Seattle	Mueller, John A, LD. Eng.....Tacoma
Mitchell, Verne H, LD. Bus.....Kennewick	Mueller, Marguerite E, LD. Sci.....Seattle
Mithong, Otis J, UD. EE.....Rockford	Mulhern, John W, LD. Sci.....Seattle
Mitsunaga, Taiyn, Grad.....Seattle	Mullen, Claude, Grad.....Seattle
Mittleberger, Marion C, UD. Jour.....Seattle	Mullen, Doris, UD. Sci.....Seattle
Mitzel, Richard F, LD. LA.....Yakima	**Mullin, James T, Bus.....Seattle
**Moen, Oley James, Bus.....Bellingham	**Mullin, Samuel E, Jr. LD. LA. Bellingham
Moffitt, Robert C, Grad.....Spokane	Mulnix, Forrest Edward, Spec.....Seattle
Mynskens, Henry H, UD. Sci.....Pt Orchard	Mulvey, Charles R, UD. Min.....Seattle
Mober, Maybelle, Unc. LA Two Harbors Minn	Munson, James E, UD. Fish.....Seattle
Mohr, Esther, Grad.....Seattle	Murphine, Thomas Jr. LD. LA.....Seattle
Mohr, Jennie, LD. LA.....Seattle	Murphy, Frances, LD. Sci.....Sumner
Moldstad, Harold, 1st Law.....Mt Vernon	Murphy, George W, LD. Bus.....Seattle
Moll, Celeste, UD. LA.....Arlington	Murphy, Harold M, UD. Bus.....Arlington
Moll, Phyllis A, LD. LA.....South Bend	**Murphy, Harry Charles, Bus.....Seattle
Monnes, Erling, Grad.....Seattle	Murphy, Judith E, LD. Sci.....Kirkland
Monroe, George Henry, LD. LA.....Ferndale	Murphy, Mary E, LD. Sci.....Seattle
Monso, Marvel, LD. LA.....Bellingham	Murphy, Matthey W, UD. EE.....Seattle
Monson, George M, LD. Bus.....Govan	Murphy, Virgil A, LD. LA. Black Diamond
Monsen, Henry Emil, Spec. Portland, Ore	Murray, Charles J, UD. Sci.....Tacoma
Monteagle, Vera M, UD. Ed.....Seattle	**Murray, James B, LD. Bus.....Seattle
**Montgomery, Earl F, LD. FA.....Spokane	Murray, Hattie S, Grad.....Mullan, Ida
Montgomery, Lois, LD. FA. Red Lodge, Mont	Murray, Valois A, LD. Bus.....Seattle
Montilla, Francisco, LD. Bus.....Philippines	Murton, Clarence C, LD. LA.....Seattle
Montilla, Jose R, LD. Sci.....Philippines	Mutchler, Joseph E, LD. LA. Center, N Dak
Moody, Clark W, UD. Bus.....Vancouver	Muth, R Lawrence, LD. EE.....Seattle
Moore, Chas. A, Grad.....Seattle	Myers, Abe, LD. ME.....Seattle
Moore, Charles S, Spec.....Seattle	Myers, Carlyle G, LD. Sci.....Seattle
Moore, Gerald Edward, Grad.....Seattle	Myers, Donald P, UD. Bus.....Seattle
**Moore, Harold W, Unc. Bus.....Filler, Ida	Myers, Elmer W, LD. EE.....Seattle
Moore, Lynn C, UD. Sci.....Wenatchee	Myers, Evelyn, LD. Ed.....Seattle
Moore, Marguerite E, LD. LA.....Seattle	Myers, Jack W, 1st Law.....Seattle
Moran, C Gilbert, 3rd Law.....Seattle	Myers, Jean, LD. FA.....Seattle
Moran, Charlotte, LD. Bus.....Seattle	Myers, Wendell B, LD. Bus.....Seattle
Moran, Helen F, LD. LA.....Seattle	
Moran, Wendell, LD. EE.....Seattle	
Morcom, Herbert T, LD. Bus.....Seattle	
More, Helen G, Grad.....Walla Walla	Nadeau, Mrs. Eleanore, LD. FA.....Seattle
	Nadeau, George F, LD. Bus.....Seattle

Naden, Edwin T, LD, Eng.....Olympia
 Nagamine, Frank N, LD, FA.....Seattle
 Nagle, Paul, LD, Phar.....Seattle
 Nagler, Russell A, UD, Sci.....Yakima
 Nahhas, Emmeline B, LD, LA.....Seattle
 Nash, Lole, LD, LA.....Brewster
 Neal, W. Edwin, UD, Bus.....Seattle
 Nealand, Isabelle M, LD, LA, Portland, Or
 Neaville, John G, LD, LA.....Seattle
 **Neely, J Ralph, LD, LA.....Spokane
 Neely, Sue, UD, Sci.....Tacoma
 Neer, Harry, LD, ME.....Seattle
 Neff, Anna Esther, LD, Sci.....Seattle
 Neft, Anna, LD, Bus.....Seattle
 Neft, Rebecca, LA, Bus.....Seattle
 Neft, Tillie, LD, Bus.....Seattle
 Nell, Delores, UD, LA.....Seattle
 Neilson, Evelyn F, LD, Sci.....Seattle
 Neilson, Irene M, UD, FA, Kalispell, Mont
 Nelson, Arthur E, Sp, Sci.....Seattle
 Nelson, Arvid J, LD, For.....Montborne
 Nelson, Carl, UD, CE.....Winslow
 Nelson, Esther O, LD, Sci.....Mt Vernon
 Nelson, Frances M, LD, LA, Lake Park, Minn
 Nelson, O V, Eng.....Winslow
 Nelson, B Malcolm, Unc, Bus.....Seattle
 Nelson, Frances, LD, LA.....Seattle
 Nelson, Hilding, UD, Bus.....Seattle
 Nelson, James B, LD, Min.....Seattle
 Nelson, Josephine, LD, LA.....Seattle
 Nelson, Loyd E, LD, Bus.....Seattle
 Nelson, Minnie M, UD, Jour.....Seattle
 Nelson, Ned H, UD, ChE.....Seattle
 Nelson, Norline, LD, LA.....Mt Vernon
 Nelson, Norman M, LD, Fish.....Pt Angeles
 Nettleton, Alice Marie, UD, LA.....Tacoma
 Nettleton, Marie, Unc, Ed.....Kirkland
 Neubauer, Herbert F, UD, Phar.....Tacoma
 Neumann, Russel A, LD, Eng.....Seattle
 Neville, Jack A, LD, CE.....Seattle
 Neville, Laura May, LD, LA.....Seattle
 Newberry, Lora Mary, LD, LA.....Seattle
 Newberry, Earl P, LD, FA.....Portland, Or
 Newbury, Kirsten Larsen, Grad.....Seattle
 Newbern, Richard L, Spec.....Seattle
 Newcomb, Muriel R, LD, FA.....Olympia
 **Newcomb, Wallace R, Fish.....Olympia
 Newdall, Clifford O, LD, FA, Leavenworth
 Newell, James E, LD, EE.....Hoquiam
 Newell, Laura, UD, Sci.....Everett
 Newlove, Gwendolyn G, UD, LA, Ft Lawton
 Newman, Andrew W, Unc, Law.....Elma
 Newman, Anne, UD, LA.....Everett
 Newman, Lee L, Sp, Bus.....Seattle
 Newton, Mary E, LD, LA.....Camp Lewis
 Newton, May E, Unc, LA.....Spokane
 **Newton, Ralph E, Bus.....Seattle
 Ney, Marie E, LD, Ed.....Seattle
 Neylan, Margaret, UD, FA, Elkaden, Iowa
 Nichols, Harold E, LD, Sci.....Seattle
 Nichols, Mary, LD, Ed.....Seattle
 Nichols, Ross, LD, EE.....Seattle
 Nicholson, Catherine, LD, FA.....Seattle
 Nicholson, Georgia, LD, Ed.....Seattle
 Nicholson, Leo Roy, LD, Phar.....Ellensburg
 Nicholson, Leo S, 1st Law.....Yakima
 Nicholson, Margie, UD, Ed.....Seattle
 Nicholson, Sinclair, LD, Bus.....Seattle
 Nicholson, William Otto, LD, Eng.....Tacoma
 Nittel, Lucille F, LD, Bus.....Monroe
 Nickerson, Priscilla, LD, Bus.....Seattle
 Nicolai, Florice, LD, Bus.....Sunnyside
 Nieder, Dave, LD, LA.....Seattle
 Nielsen, Evelyn F, LD, Sci.....Seattle
 Nielsen, Thora E, UD, Ed.....Spokane
 Nielsen, William Alfred, UD, Bus.....Spokane
 Nielsen, Jorgen, LD, LA.....Nelson, Minn
 Niemela, I William, LD, LA.....Centerville
 Nievinski, Joseph, 1st Law.....Seattle
 Nims, Helen B, LD, LA.....Seattle

Nishinaini, John I, LD, For.....Seattle
 Nishio, Frank, LD, EE.....Seattle
 Nishiaki, Nobuo, UD, Jour.....Japan
 Nitschke, Paul H, LD, Sci, The Dalles, Or
 Nix, Martha J, UD, LA.....Seattle
 Noble, Alvord D, LD, CE.....Seattle
 **Noel, Lionel S, LD, EE.....Snohomish
 Nolan, Michael J, UD, CE.....Seattle
 **Nolan, Vincent A, Bus.....Seattle
 Noland, Frank H, Sp, Bus.....Bremerton
 Noll, Mark D, UD, Bus.....Seattle
 Noll, Pauline, UD, Sci.....Seattle
 Nollan, William, LD, LA.....Kirkland
 Nolte, Elizabeth, LD, Bus.....Seattle
 Nordahl, John G, LD, EE.....Seattle
 Nordale, Alton G, LD, Bus Fairbanks, Ala
 Nordale, Anita M, LD, Ed, Fairbanks, Ala
 Nordholm, Olga E, UD, LA.....Seattle
 Nordlie, Glenn J, UD, EE.....Seattle
 Nordstrom, Esther C, LD, FA.....Seattle
 Nordstrom, Everett, UD, Bus.....Seattle
 Norie, Mary E, LD, LA.....Seattle
 Norquist, Melvin A, UD, Bus.....Seattle
 Norris, Ralph H, LD, Bus.....Seattle
 Northfield, Walter D, UD, Bus.....Seattle
 Norton, Robert, 2nd Law.....Olympia
 Norton, Theodore E, LD, LA.....Tacoma
 Norway, Charis Julia, LD, FA.....Seattle
 Norwood, Helen E, LD, FA.....Seattle
 Notkin, James B, Unc, ME.....Russia
 Novlan, Emma Patricia, LD, Ed.....Seattle
 Nowak, Helen M, UD, LA.....Seattle
 Nowell, Frances, LD, LA.....Seattle
 Nuelsen, Harry E, UD, Bus.....Yakima
 Numoto, Minoru, LD, EE.....Bellevue
 Nusbaum, Dean E, LD, LA.....Seattle
 Null, J Edward, Jr, LD, LA.....Seattle
 Nutley, Cyril Arthur, LD, Bus.....Seattle
 Nydin, Clarence Alfred, UD, Bus.....Seattle
 Nygard, Erik, UD, Eng.....Seattle
 Nyquist, Marie R, UD, Phar.....Seattle

Oakes, Ruth Elsie, UD, Sci.....Seattle
 Oakley, Mary E, Grad.....Seattle
 Oass, Dan, LD, FA.....Seattle
 Obien, Mauro G, Fr, Eng.....Philippines
 O'Brien, Edith, LD, LA.....Seattle
 O'Brien, Wayne, LD, Bus.....Seattle
 O'Brien, John Jennings, Unc, Law.....Seattle
 O'Callaghan, Claud V, UD, Bus.....Seattle
 Ochs, Martha E, LD, LA.....Seattle
 O'Connell, Charles W, UD, Bus.....Seattle
 O'Connell, Thomas A, UD, For.....Seattle
 Oconner, Clinton Jay, LD, Bus.....Tacoma
 O'Conner, Walter B, LD, Bus.....Seattle
 Odegard, Peter H, LD, LA.....Seattle
 Odegard, Paul N, LD, CE.....Seattle
 Odegard, Peter H, UD, LA.....Seattle
 Odegard, Thomas, LD, LA.....Seattle
 O'Donnell, Helen P, Unc, Bus.....Pt Angeles
 Oertel, Anna Mary, LD, FA.....Seattle
 Ogarta, Kokichi, Grad.....Japan
 **O'Heron, Thomas, EE.....Seattle
 Okajima, Thelma S, Unc, Ed.....Seattle
 Okazaki, Iwao, LD, LA.....Seattle
 **O'Keefe, John Bayard, Bus.....Boise Ida
 Olcott, Virginia, LD, Sci.....Billings, Mont
 O'Leary, John E, LD, CE.....Mt Vernon
 O'Leary, Kathleen, LD, FA.....Seattle
 Oleson, Mildred E, LD, LA.....Seattle
 Oleson, Thomas R, LD, LA.....Seattle
 Olin, Thomas H, LD, Bus.....Seattle
 Oliver, Orno R, LD, ChE.....Alderton
 Oliver, Roneta, UD, LA.....Seattle
 Olmsted, Ealle, LD, FA.....Enterprise, Or
 **Olsen, Alf E, LD, Bus.....Redmond
 Olsen, Amos F, UD, Bus.....Davenport
 Olsen, Blanche A, LD, Bus.....Seattle
 **Olsen, Carl M, LD, CE.....Stanwood

Olsen, Esther O, LD, LA.....	La Center
Olsen, Franklin E, LD, Bus.....	Tacoma
Olsen, Frederick C, Unc, LA.....	Zillah
Olsen, Roy N, LD, Bus.....	Stanwood
Olsen, Thomas L, LD, LA.....	Seattle
Olsen, Beatrice M, UD, Sci.....	Madras, Or
Olsen, Carl, LD, LA.....	Seattle
Olsen, Genevieve, LD, LA.....	Raymond
Olsen, Helen F, UD, Ed.....	Seattle
Olsen, Jenny E, LD, LA.....	Monroe
Olsen, Marguerite, UD, Ed.....	Tacoma
Olsen, Mrs Marie H, Unc, Ed.....	College Place
Olsen, Norma L, LD, FA.....	Seattle
Olsen, Olga C, LD, LA.....	Madras, Or
*Olsen, Ronald L, Ed.....	Seattle
Olsen, Warren B, LD, Min.....	Tacoma
Olavang, Abe M, LD, Eng.....	Tacoma
Olwell, Eugene E, UD, Bus.....	Seattle
Olwell, Murray Michael, LD, Bus.....	Seattle
O'Neal, Harold E, LD, Sci.....	Yakima
O'Neal, Henry C, LD, Eng.....	Portland, Or
O'Neill, Arthur W, Spec.....	Seattle
O'Neill, Muriel R, LD, Bus.....	Spokane
O'Neill, Larkin A, UD, Bus.....	Seattle
O'Neill, W T, LD, Bus.....	Seattle
Ong, Emma Z, LD, FA.....	Seattle
Onsum, Elizabeth, LD, FA.....	Seattle
Orne, Stanley, UD, Jour.....	Seattle
Orosa, Jose Y, LD, Bus.....	Philippines
Orr, Gilbert M, LD, For.....	Woodburn, Or
Orr, Paul J, UD, Ed.....	Redmond
*Orr, Robert L, ME.....	Portland, Or
Orrett, Barbara P, LD, Bus.....	Tacoma
Orth, Maurice W, LD, LA.....	Seattle
Orton, Helen Cook, LD, LA.....	Aberdeen
Orvis, John M Jr, LD, Bus.....	Missoula, Mont
Osa, Lorents, LD, Sci.....	Tacoma
Osawa, Haru, LD, LA.....	Seattle
Osberg, Anita Lenore, Unc Bus.....	Seattle
Osborne, Cleo C, LD, Eng.....	Tacoma
Oscar, Orland, LD, Bus.....	Seattle
Osginack, John A, UD, LA.....	Lacey
Osgood, Ernest W, LD, FA.....	Seattle
Ostensen, Floyd C, UD, Sci.....	Bremerton
Ostrand, Hildur W, UD, LA.....	Seattle
Ostrom, Cyrus Warren, UD, EE.....	Seattle
Otis, Kenneth D, LD, Bus.....	Seattle
Otis, Leota B, UD, LA.....	Olympia
Otis, Virgil B, LD, Bus.....	Olympia
Ouellette, Victor R, LD, LA.....	Olympia
Overacker, Myron T, LD, Eng.....	Seattle
Overguard, Julia O, LD, Sci.....	Seattle
Overmeyer, Sara M, LD, LA.....	Chehalis
Owen, Mrs Elizabeth H P, Grad.....	Seattle
Owings, Mary M, LD, LA.....	Olympia
Owsley, Joseph H, UD, EE.....	Seattle
Oxman, J Donald, Unc, Law.....	Seattle
Pace, Roy W, LD, EE.....	Tacoma
Pacey, John G Jr, LD, Bus.....	Seattle
Packard, Dexter B, UD, ChE.....	La Conner
Packenham, Howard, UD, Ed.....	Boise, Ida
Packer, Florence M, UD, Ed.....	Seattle
Padden, Mildred F, LD, Bus.....	Seattle
Paddock, Faith E, UD, LA.....	Seattle
Padelford, Morgan G, LD, FA.....	Seattle
Paine, Lawrence C, LD, LA.....	Spokane
Palacol, Augustine P, LD, LA.....	Seattle
Palmer, Burton E, LD, Min.....	Portland, Or
Palmer, Carolyn R, LD, LA.....	La Grande, Or
Palmer, James H, Unc, Law.....	Seattle
Palmer, Stuart C, LD, Bus.....	Ellensburg
Panger, Arnold Henry, LD, Min.....	Seattle
Pannebaker, M E, UD, LA.....	E Waterford, Pa
Paradis, Ernest V, LD, EE.....	Seattle
Parent, Amand, LD, ChE.....	Tacoma
*Parish, Herbert F, UD, Bus.....	Centralia
Park, Arthur Brock, LD, ChE.....	Seattle
*Parke, Charles G, LD, Sci.....	Seattle
Park, Madge, UD, Ed.....	Seattle
Parker, Arline L, LD, Bus.....	Seattle
Parker, David L, LD, Bus.....	Vashon
Parker, Lester T, 1st Law.....	Elma
Parker, Marie, LD, Ed.....	Seattle
Parker, William D, LD, ChE.....	Seattle
Parkhouse, Russell K, LD, Bus.....	Tacoma
*Parkins, Wright Almer, UD, ME.....	Seattle
Parks, Clarence T, LD, Fish.....	Pt Angeles
Parks, Dorris B, LD, LA.....	Seattle
Parr, James F, UD, EE.....	Seattle
Parrington, Elizabeth, UD, LA.....	Seattle
Parrish, Frank Jr, UD, Bus.....	Seattle
Parrish, Karl B, LD, Bus.....	Seattle
Parry, Jane, LD, Ed.....	Seattle
Parson, Maude, LD, Sci.....	Colfax
Partow, Katharine, UD, Sci.....	Olympia
Pascual, Eduardo F, Unc, Ed.....	Philippines
Pascual, Felix F, LD, Ed.....	Philippines
Pashley, Harry B, LD, ME.....	Seattle
Patchett, Benjamin F, LD, ChE.....	Ellensburg
Patchett, Glenn A, LD, For.....	Ellensburg
Patchin, Wilber H, Grad.....	Birdsview
Faton, Donald G, LD, Bus.....	Cashmere
*Patton, Frank W, Eng.....	Twin Falls, Ida
Patten, Maurice W, UD, ME.....	Seattle
Patten, William T, Jr, LD, For.....	Seattle
Patterson, Bernice, UD, Sci.....	Puyallup
Patterson, Hiram S, Grad.....	Seattle
Patterson, Bert, LD, LA.....	Bellingham
Patterson, Ira F, LD, ChE.....	Seattle
Paulik, Andrew, LD, EE.....	Seattle
Paulsen, Pauline, LD, Sci.....	Seattle
Paulson, Olive, LD, Bus.....	Seattle
Paxton, Mrs Vera S, LD, FA.....	Seattle
Payne, M Caroline, LD, Ed.....	Seattle
Peabody, Emery F, LD, Bus.....	Seattle
Peake, Rowell Bruce, Unc, Bus.....	Seattle
Pearce, Richard, LD, FA.....	Seattle
Pearson, E Holger, LD, EE.....	Oak Point
Pearson, Paul E, LD, Bus.....	Seattle
Peck, Hazel, Unc, LA.....	Seattle
Peebles, Orville E, LD, LA.....	Hogquam
Peel, Marian, LD, LA.....	Seattle
Peers, Rose F, Unc, Sci.....	Wenatchee
Peick, Clyde F, UD, For.....	Okanogan
Pelham Irene I, Spec, LA.....	Seattle
Pels, Freda E, UD, Bus.....	Seattle
Pels, Gladys Irene, LD, LA.....	Seattle
Pels, Irma M, UD, Sci.....	Seattle
*Penas, Nazario, UD, For.....	Seattle
Pence, David W, LD, Eng.....	Portland, Or
Pendleton, Helen, LD, LA.....	Seattle
Penewell, Marion F, LD, Sci.....	Seattle
Penland, Ellledge R, 1st Law.....	Seattle
Penn, Joseph Hill, LD, Bus.....	Seattle
Pennell, Dorothy W, UD, LA.....	Seattle
Pennell, Geneva E, LD, LA.....	Seattle
Pentzer, Kathryn D, LD, FA.....	Seattle
Paplow, Marion L, LD, LA.....	Seattle
Pepper, Echo D, Grad.....	Seattle
Percival, Winnifred, UD, Sci.....	Seattle
Perdue, Edgar A, LD, Bus.....	Seattle
Perelle, Charles W, LD, Eng.....	Jumeau, Aka
Perine, Jack C, LD, LA.....	Seattle
Perkins, Dorris Ellen, LD, FA.....	Seattle
Perkins, Julian F, LD, Bus.....	Tacoma
Perkins, Melville F, UD, ChE.....	Seattle
Perkins, Sam H, LD, Bus.....	Montesano
Perlin, Solomon, UD, CE.....	Seattle
Perrine, Charles S, LD, LA.....	Seattle
Perry, Frank Wesley, Spec.....	Seattle
Perry, Geneva M, LD, FA.....	Seattle
Perry, Gladys H, UD, Bus.....	Portland, Or
Perry, Mary B.....	Tacoma
Personens, Lewis H, LD, ChE.....	Seattle
Persons, George A, UD, EE.....	Clarkston
Peters, A Carroll, LD, Bus.....	Seattle
Peters, George D Jr, LD, ME.....	Kennewick
Peters, Henry W, LD, LA.....	Tonasket

Peters, John Albert, LD, ME.....Spangle
 Peters, Louis C, LD, Bus.....Spangle
 Peterson, Alvin A, Unc.....Seattle
 Peterson, Agnes C, UD, LA.....Moscow, Ida
 Peterson, Carl H, LD, Bus.....Hoquiam
 Peterson, Carrie H, UD, Ed.....Wardner, Ida
 Peterson, Grace H, Sp, Ed.....Seattle
 Peterson, Howard H, LD, EE.....Walla Walla
 Peterson, Howard J, LD, EE.....Sunnyside
 Peterson, Inez H, UD, LA.....Seattle
 Petersen, Irene, LD, LA.....Seattle
 Peterson, E Jennings, LD, LA.....Seattle
 Peterson, Karl, Spec.....Seattle
 Peterson, Katherine W, LD, FA.....Spokane
 Peterson, La Verne B, LD, Eng.....Seattle
 **Peterson, Loren Allen, LD, Bus.....Seattle
 Peterson, Ole T, Unc, Ed.....Seattle
 Peterson, Richard F, LD, Bus.....Tacoma
 Peterson, Thelma R, LD, FA.....Granger
 Peterson, Walter R, UD, Sci.....Pt Blakely
 Peterson, Wendell F, LD, Bus.....Seattle
 Peterson, A William, LD, Bus.....Clarkston
 Peterson, William Payson, LD, Bus.....Alpine
 Peterson, William Payson, LD, Bus.....Alpine
 Pett, Thomas A, LD, LA.....Ilwaco
 Petrie, James, LD, Eng.....Seattle
 Petrie, Roy A, LD, Bus.....Clarkston
 Pettit, Helen, LD, Sci.....Seattle
 Pettit, Henry M, Unc, EE.....Seattle
 Pettitt, Ruth, UD, LA.....Kent
 Pettyjohn, Carrie M, UD, Sci.....Prescott
 Peyer, Ethan Allen, 3rd Law.....Seattle
 Pfeuffer, Philip P, UD, Sci.....Seattle
 Phelps, Ellen, LD, LA.....Seattle
 Phillips, Beth, LD, Sci.....Seattle
 Phelps, Howard R, LD, Eng.....Tacoma
 Phillips, John O, LD, LA.....Seattle
 Phillips, Philip M, UD, Bus.....Yakima
 Phillips, Lydia H, LD, LA.....Wilmington, Del
 Phillips, Richard T, UD, Bus.....Seattle
 Phillips, Constance, LD, FA.....Seattle
 Phillips, Harry J, Unc, Eng.....Seattle
 Phillips, Herbert, LD, Eng.....Seattle
 Phillips, J Clarence, LD, LA.....Almira
 Phillips, John W, LD, Phar.....Hadlock
 Phillips, Phyllis, LD, FA.....Seattle
 Phillips, Walter T, LD, LA.....Tacoma
 Phillips, Guy F, Unc, LA.....Four Lakes
 Platt, Genevieve M, UD, LA.....Seattle
 Platt, Harrod D, Unc, Eng.....Seattle
 Pickard, W Burt, LD, Bus.....Seattle
 Pickett, May Belle, Unc, LA.....Mt Vernon
 Pidduck, Marjorie K, LD, FA.....Seattle
 Pierce, Aleene E, UD, Ed.....Seattle
 Pierce, Clarence W, 1st Law.....Seattle
 Pierce, Fred R, 2nd Law, Sacramento, Cal
 Pierce, Dorothy A, LD, LA.....Seattle
 Pierce, Gordon, LD, Bus.....Seattle
 Pierce, Robert O, Unc, Bus.....Seattle
 Pierce, Warren D, LD, Bus.....Seattle
 Pierson, Richard H, LD, Bus.....Seattle
 Pigott, Stephen R, LD, Min.....Seattle
 Pinkott, Keith A, LD, Eng.....Rossland, B.C.
 Pinkerton, Ralph W, LD, LA.....Tacoma
 Pinkham, Ada D, Sp, LA.....Seattle
 Pitcher, Helen D, LD, FA.....Pt Madison
 Pitcher, Susannah, LD, LA.....Centralia
 Pitmann, William H, UD, LA.....Latah
 Pitts, Edna C, LD, LA.....Seattle
 Pittwood, Louis C, LD, Bus.....Seattle
 **Pitzer, Carl A, UD, FA.....Tacoma
 Place, L Howard, LD, For.....Tacoma
 Plants, Margaret, LD, Bus.....Seattle
 Platt, Ruth E, UD, Sci.....Seattle
 Playter, Charles G, LD, Bus.....Seattle
 Plemon, Gladys May, LD, LA.....Wallula
 Plummer, Morris, UD, Bus.....Pt Townsend
 Plochart, Arthur Dean, UD, Phar.....Tacoma
 Pole, Gordon R, UD, ChE.....Tacoma

Pollard, Jean, LD, LA.....Seattle
 Pollock, Barbara, LD, LA.....Seattle
 Pollock, Maxwell, LD, EE.....Seattle
 Pollom, DeVere Arthur, LD, LA.....Chehalis
 Pond, Elbridge G, LD, Bus.....Seattle
 Pond, Elizabeth B, UD, LA.....Seattle
 Ponder, Russell Lee, LD, LA.....Chehalis
 Pool, William Franklin, UD, LA.....Seattle
 Poole, Bonnie L, LD, LA.....Seattle
 Poole, Florence, LD, Ed.....Seattle
 **Pooley, Frank B, CE.....Spokane
 Poolton, Frederick A, UD, LA.....Seattle
 Pope, Augustus R, UD, ME.....Seattle
 Porep, Edward W, UD, Bus.....Seattle
 Porsch, Rhyhart A, LD, Bus.....Roy
 Porter, Barton F, LD, Bus.....Thorp
 Porter, Dott, UD, Sci.....Seattle
 Porter, Edith M, LD, FA.....Seattle
 Porter, Marie, LD, Ed.....Seattle
 Porter, Mary E, LD, FA.....Seattle
 Portmann, Frieda, LD, LA.....Tacoma
 Posadas, Saturnino B, LD, Phar.....Philippines
 Post, John P, Grad.....Spokane
 Potratz, Helen, Unc, Sci.....Seattle
 Potter, Alden, Unc, Eng.....Ridgefield
 Potter, Claude A, UD, ME.....Ridgefield
 Potter, Mel F, LD, Bus.....Seattle
 Potter, Paul S, LD, Min.....Ovington
 Potter, Ruth A, LD, LA.....Seattle
 Potter, Willis A, LD, LA.....Kalama
 *Powell, Annie T, Nur.....Roslyn
 Powell, Charles L, LD, LA.....Selah
 Powell, Emmogene, LD, LA.....Chehalis
 Powell, Frederick Jr, UD, ChE.....Tacoma
 Powell, Josephine, LD, LA.....Chehalis
 Powell, Mary Dayton, UD, Ed.....Selah
 Powers, Anna M, UD, LA.....Seattle
 Powers, Frances F, UD, LA.....Tacoma
 Powers, Francis J, UD, Bus.....Seattle
 **Powers, Harry K, FA.....Seattle
 Powers, Marie K, UD, LA.....Seattle
 Powley, Louise W, UD, Sci.....Seattle
 Powley, Verna M, LD, LA.....Seattle
 Poyneer, Almeda, LD, LA.....Everett
 **Pozzie, Jerry V, Bus.....Seattle
 Prager, William A, LD, LA.....Seattle
 Pratt, Helen Van Ness, Grad.....Seattle
 Pratt, Mary Sanders, Grad.....Seattle
 Pratt, Reginald, UD, ME.....Spokane
 Preppernan, Charles W, LD, For.....Kent
 Prescott, Maurine, LD, LA.....Seattle
 Presley, Grace, LD, FA.....Seattle
 **Preuss, John Eng.....Marshfield, Or
 Price, Arthur F, LD, For.....Duncan, B C
 Price, E Faye, LD, FA.....Milton, Or
 Price, Harry J, LD, EE.....Miles City, Mont
 **Price, Miles, Bus.....Seattle
 Price, Ruth G, UD, LA.....Seattle
 Priebe, Lloyd H, LD, EE.....Renton
 Prigmore, Robert H, LD, Bus.....Seattle
 Priest, Constance E, LD, Bus.....Seattle
 Pritchard, J Gordon, Grad.....Seattle
 Pritchard, Stanley F, LD, Bus.....Bryn Mawr
 Pritchett, Charles S, LD, Sci.....Freewater, Or
 Protzman, George, UD, Law.....Omak
 Pruessman, Will, LD, Eng.....Seattle
 Puckett, Carl B, LD, EE.....Lumby, B C
 Purcell, J William.....Seattle
 Purdy, Eugene H, LD, ChE.....Seattle
 Putnam, Lawrence E, UD, Min.....Winlow
 Puymbroek, Lena, LD, FA.....Oswega, Or
 Pyle, Mark, UD, EE.....Wenatchee

Quannstrom, Ellen M, LD, Bus.....Seattle
 Quass, Harry Peter, LD, Phar.....Spokane
 Quigle, Helen, LD, LA.....Seattle
 Quigley, Clarence B, UD, Bus.....Seattle
 Quimosing, Dionisio, LD, ChE.....Philippines
 Quinlivan, Quentin L, LD, Sci.....Everett

Rademaker, Lee A, LD, Sci.....Tacoma	Renshaw, Harold B, LD, Bus.....Spokane
Rader, Bernard H, UD, Bus.....Seattle	Resos, Eugenio P, LD, CE.....Philippines
Rader, Martha, LD, Sci.....Walla Walla	Revelle, Helen, LD, LA.....Seattle
Rader, Melvin M, LD, LA.....Walla Walla	Reynolds, Alice L, LD, FA.....Portland, Or
Radford, Zilpha F, LD, FA.....Seattle	**Reynolds, Burton M, UD, Min.....Seattle
Rafferty, Wilma, LD, Ed.....Seattle	Reynolds, Dorothea S, LD, LA.....Seattle
Rahskopf, Lucile, LD, LA.....Seattle	Reynolds, Elliott, 1st Law.....Seattle
Raine, Margaret M, UD, LA.....Seattle	Reynolds, Myron E, LD, Sci.....Butte, Mont
Rainey Homer E, LD, Sci.....Wenatchee	Reynolds, Sewall L, Fr. Eng.....Seattle
Ramm, Aubrey G, LD, EE.....Seattle	Rhinesmith, Orra L, Unc, Sci.....Seattle
Ramsay, James S, LD, Bus.....Ellensburg	Rhodes, Gertrude, LD, Bus.....Yakima
**Ramsey, Edward O, Bus.....Boise, Ida	Rhodes, Leonard, LD, Phar.....Seattle
Ramsey, Gertrude, LD, Bus.....Sandpoint, Ida	Rhodes, Ruth E, LD, Sci.....Seattle
Ramsey, Mary, LD, Sci.....Seattle	Rhodes William, Unc, Bus.....Seattle
Ramstead, Alvin C, LD, Bus.....Everett	Rice, Dorothy E, LD, FA.....Seattle
Ramthun, Lucile L, UD, Bus.....Chehalis	Rice, Mary B, LD, Sci.....Prosser
Randal, Downing B, LD, Sci.....Seattle	Rice, Philip Richard, UD, Eng Walla Walla
Randal, Dudley K, LD, Bus.....Seattle	Rich, Estelle May, Grad.....Seattle
Rank, Carroll P, UD, Bus.....Cashmere	Richards, Bradford A, UD, LA.....Mt Vernon
Rankin, James H Jr, LD, Bus.....Seattle	Richards, Catherine, UD, LA.....Spokane
Rankin, Park W, LD, CE.....Yakima	Richards, Robert E, LD, Bus.....Tacoma
Ranley, Edna M, LD, Bus.....Centralia	Richards, William G, Unc, Bus.....Prosser
Raport, Rubin W, LD, ME.....Seattle	Richardson, Dallas, Unc, LA.....Seattle
Rasmussen, Fred N, LD, EE.....Seattle	Richardson, Elizabeth C, UD, LA.....Yakima
Rasmussen, George V, UD, Ed.....Chewelah	Richardson, Gertrude H, UD, Sci.....Seattle
**Ratliffe, Vernon E, Unc, Bus.....Seattle	Richardt, Preciosa, LD, Ed.....Seattle
Rath, Martha A, UD, Sci.....Seattle	Richford, Maurice A, LD, ChE.....Seattle
Rathbun, John H, LD, EE.....Bellevue	Richmond, Roy S, LD, EE.....Walla Walla
Raven, Ruth, LD, FA.....Monroe	Richter, Franklin F, LD, Bus.....Seattle
Ray, James E, LD, EE.....Seattle	Rickles, Abe L, LD, FA.....Seattle
Raymond, E M, LD, Sci.....Hannibal, Mo	Rickles, Dave N, LD, ChE.....Seattle
Raymond, Julian H, LD, Bus.....Bellingham	Rickles, Nathan, LD, Sci.....Seattle
Rea, Russell Melville, Unc, Eng.....Bellingham	Rieben, Samuel E, LD, LA.....Seattle
Read, Marigold, LD, Bus.....Hoquiam	Rigg, Margaret E, UD, LA.....Seattle
Read, William A, Spec.....Shelton	**Rigg, William D, LD, Eng.....Pullman
Reap, Genevieve, UD, LA.....Tacoma	Riley, Helen, LD, Ed.....Everett
Reaume, Gladys M, LD, LA.....Spokane	Rinehart, Valdmir G, UD, CE.....Seattle
Recart, Edward.....Chile	Ringier, Robert L, LD, Bus.....Seattle
Recart, Horacio, Jr, UD, For.....Chile	Ringstad, Emery T, UD, Bus.....Seattle
Reddy, Eileen A, LD, LA.....Medford, Or	Ripley, Julia, LD, FA.....Seattle
Redfield, Ben, LD, Bus.....Spokane	Risley, Dudley B, LD, Bus.....Seattle
Redick, Harry Horton, Spec.....Seattle	Risley, Eileen D, LD, FA.....Palouse
Redington, Bernice O, LD, FA.....Seattle	Riss, Arthur H, Unc, LA.....Seattle
Redmon, Dorothy B, LD, FA.....Yakima	Risser, Dorothy H, LD, Sci.....Bremerton
Redmond, Harold V, UD, Min.....Seattle	Riste, Clara E, LD, Sci.....Seattle
**Redpath, Harry S, 1st Law.....Seattle	Riste, Ida G, LD, LA.....Seattle
Redpath, Lindley R, LD, Bus.....Seattle	**Ritchie, Clarence E, Unc, Bus.....Centralia
Reed, Donald L, LD, Eng.....Centralia	Ritchie, Elisabeth L, LD, LA.....Salt Lake, U
Reed, Earl E, Spec.....Seattle	Ritter, John Edward, LD, For.....Republic
Reed, Helen Van Hlen, Unc, Sci.....Seattle	Ritz, Ruthleanor, LD, Sci.....Tacoma
Reed, Henry D, LD, Phar.....Halley, Ida	Rivera, Andres D, LD, ChE.....Philippines
Reed, Jennie M, Ed.....Tacoma	Robb, Alleda, LD, LA.....Seattle
Reed, Lucile, UD, FA.....Spokane	Robbins, Dorothy A, UD, Sci.....Bremerton
Reed, Russell Norman, Unc, Bus.....Seattle	Robbins, Frances R, UD, LA.....Spokane
Reeder, Ardis Harold, LD, Bus.....Tacoma	Roberts, Helen L, LD, LA.....Seattle
Reedy, Frances M, UD, Sci.....Tacoma	Roberts, James D, LD, For.....Tacoma
Reekie, Richard D, LD, Phar.....Seattle	Roberts, John T, UD, ChE.....Seattle
**Reese, James B, Bus.....Kirkland	Roberts, Katherine E, UD, LA.....Gooding, Ida
**Reese, Richard H, Bus.....Concrete	Roberts, Kenneth B, LD, Min
Reese, Thelma, Unc, Sci.....Kirkland	Roberts, Margaret, LD, LA.....Seattle
Reeves, Harold J, Unc, Bus.....Portland, Or	Roberts, Milnora, Grad.....Seattle
Regan, Frank, LD, For.....Boise, Ida	**Robertson, Colin W, LD, Bus.....Seattle
Regan, Willard P, LD, Bus.....Boise, Ida	Robertson, Howard P, LD, Sci.....Montesano
Reichert, Carlton G, LD, Bus.....Seattle	**Robertson, James Jr, Eng.....Seattle
Reid, Beatrice, LD, LA.....Seattle	Robinson, Charles H, LD, Bus.....Seattle
Reid, Crawford, LD, EE.....Seattle	Robinson, Frank D, LD, Bus.....Sumner
Reid, Elizabeth J, LD, LA.....Tacoma	Robinson, H Gerald, LD, EE.....Seattle
Reid, Florence E, LD, Bus.....Govan	Robinson, James W, LD, Eng.....Ireland
Reinelt, Herbert R, LD, LA.....Vallier	Robinson, Margaret, LD, Bus.....Centralia
Reiseroff, Lillian R, Unc, LA.....Worcester, Mass	Robinson, Morton, Unc.....Seattle
Reisig, Rhea, Unc, FA.....Seattle	Robinson, Rose, LD, LA.....Centralia
Reither, Bernard, LD, LA.....Seattle	Robinson, Ruth J, LD, Ed.....Seattle
Reif, Eugenia, LD, FA.....Seattle	Robinson, Ruth M, LD, LA.....Seattle
Remington, Arthur E, UD, EE.....Seattle	Robinson, Ted R, UD, Bus.....Everett
Remington, Cecil G, LD, Bus.....Selah	Robinson, K Una, UD, FA.....Edmonds
Remley, Miriam, UD, LA.....Dryden	Rochester, James M, LD, Bus.....Nooksack
Bernberg, Helen, Graa.....Seattle	Rockwell, John Jr, UD, Ed.....Castle Rock
Renro, Harold E, LD, EE.....Seattle	Rodman, Emmet A, LD, Bus.....Seattle
Reino, Beatrice, LD, LA.....Sedro Woolley	Roe, Arthur O, UD, ME.....Everett

Roe, F Hobson, UD, Bus.....Seattle
 **Roe, Marie John, LD, Bus.....Seattle
 Roegner, Frederick A, LD, Sci.....Seattle
 Roegner, Kenneth A, 2nd Law.....Seattle
 **Roemer, Albert J, LD, Eng.....Seattle
 Roehr, Margaret, LD, Bus.....Seattle
 Rogers, Agnes, LD, FA.....Seattle
 Rogers, Ellen K, UD, Bus.....Skagway, Aka
 Rogers, Henry E, UD, LA.....Seattle
 Rogers, Julia W, LD, FA.....Auburn
 Rogers, Lewis E, UD, LA.....Colville
 Rogers, Lois M, UD, LA, Niagara Falls, NY
 Rogers, Margaret G, UD, LA.....Auburn
 Rogge, George G, LD, For.....Seattle
 Rognon, Norma N, LD LA.....Seattle
 Rohowitz, Edythe, LD, Sci.....Seattle
 Rohrbacher, Mrs Chas A, Sp, FA.....Seattle
 Roll, Dorothy Bates, LD, LA.....Seattle
 Rollins, Paul B, LD, Sci.....Bremerton
 Romischer, William, LD, Min.....Seattle
 Roney, Ward William, LD, LA.....Duvall
 Rood, Sidney, LD, LA.....Seattle
 Roon, Edna E, LD, Sci.....Seattle
 Rooney, Joseph, Unc, Bus.....Seattle
 **Roop, Milford W, UD, Ed.....Seattle
 Roper, Marion Wesley, UD, Ed, Kettle Falls
 Roscoe, R Theodore, LD, Eng.....Edmonds
 Rosebaugh, Theo W, LD, EE.....Harrington
 Rosen, Elsie E, UD, Bus.....Monroe
 Rosen, Hilda F, LD, Sci.....Monroe
 Rosenberg, Anita R, LD, Bus.....Seattle
 Rosenberg, Hoda A, LD, FA.....Seattle
 Roska, William H, LD, EE.....Seattle
 Ross, Bruce Robert, LD, For.....Edmonds
 Ross, Doreen F, LD, Bus White Horse, Y T
 Ross, Edward Allen Jr, UD, EE.....Seattle
 Ross, George W, LD, LA.....Spokane
 Ross, Gordon B, UD, Bus.....Seattle
 Ross, Harry L, LD, EE.....Seattle
 Ross, Helen R, Unc, Ed.....Seattle
 Roth, Kenneth L, LD, Bus.....Seattle
 Roth, Robert I, LD, Sci.....Seattle
 Rothwell, Cyrella M, LD, Phar.....Seattle
 **Rothwell, Martha D, Nur.....Spokane
 Rourke, E Karl, LD, ChE.....Seattle
 Rowlands, Thomas M, Spec, Eng, Victoria, BC
 Rowntree, E Henry, LD, Bus.....Seattle
 Royal, Philip N, UD, ChE.....Olympia
 Royce, Roberta, LD, LA.....Olympia
 Roys, Ruby, Grad.....Seattle
 Royster, Helen, LD Ed.....Seattle
 Rubens, Gertrude N, LD, Phar.....Bellingham
 Rucker, Gladys, LD, Sci.....Seattle
 Rudberg, Clayton S, LD, Bus.....Spokane
 Rudolph, Evangeline, LD, Sci.....Seattle
 Ruel, James W, UD, Bus.....Sedro Woolley
 Ruffner, Edmund, Unc, FA.....Seattle
 Rumberger, George H, UD, Min.....Seattle
 Rummel, Bartlett, 1st Law.....Tacoma
 Runciman, George, LD, CE.....Caldwell, Ida
 Bunning, Gladys May, LD, Sci.....Tacoma
 Rupe, G Elizabeth, UD, Ed.....Seattle
 Rush, Elizabeth, LD, LA.....Spokane
 Russell, Alvia D, LD, EE.....Govan
 Russell, Edith, LD, FA.....Seattle
 Russell, Florence M, UD, LA.....Seattle
 Russell, Josephine V, LD, Bus.....Seattle
 Russell, Marvin, LD, Bus.....Walla Walla
 Russell, Ruth E, LD, LA.....Seattle
 Rust, Caramel Ruth, LD, Sci.....Yakima
 Rutherford, Trammell, LD, LA.....Seattle
 Rutter, Beatrice, UD LA.....Spokane
 Ryan, Frederick A, LD, Bus.....Seattle
 Ryan, Homer N, LD, LA.....Seattle
 Ryan, Marie Arline, LD, FA.....Seattle
 Ryan, Rose D, LD, LA.....Portland, Or
 Ryehard, Clayton H, UD, Bus.....Hoquiam
 Ryder, Maude, LD, Ed.....Auburn
 Ryer, Grant H, LD, ChE.....Denver, Colo
 Rygg, John C, LD, Phar.....Arlington

Ryanning, Lars E, Grad.....Tacoma

Sakuma, Yasuharu, LD, LA.....Japan
 Sallsbury, Frank S, Grad.....Renton
 Salladay, Ruth, UD, FA.....Seattle
 Salmikov, John S, Unc, Eng.....Seattle
 Salter, Esther A, LD, Sci.....Pt Blakely
 **Salkmann, George T, Bus.....Seattle
 Sammls, Lowden, LD, LA.....Seattle
 Samuelson, Byron A, Unc, Ed.....Pt Roberts
 Sanborn, Frederick, UD, Bus.....Oakland, Cal
 Sanchez, Isabelo G, LD, Sci.....Philippines
 Sandborg, Frederick R, LD, EE.....Seattle
 Sanders, Carrie, LD, LA.....Tukwila
 Sanders, Elva, LD, Bus.....Seattle
 Sanders, Floyd L, LD, Bus.....Spokane
 Sanders, John C, LD, EE.....Ephrata
 Sanders, Leslie, LD, EE.....Victoria, B C
 Sanders, Raymond G, LD, ChE.....Spokane
 Sanderson, Doris, LD, LA.....Wenatchee
 Sandvigen, Emma, LD, Bus.....Seattle
 Sandstrom, David H, LD, LA.....Seattle
 Sandusky, Oris, LD, LA.....Spokane
 Sandusky, Lawrence, LD, LA.....Spokane
 Sandvigen, Emma, LD, Bus.....Seattle
 Sanford, David J, LD, Bus.....Seattle
 Sanford, Edward A, LD, Min.....Seattle
 Sankala, Nell J, UD, Bus.....Ilwaco
 Sarff, Cora, LD, LA.....Seattle
 Sartoris, Madeline V, UD, Sci.....Enumclaw
 Sater, Gertrude P, Grad.....Seattle
 Sater, Irma, LD, Ed.....Seattle
 Sater, Julia, Grad.....Seattle
 Sather, Gertrude B, LD, FA.....Hoquiam
 Sather, Olene, UD, LA.....Hoquiam
 Sato, Teizo, LD, Bus.....Seattle
 Satoris, Fred P, LD, Bus.....Seattle
 Satow, Nobutoshi, UD, Bus.....Japan
 Sauers, Marion C, Ed.....Seattle
 Saunders, Eugene D, LD, LA.....Seattle
 Saunders, Maye, LD, Ed.....Wenatchee
 Saunders, Walton, LD, Bus.....Seattle
 **Savage, Anthony, 1st Law.....Seattle
 Savage, Joseph E, LD, Bus.....Seattle
 Savers, John Conley, UD, Bus.....Seattle
 Saverly, William Jr, LD, LA.....Seattle
 Sayles, Frank W, UD, Bus.....Seattle
 Sbedico, Mrs Ida J, Sp FA.....Seattle
 Scanlan, LeRoy, Unc, Bus.....Burlington
 Scanlan, LeRoy, Unc, Bus.....Burlington
 Schaak, Chas G, LD, EE.....Seattle
 Schadt, Raymond J, UD, ChE.....Seattle
 Schaefer, George, Unc, EE.....Seattle
 Schaefer, Isadore, LD, LA.....Seattle
 Schaefer, Leonard J, LD, Sci.....Seattle
 Schafer, Marie, LD, Bus.....Elma
 Scharf, Freeman C, LD, LA.....Seattle
 Schechtman, Lazar, LD, Phar.....Russia
 Schee, Martin E, Grad.....Seattle
 Schedl, Herbert A, LD Eng.....Anchorage, Ala
 Schel, Adolf G, UD, ChE.....Seattle
 Schell, Herbert, LD, Eng.....Anchorage, Ala
 Schermer, Jack M, LD, LA.....Seattle
 Scheuer, Frank J, Unc, CE.....Seattle
 Scheyer, Kenneth S, LD, CE.....Sedro Woolley
 Schippman, Herman A, UD, FA.....Seattle
 Schlageter, Frederick C, LD, MB.....Bremerton
 Schlageter, Harold G, LD, CE.....Bremerton
 Schlarb, Jack, LD, LA.....Tacoma
 Schmid, Byron C, UD, ChE.....Seattle
 Schmid, Calvin F, LD, LA.....Seattle
 **Schmidt, Clarence A, Bus.....Le Mars, Ia
 Schmidt, H Val, LD, Bus.....Seattle
 Schmidt, Lulu, LD, LA.....Edmonds
 Schmitt, Mildred Mary LD, LA.....Seattle
 Schmidt, Richard A, LD, Bus.....Wenatchee
 Schmidt, Ronald F, UD, Bus.....Seattle
 Schmidtmann, Edward H, LD, CE.....Auburn
 Schmitt, Margaret F, LD, LA.....Seattle

Schmitt, Tessie Margaret, LD, LA....Seattle
 Schneider, Casper A, LD, LA....Aberdeen
 Schneider George M, LD, EE...Rossland, BC
 Schneider, Margaret, LD, Sci....Tacoma
 Schnellhardt, Dorothy, LD, Sci....Seattle
 Schnitzlein, Anita, LD, Sci...Long Beach, Cal
 Schofield, Gwendolyn.....Seattle
 Schofield, Margaret, UD, LA....Seattle
 Schofield, Robert H, LD, LA....Seattle
 Scholl, Suzanne E, LD, Bus....Seattle
 Scholtes, M, Geraldine, UD, LA....Seattle
 Schooley, John M, LD, LA....Zillah
 Schram, Alberta M, LD, LA....Seattle
 Schreiber, Paul R, LD, LA....Colville
 Schrock, Doris N, UD, Sci....Okanogam
 Schroder, Blanche, UD, FA....Pendleton, Or
 **Schuknecht, Leeland H T....Min Seattle
 Schuknecht, Robert C, LD, ME....Seattle
 Schuknecht, Robert C, LD, LA....Seattle
 Schultze, William B, UD, For....Seattle
 Schulz, Gertrude A, UD, Sci....Seattle
 Schulz, Katherine L, LD, LA....Seattle
 Schumacher, Walter C, LD, LA....Shelton
 Schumer, Anna, LD, Bus....Seattle
 Schureman, Charles A, LD, Bus Saybrook, Ill
 Schwager, Helen Louise, LD, FA....Seattle
 Schwartz, Gene S, LD, LA....Burns, Or
 Scordan, Louise M, Law....Seattle
 Schwartz, Edward R, Unc....Tacoma
 Schwartz, Florence L, 3rd Law....Seattle
 Schwiesow, Will H, UD, For....Tacoma
 Scofield, Neil, LD, EE....Seattle
 Scott, Burton F, Grad.....Seattle
 Scott, Byron David, Unc, Law....Tacoma
 Scott, Elsie M, LD, Ed....Twisp
 Scott, Frank W, LD, Bus....Olympia
 Scott, James G, UD, OB....Seattle
 Scott, Lydia Louise, UD, LA....Seattle
 Scott, Marion S, LD, LA....Mukelteo
 Scott, Marjorie, LD, Sci....Roslyn
 Scott, Morris R, LD, Bus....Twisp
 Scott, Neil D, LD, Bus....Wenatchee
 Scott, Robert W, LD, Ed....Woodland
 Scott, Thomas E, LD, Bus....Seattle
 Scottton, Edwin B, UD, CE....Vancouver
 Scuck, Evelyn V, UD, FA....Everett
 Seaborn, Margaret, LD, FA....Seattle
 Seabury, Esther, LD, FA....Seattle
 Seagraves, Hal E, LD, ChE.Coeur d'Alene, Ida
 Sealls, Margaret C, LD, LA....Seattle
 Sealls, Rachel Joyce, UD, Ed....Seattle
 Seamons, Joe, LD, CE....Tacoma
 Sears, Esther E, LD, LA....Centralia
 Sears, Mildred L, LD, Phar....Centralia
 Seebree, Dorothy M, LD, Sci....Coldwell, Ida
 Secord, Isabel, LD, LA....Seattle
 Seddon, Stanley, 1st Law....Roslyn
 Seccamp, John F, LD, ME....Seattle
 Sealey, Horace M, Unc, EE....Kennewick
 Sealey, Mildred L, LD, FA....Seattle
 Sealey, Paul W, LD, Bus....Seattle
 Seely, Edwin C, LD, LA....Seattle
 Seelye, Helen L, LD, LA....Seattle
 Seelye, Ray Wm, LD, Min....Seattle
 Seelye, Walter Bale, UD, Sci....Seattle
 Selbert, Phillip J, LD, Eng....Seattle
 Seitzick, Ida, LD, LA....Seattle
 Selby, Harold K, UD, Bus....Seattle
 Selby, Howard P, LD, For....Pt Townsend
 Sellers, Ulrich R, LD, Bus....Seattle
 Sells, Anthony J, Grad.....Seattle
 Sells, John A, LD, ChE....Bellingham
 Selton, Nuben, LD, EE....Bellingham
 Setzer, Harry D, LD, Bus....Portland, Or
 Seitzer, Lawrence, LD, LA....Hillyard
 Seitzerm, Oscar, LD, Bus....Portland
 Selvidge, George W, Sp. Law....Seattle
 Serrano, Bartolome, LD, Sci...Philippines
 Servis, Estella, LD, Bus....Seattle
 Settem, Clara Olive, UD, LA....Astoria, Or

Setzer, George F, LD, ChE.....Daisy
 Sewell, Walter, LD, Bus....Butte, Mont
 Sexsmith, Hazel G, LD, LA....Spokane
 Shafer, Herbert, LD, Sci....Tacoma
 Shaffer, Audrey, G, LD, Bus....Waitsburg
 Shaffer, Wilma J, UD, LA....Waitsburg
 Shank, Charles J, LD, Sci....Seattle
 Shanks, Clyde W, LD, Bus....Seattle
 Shank, Jack O, UD, For....Aalton, Ill
 Shanks, Marcus N, UD, Sci....Seattle
 Shapiro, Lou, LD, Bus....Seattle
 Shattuck, Hazel I, LD, LA....Vancouver
 **Shaver, Merle T, Unc, Eng Bremerton
 Shaw, Anna Belle, UD, Sci....Seattle
 Shaw, Clayton B, LD, LA....Spokane
 Shaw, Gretchen A, LD, FA....Seattle
 Shaw, Margaret C, LD, Bus Great Falls Mont
 Shaw, H. Merrill, LD, Phar....Seattle
 Shaw, Mildred C, LD, Bus Great Falls Mont
 Shaw, Samuel E, LD, LA....Seattle
 Shawler, Grace, LD, LA....Seattle
 Shearer, Fred A, LD, EE....Centralia
 Sheeder, Lois Mal, LD, Bus....Seattle
 Sheldon, Dawson C, LD, EE....Tacoma
 Shellenberger, John A, LD, ChE....Seattle
 Shellum, Adelbert J, LD, ChE....Seattle
 Shepard, Aileen.....Winslow
 Shepard, Marjory, LD, LA....Seattle
 Shepard, Richard C, LD, Bus....Seattle
 Shepardson, Albert A, LD, Bus....Seattle
 Shephard, Percy N, LD, EE Victoria, B C
 Shera, Brian L, LA, Min....Tacoma
 Sheridan, Mary A, Unc, LA....Bend, Or
 Sheriff, Joseph M, LD, ME....Seattle
 Sherman, Leslie, Unc, Bus....Bverett
 Sherrill, Harold D, LD, ChE....Tacoma
 *Shlach, Mary E, Nur....Seattle
 Shidler, Edwin W, UD, LA....Seattle
 Shidler, Roger L, LD, LA....Seattle
 Shidler, Will LD, Ed....Seattle
 Shields, George W, LD, EE....Seattle
 Shigaki, M. George, LD, LA....Seattle
 Shillestad, Frank Jr, LD, Bus....Seattle
 Shillock, Harold E, LD, Bus....Seattle
 Shimizu, Frank, Unc, Bus....Seattle
 Shinn, Duane T, Unc, Law....Spokane
 Shlome, Roy Y, LD, EE....Seattle
 Shipman, Herman A, UD, FA....Seattle
 Shippey, Helen H, LD, LA....Saguache, Colo
 Shipton, Mildred J, LD, LA....Chelan
 Shipton, Vivian, LD, LA....Chelan
 Shirkey, Emily Frances, Grad. Norborne, Mo
 Shoemaker, Edna, Grad.....Gresham, Or
 Shoemaker, Harry E, UD, FA....Seattle
 Shollenberger, J. Wayne, LD, Bus....Seattle
 Shone, Bessie M, UD, Phar-South Bend
 Shorrock, Paul, LD, Bus....Seattle
 Short, Spencer D, LD, LA....Ellensburg
 Shotwell, Margaret, UD, LA....Seattle
 Shoudy, Doris, Unc, FA....Rockford, Ill
 Showell, Philip S, LD, Sci....Bryna Mawr
 Shuler, Beryl, Unc, Sci....Seattle
 Shumate, Helen, LD, LA....Seattle
 Shure, Sallo Lee, LD, Phar....Bellingham
 Shuttleworth, Lloyd D, LD, Bus....Seattle
 Siao, Yu-Ling, UD, Bus....China
 Siegrist, Herbert H, LD, Bus....Seattle
 Sielk, George J, UD, Bus....Spangle
 Sielk, Henry W, UD, Bus....Spangle
 Slevers, Harold E, LD, Bus....Everett
 Slevers, Roy, LD, Bus....Everett
 Sigmond, Arthur I, UD, Bus Philadelphia Pa
 Silliman, Marietta, LD, Bus....Seattle
 Sillman, Grace E, LD, Sci....Spokane
 Silseth, Margrette, LD, Sci....Tacoma
 Silver, Rose, LD, Ed....Seattle
 Silvermaster, Nathan G, Grad....Russia
 Silvers, Drew, Unc, LA....Tacoma
 Silverstone, Eugene, LD, Sci....Seattle
 Sim, Ida Grace, LD, Sci....Snobomish

REGISTER OF STUDENTS

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Simas, Frances M, UD, Ed.....Sprague
 Simcoe, Neva Lenore, LD, LA.....Pt Townsend
 Simcoe, Philip S, LD, For.....Pt Townsend
 Shammons, Dale, Unc, Bus.....Prosser
 Simon, Dorothy, UD, LA.....Portland, Or
 Simon, Rebecca H, Grad.....Butte, Mont
 *Simpson, Fred Howard, Eng.....England
 Simpson, Lewis L, LD, For.....Seattle
 Sims, Adelaide.....Seattle
 Sims, Mrs Corinne L, Unc, FA.....Seattle
 Sims, Norma J, UD, LA.....Seattle
 Simson, Jerome, UD, ME.....Seattle
 Simson, Louis, LD, Bus.....Seattle
 Sinclair Harold P, UD, Bus.....Yakima
 Sinclair, Helen M, LD, LA.....Seattle
 Sinclair, Robert Leslie, Unc, Bus.Snohomish
 Singley, W Norman.....Meadville, Pa
 Slater, Roland W, UD, ME.....Seattle
 Slater, Sara E, LD, LA.....Seattle
 Slasson, Howard A, UD, Min.....Allyn
 Sister, Mary Leonella, UD, Sci.....Seattle
 Sitjar, Guadalupe T, LD, Bus.....Seattle
 Siverts, Victorian, UD, Sci.....Seattle
 Skartvedt, Agnes, LD, FA.....La Center
 Skelsey, Edmund E, LD, Bus.....Shelton
 Skewis, Mary Alberta, LD, FA.....Tacoma
 Skibness, Alphonse J, UD, Bus.....Spokane
 Skidmore, Samuel, LD, Bus.....Tacoma
 Skinner, Elsey, UD, LA.....Seattle
 Skiptarey, Louis A, Spec.....Oroville
 Slade, Elizabeth M, LD, LA.....Husum
 Slane, Harold A, LD, LA.....Seattle
 Slater, Verla M, UD, LA.....Ferndale
 Slauson, Celeste M, Unc, Ed.....Seattle
 Slauson, Howard B, Grad.....Seattle
 Slauson, Margaret, LD, Sci.....Seattle
 Slayden, Philip Lee, UD, CE.....Stellacoom
 *Sloan, Roy H, Bus.....Seattle
 Slusher, Charlotte B, LD, LA.....Seattle
 Slusser, Bess Enid, LD, FA.....Seattle
 Small, Frank L Jr, UD, Sci.....Seattle
 Small, Mary Frances, UD, FA.....Seattle
 Smaulding, Owen, LD, Bus.....Seattle
 *Smith, Albert F, Bus.....Seattle
 Smith, Angie, Unc, Bus.....Seattle
 Smith, E Beryl, UD, LA.....Vancouver
 Smith, Charles J, LD, Bus.....Waterville
 Smith, Dorothea, LD, LA.....Seattle
 Smith, Dorothy C, LD, Bus.....Tacoma
 Smith, Doyle, LD, Bus.....Tacoma
 Smith, Eileen A, LD, FA.....Seattle
 Smith, George S, Grad.....Centralia
 Smith, Gertrude B, UD, Jour.....Seattle
 Smith, Greta M, Unc, LA.....Vancouver
 Smith, Harold A, LD, LA.....Seattle
 Smith, Herndon, UD, LA.....Seattle
 Smith, Janet Sarah, LD, Sci.....Auburn
 Smith, Jessie E, LD, Ed.....Seattle
 Smith, John H B, UD, For.....Seattle
 *Smith, Joseph B, Unc, LA.Twin Falls, Ida
 Smith, Marian A, LD, Sci.....Tacoma
 Smith, Ormond T, Bus.....Seattle
 Smith, Pearl, Grad.....Seattle
 Smith, Quentin S, LD, LA.....Puyallup
 Smith, Ralph L, LD, Sci.....Miller River
 Smith, Ralph Myron, UD, Bus.....Seattle
 Smith, Ralph Otis, LD, FA.....Centralia
 Smith, Ralph Rice, LD, LA.....Seattle
 Smith, Raymond C, LD, CE.....Merritt
 Smith, R Hall, LD, Bus.....Seattle
 Smith, Richard W, LD, Eng.....Ellisport
 Smith, Robert K, LD, LA.....Seattle
 Smith, Roy, LD, Eng.....Spokane
 Smith, R Atherton, Unc, Bus.Mtn Home, Id
 Smith, Ruth Norton, UD, FA.....Seattle
 Smith, Stanley L, LD, Bus.....Seattle
 Smith, Tremaine J, LD, LA.....Spokane
 Smith, Trueman T, UD, EE.....Seattle
 Vern, Grad.....Seattle
 Smith, Vernette T, UD, LA.....Hoquiam
 Smith, V Vernon, LD, FA.....Seattle

Smith, Vincent, LD, Bus.....Seattle
 Smith, Virgil, LD, Grad.....Seattle
 Smith, Wallace E, LD, Bus.....Seattle
 Smith, Walter A, LD, Bus.....Seattle
 Smith, Wayne C, LD, Bus.....Lynden
 Smyth, Harold, Unc, EE.....Seattle
 Smyth, Russell D, LD, LA.....Yakima
 Sneed, Marie Frances, UD, LA.....Seattle
 Snellenberg, Lewis, LD, Eng.....Seattle
 Snider, A Latta, Grad.....Alderwood Manor
 Snider, Floyd, LD, EE.....Seattle
 Snow, Gretchen, UD, Bus.....Blaine
 Snow, Loreen Louise, LD, LA.....Seattle
 Snyder, Elaine, Unc, Ed.....Seattle
 Snyder, Esther, LD, LA.....Tacoma
 Snyder, Hart, LD, LA.....Seattle
 Soden, Arch O, LD, Bus.....Seattle
 Soderback, Florence, LD, Ed.....Seattle
 Soderstrom, Harry T, LD, CE.....Spokane
 Softky, Albert M, LD, ME.....Auburn
 Soles, Geraldine, LD, FA.....Seattle
 Soller, Teleforo G, LD, Sci.....Philippines
 Solomon, Hyman O, Unc, Law.....Seattle
 Somerville, Robert, LD, Bus.....Centralia
 Sommer, Helen, LD, LA.....Seattle
 Sorber, Paul, LD, ChE.....Seattle
 Sorenson, S Amelia, UD, LA.....Ellensburg
 Sorenson, Andrew, Unc, Bus.....Ellensburg
 Sorenson, Gladys M, LD, FA.....Bellevue
 Sorenson, Harry D, UD, Ed.....Nooksack
 Soth, Tom, LD, LA.....Kennewick
 Soule, Kenneth E, LD, ME.....Seattle
 Southard, John H, UD, ChE.....Seattle
 Southwick, Charles U, LD, LA.....Chelan
 Southwick, Glen H, UD, Bus.....Chelan
 Southwick, Minnie, LD, Sci.....Chelan
 Sowle, Jack, LD, Min.....Seattle
 Spaeth, Esther A, LD, Sci. Ketchikan, Aka
 Sparling, George W, Fr, Eng.....Seattle
 Sparling, Margaret, LD, Bus.....Hoquiam
 Spaulding, Daniel W, LD, Bus.Ellensburg
 *Spaulding, David L, Unc, Law.....Seattle
 Spear, Mildred C, UD, LA.....Seattle
 Speir, Betty C, LD, Sci.....Seattle
 Spence, Everett M, LD, Phar.....Seattle
 Spencer, Frank C, UD, Bus.....Seattle
 Spencer, Ralph W, UD, CE.....Seattle
 Spencer, Wm Anson, Grad.....Seattle
 Sperling, Otto F, LD, Sci.....Spokane
 Sperry, Emery F, UD, Bus.....Yakima
 Spickard, Helen Florence, UD, Sci. Seattle
 Spieseke, Winnie, UD, LA.....Seattle
 Spiker, Robert Ray, LD, Bus.....Lewiston, Ida
 Sprague, Joan H, LD, FA.....Seattle
 Sprague, A Milton, LD, ChE.....Seattle
 *Spratlin, Allen, Unc, Law.....Seattle
 Spriesterbach, Alice, LD, FA.....Everett
 Springer, Hestell, LD, Sci.....Tacoma
 Springer, Irene A, UD, LA.....Olympia
 Spuhn, Fred W, LD, For.....Medford, Ore
 Squire, Sloane, LD, LA.....Seattle
 Stacy, Virginia, LD, FA.....Lewiston, Ida
 Stalberg, Doris, UD, Phar.....Everett
 *Stallard, Tolly K, UD, Bus.....Greenacres
 Stallings, Adeline M, UD, LA.....Seattle
 Stamm, Claus H, UD, Eng.Bonnars Ferry,Ida
 Stancilffe, Imogene, UD, LA.....Seattle
 Stancilffe, Joseph B, LD, LA.....Seattle
 Standard, Alta Virginia, LD, FA.....Seattle
 Standing, Frank, LD, Bus.....Tacoma
 Stanfield, Ralph B, LD, LA.....Seattle
 Stangland, Bess, UD, Jour.....Seattle
 *Stanley, Claude R, Bus.....Seattle
 Stanley, Emery R.....Seattle
 Stansbery, Douglas C, LD, Eng.....Seattle
 Stanton, Campton, LD, EE.....Seattle
 Stanton, Margaret, LD, LA.....Seattle
 Starin, Edward, LD, LA.....Seattle
 Stark, Eugene E, LD, LA.....Seattle
 St Arnold, Norma H, LD, FA.....Seattle
 *Starr, Alva G, UD, LA.....Waldport, Or

Starr, Beatrice E, 3d Law.....Seattle
 Staten, Francis, LD, Bus.....Seattle
 Staten, Mildred, LD, Bus.....Seattle
 Stedman, Lewis L, Unc, Law.....Seattle
 Stedman, Vera, LD, Sci.....Seattle
 Steele, Helen, LD, LA.....Seattle
 Steele, James H, LD, CE.....Renton
 Steele, Kathryn J, Unc, FA, Cedar Rapids, Ia
 Steele, Susie Frances, UD, Sci.....Seattle
 Steelman, Eleanor, UD, LA.....Seattle
 Steere, M Esther, LD, Sci.....Kallispell, Mt
 Stein, Ben L, LD, CE.....Russia
 Steindorf, Eric C, 1st Law.....Seattle
 Stelling, Herman J, Unc, Bus.....Fuyallup
 Stendal, Orville Leroy.....Sedro Woolley
 Siemens, Lydia J, UD, Ed.....Seattle
 Stenson, William F, LD, Sci.....Snohomish
 Stentz, Geraldine, LD, LA.....Seattle
 Stentz, W Waldo, LD, Bus.....Olympia
 Stephens, Inga A, LD, Sci.....Seattle
 Stephens, Loren E, LD, Bus.....Centralia
 Stephens, Mildred B, LD, LA.....Seattle
 Stephenson, J Ross, LD, Phar.....Centralia
 Sterling, Thomas B, LD, LA, Walla Walla
 Stern, Carolyn, LD, LA.....Seattle
 Stern, Fred R, UD, EE.....Seattle
 Stevens, Claude W, LD, Bus.....Seattle
 Stevens, Richard F, LD, EE.....Seattle
 Stevens, Robert R, Fr, Eng.....Seattle
 Stevenson, Robert J, LD, Bus.....Seattle
 Stewart, Chesterfield, LD, Min.....Seattle
 Stewart, Edgar Irving Jr, UD, Ed, Seattle
 Stewart, Glenn R, LD, Bus.....Ellensburg
 Stewart, Max D, LD, LA.....Seattle
 Stewart, Oliver, LD, EE.....Seattle
 Stewart, Philip H, LD, EE.....Prosser
 Stewart, Ralph B, UD, Sci.....Seattle
 St Germain, Garnette, LD, LA.....Seattle
 Stickney, Amy E, LD, LA.....Bothell
 **Stickney, Guy C, ME.....Bothell
 Stiles, Russell M, LD, Phar.....Seattle
 Stilson, Lillian, LD, FA.....Spokane
 Stirling, Thomas B, LD, LA.....Walla Walla
 St John, Bernice, LD, LA.....Chehalis
 **Stocking, Bernard A, Bus.....Seattle
 Stommer, Ida, UD, Sci.....Seattle
 Stone, Caleb S Jr, UD, Sci.....Seattle
 Stone, Edward T, LD, CE.....Vancouver
 Stone, Howard J, LD, Bus.....Tacoma
 Stone, Samuel Hollis, Sp, LA.....Seattle
 Stonehouse, Edgar I, LD, Bus.....Everson
 Stooddy, Helen Mary LD, Phar.....Seattle
 Storey, M Eugenia, UD, Ed.....Starbuck
 Storm, Mrs Charlotte, LD, FA.....Seattle
 Storm, Kathleen, LD, LA.....Seattle
 Storms, Walter R, UD, Min.....Camas
 Storrs, Richard Cunningham, LD, Eng, Seattle
 Stovel, Margaret A, LD, LA.....Seattle
 Stover, Merrill M, LD, EE.....Seattle
 Stover, Miriam C, LD, Ed.....Seattle
 Strachan, Gertrude, LD, FA.....Garfield
 Strand, Erling, LD, LA, Petersburg, Alas
 Strand, Robert, LD, Bus.....Seattle
 Strandberg, Herbert, LD, EE.....Seattle
 Strate, Johanna, Grad.....Seattle
 Straumford, Joe F, LD, Min.....Blaine
 Streator, Gertrude Inez, Grad.....Seattle
 Strickland, N R, LD, Sci, Middlesex, N C
 **Striker, William C, Jour.....Kelvin, N D
 Strite, Daniel D Jr, Sp, For, Bay City, Or
 Strizek, Paul, LD, Sci.....Seattle
 Strong, Arthur B, Unc, LA.....Seattle
 Strong, Flora M, Grad.....Bellevue
 Strong, Gladys D, LD, LA.....Seattle
 Stroud, Ruth, LD, LA.....Sheridan, Wyo
 Stroud, Warren L, LD, Bus, Sheridan, Wyo
 Stroud, Rollin C, LD, For.....Seattle
 **Strum, Elmer A, Eng.....Seattle
 **Stuart, Frank C, Bus.....Seattle
 Stuart, Margaretta, UD, Ed.....Ellensburg
 Stunkard, Isabel, LD, Sci.....Seattle

Sturgis, Alice E, LD, Ed.....Sturgis, Mich
 Styer, Cornelius W, UD, LA.....Seattle
 Sugimachi, Yaemitsu, LD, LA.....Japan
 Sullivan, Marie, LD, Bus.....Seattle
 Sullivan, John D, Grad.....Seattle
 Sullivan, John E, UD, Sci.....Seattle
 Sullivan, John K, LD, Phar.....Bixville
 Sullivan, Richard F, Grad.....Seattle
 Sulz, Albert, LD, Min.....Seattle
 **Summersett, Peter, Unc, Law.....Chehalis
 Summy, Archibald P, UD, Bus.....Seattle
 Sundquist, Leona M, Grad.....Mt Vernon
 Suomela, Arnie J, LD, Fish.....Ilwaco
 Sutter Carl Fain, Fr, Bus.....Seattle
 Sutton, Alice Dolores, LD, LA.....Seattle
 Sutton, Phoebe Jane, LD, Sci.....Seattle
 **Swofford, Henry K, Bus.....Seattle
 Swalle, George E, LD, Bus, National City, Cal
 Swain, Kenneth H, UD, Bus.....Seattle
 Swain, Olive, UD, Sci.....Tacoma
 Swalwell, William H, LD, For.....Seattle
 Swan, Eleanor J, Grad.....Seattle
 Swan, Helen, LD, LA.....Seattle
 Swanberg, Amy, LD, Bus.....Seattle
 Swanberg, Roy, LD, Min.....Seattle
 Swanberg, Ruby, LD, Ed.....Seattle
 Swanson, Charles, LD, Bus.....Seattle
 Swanson, Ruby F, UD, LA.....Troy, Mt
 Swanson, Ruth E, LD, LA.....Tacoma
 Swanson, Verne J, LD, EE.....Seattle
 Swasey, Harlette E, UD, LA.....Raymond
 Sweeney, Frank E, LD, Bus.....Seattle
 Sweet, Earl K, UD, Bus.....Seattle
 Sweet, Marie, LD, LA.....Seattle
 Sweet, Marlon L, LD, FA.....Okanogan
 Swegle, Walter H, UD, ME.....Renton
 Swenson, Elaine I, LD, FA.....Seattle
 Swertz, Victoriana.....Seattle
 Sweszy, Mildred, LD, LA.....Sumner
 Swift, Lester J, UD, Phar.....Hoquiam
 Swinehart, Olivia T, LD, FA.....Seattle
 Sykes, Iris Honor, LD, FA.....Tacoma
 **Szymowiak, E, For.....Milwaukee, Wis

Tachell, Maud, UD, FA.....Renton
 Taft, Alice L, UD, LA.....Seattle
 Taft, Herbert, Unc, LA.....Seattle
 Taft, John G, LD, Bus.....Seattle
 Taft, Maurine, LD, Sci.....Beach
 Taggart, George M, LD, Bus.....Seattle
 Tait, Harry A, LD, Eng.....Seattle
 **Talbot, Everett C, Bus.....Lowell
 Talbot, Katherine, LD, LA.....Seattle
 Talbot, Mira, LD, LA.....Seattle
 Talbott, Mary M, LD, LA.....Seattle
 Talmadge, Walter H, LD, ME.....Seattle
 Tameals, Florencia, UD, For.....Philippines
 Tanguay, Emmett, LD, Bus.....Seattle
 Tanner, Benjamin F, LD, Bus.....Seattle
 Tanner, Mary C, LD, Ed.....Seattle
 Tanzer, Wm Max, Unc, Eng.....Seattle
 Tappe, Kenneth H, LD, For.....Bremerton
 Tappe, Lee, LD, Phar.....Seattle
 Tarter, Clyde S, UD, Sci.....Seattle
 Tashima, Hideo, LD, LA, Los Angeles, Cal
 Tatum, Fernley A, Grad.....Tacoma
 Taylor, Bertrand, UD, Jour.....Sumner
 Taylor, Collin A, UD, EE.....Seattle
 Taylor, E Henrietta, UD LA.....Tacoma
 Taylor, Irene, LD, Bus.....Seattle
 Taylor, Martha A, Unc, LA.....Duluth, Minn
 Taylor, Nancy E, LD, LA.....Seattle
 Taylor, Ray F, LD, For, Bloomfield, N J
 Taylor, J E Rex, UD, Phar.....Seattle
 Taylor, Robert, LD, Bus.....Seattle
 Taylor, Wm D G, UD, FA.....Tacoma
 **Taylor, Wm S Jr, UD For, Darrington
 Taylor, W Seth, Unc, Bus.....Seattle

Tee-Garden, Chester U, UD, Jour...Seattle
 Tegland, Nellie May, UD, Ed.....Tacoma
 Telg, Clifford L, LD, CE.....Seattle
 Telg, Ralph, LD, EE.....Seattle
 Tejada, Emiliano A, 1st Law...Philippines
 Tendick, Lloyd B, Grad.....Fargo, N D
 Terry, Margaret L, UD, LA, Louisville, Ky
 Terry, Miriam, LD, FA.....Seattle
 **Tentsch, John Milton, LD, Bus.....Seattle
 Tevis, James, UD, Bus.....Seattle
 Thayer, Jeannette, LD, LA.....Everett
 Theriault, Albert, LD, Bus.....Twisp
 Thielman, Cathleen F, LD, Sci.....Seattle
 Thiry, Paul, LD, Sci.....Seattle
 Thode, Elizabeth, LD, LA.....Boise, Ida
 Thomas, Charlotte, LD, FA, Denver, Colo
 Thomas, Dwight, LD, Bus.....Seattle
 Thomas, Frank E, LD, LA.....Ellensburg
 Thomas, Irene, UD, LA.....Bellingham
 Thomas, Janice, LD, LA.....Seattle
 Thomas, Lee B, UD, Bus.....Summer
 Thomas, Margaret C, LD, Sci, Bellingham
 Thomas, Margaret E, UD, Sci.....Seattle
 Thomas, Roscoe G.....Seattle
 Thomas, Vera, LD, Ed.....Seattle
 Thome, Joseph, Unc, Law.....Granger
 Thome, Matthew W, LD, LA.....Granger
 Thomen, Ella, Unc, Ed, Junction City, Kans
 Thompson, Abbott L, LD, Eng.....Seattle
 Thompson, Adelle, LD, Sci.....Enumclaw
 Thompson, Aletha, UD, LA.....Seattle
 Thompson, Alfred, LD, LA.....Raymond
 Thompson, Allen E, LD, For.....Seattle
 Thompson, Aurora, LD, Sci.....Seattle
 Thompson, Browder, LD, EE.....Seattle
 Thompson, Ethel, UD, LA.....Everett
 Thompson, Wm Hale, Unc, Bus, Centralia
 Thompson, Harold Albert, LD, Sci, Seattle
 Thompson, F Helen, Unc, FA.....Seattle
 Thompson, Helen, LD, Sci.....Seattle
 Thompson, Helen M, LD, LA, Pendleton, Or
 Thompson, Irene, LD, LA.....Everett
 Thompson, Jane E, UD, LA.....Tacoma
 Thompson, Lols D, LD, LA.....Seattle
 Thompson, Marguerite E, Unc, LA, Seattle
 Thompson, Nathan P, LD, Bus.....Everett
 Thompson, Suzanne, LD, FA.....Seattle
 Thompson, Thelma L, UD, LA.....Seattle
 Thompson, William Hale Unc, Bus, Centralia
 Thomsen, Esther, LD, Bus.....Sedro Woolley
 Thomson, Ernest D, LD, LA.....Seattle
 Thomson, Mamie L, LD, Bus.....Wilbur
 Thorburn, John Edwin, LD, Min.....Seattle
 Toreson, Wallace, UD, ChE.....Seattle
 Thorgrimson, Mrs Myrtle R, LD, LA, Seattle
 Thornton, Ross C B, LD, Sci.....Seattle
 Thorp, Irene Doris, LD, LA.....Seattle
 Thorpe, Clarence S, UD, ME.....Seattle
 Thurston, James, UD, Bus.....Seattle
 Thwing, Clayton F, LD, Bus.....Puyallup
 Thwing, S Prentiss, UD, Bus.....Seattle
 Tibbitts, Erva L, LD, Sci.....Cashmere
 Tidmarsh, Patrick M, UD, LA.....Seattle
 Tiffany, Clara L, Lib.....Seattle
 Tift, Claire C, LD, EE.....Friday Harbor
 Tilbury, Percy W, LD, Bus.....Nooksack
 Tiller Arnt, LD, LA.....Seattle
 Tilton K Elwood, LD, ChE.....Seattle
 Tilton, Warren G, LD, EE.....Seattle
 **Tinch, Edwin A, FA.....Seattle
 Tinkcom, Lucile, LD, FA.....Seattle
 Tinker, Dorothy J, LD, LA.....Tacoma
 Tinsling, Norman Jay, LD, Eng.....Seattle
 Tobey, Lono W, LD, Bus.....Elma
 Todd, Daphne, UD, LA.....Tacoma
 Tolsen, Paul Jacob, LD, Bus.....Seattle
 Tomas, Nicenor, UD, Bus.....Philippines
 Tomlinaga, Sakaye M, Unc, LA.....Factoria
 Tomlinson, Margaret, Grad,Seattle

Tompkins, Chester, LD, Bus.....Kirkland
 Toner, Geo M, LD, Bus.....Sunnyside
 Toner, Lawrence E, UD, Bus.....Sunnyside
 Tonkin, Wesley, LD, EE.....Benton
 Toohill, Frank E, Unc, Law.....Seattle
 Torrance, Roscoe C, UD, Bus.....Spokane
 Totten, Morrell P, 1st Law.....Seattle
 **Tourtellot, Philip D, Sp, CE.....Seattle
 Tourtellotte, Ralph N, LD, Eng.....Seattle
 Towsley, Elmer H, Unc, Phar.....Seattle
 Tower, Orul M, LD, Bus.....Centralia
 Town, Frances A, Grad.....Tacoma
 **Towne, Arthur H, UD, LA.....Carroll
 **Townsend, Arthur C, Sp, Bus.....Seattle
 Townsend, Howard G, LD, Bus.....Seattle
 **Towsley, Glen A, Bus.....Seattle
 Tozier, Payson V, LD, CE.....Bangor, Me
 Trandum, Walter, LD, Bus.....Seattle
 Travis, Beverly, UD, EE.....Pinehurst
 Troth, Dennis C, Grad.....Seattle
 Trotman, Frank E, LD, Sci.....Woodinville
 Troitzky, Semen, Unc, EE.....Seattle
 Trow, A Palmer, Grad.....Seattle
 Troy, Harold P, LD, Bus.....Olympia
 Troy, Mary M, LD, LA.....Olympia
 Trumbull, John T, LD, LA.....Pt Angeles
 Trumbull, Jonathan, LD, LA.....Seattle
 Trumbull, Robert G Jr, LD, LA.....Seattle
 Tschudin, Ethel, Unc, Phar.....Napavine
 Tsol, Naal Shing, UD, Bus.....China
 **Tubbs, Ray V, Sci.....Adrian, Mich
 Tuck, Joseph, UD, Bus.....China
 Tucker, Alice N, UD, FA.....Seattle
 Tucker, Ellen, LD, Bus.....South Tacoma
 Tucker, Mrs Ellen, LD, Sci, Richmond Beach
 Tucker, Maryna A, LD, LA.....Toppenish
 Tucker, A Nesbit, LD, MB.....Seattle
 Tucker, Wilmon S, LD, LA.....Seattle
 Tudor, Guy M, UD, EE.....Seattle
 Tupas Ambrocio B, LD, Min.....Philippines
 Tupper, Cecil Clarence, LD, Bus.....Spokane
 Turinsky, Angeline, LD, LA, Sandpoint, Ida
 Turnaciff, Mary L, UD, Phar.....Seattle
 Turnblad, Harold, UD, Jour.....Seattle
 Turner, Arthur, LD, EE.....Seattle
 Turner, Cecelia, LD, LA.....Everett
 Turner, Gals S, LD, Bus.....Mt Vernon
 Turner, George V, LD, Bus.....Mt Vernon
 Turner, Lucile Marie, UD, LA.....Seattle
 Turner, Marston M, UD, Bus.....Seattle
 Turner, Mary, LD, LA.....Woodinville
 Turner, C Maynard, UD, EE.....Everett
 Turner, Theodore S, 1st Law.....Seattle
 Turner, Wendell W, UD, Bus.....Seattle
 Turtle, M Alice, LD, FA.....Spokane
 Turtle, Hazel Jane, UD, FA.....Spokane
 Tusler, Chas H, UD, CE.....Wilbur
 Tuttle, Marian E, UD, Ed.....Tacoma
 Tuxworth, L C, LD, EE.....Haslam, Texas
 Tweed Earl A, UD, Bus.....Seattle
 Tweed, Mildred, UD, FA.....Seattle
 Twoly, Paul F, Spec.....Seattle
 **Twoly, Paul F, Eng.....Seattle
 Tyler, Chas P, LD, LA.....Olympia
 Tyson, Vivian M, LD, LA.....Seattle

Ubungen, Sabas, LD, Sci.....Philippines
 Uddenberg, Alice, UD, Bus.....Gig Harbor
 Uhden, Esther, LD, LA.....Seattle
 Uhland, Annette, LD, LA.....Seattle
 Uhlman, Martha M, LD, LA.....Centralia
 Uhlmann, W Paul, LD, LA.....Centralia
 Uhrich, Helen Ball, Unc, LA.....Seattle
 Umbrite, Samuel P, LD, Phar, Richmond B'ch
 **Underhill, Walter Morton, LA.....Seattle
 Underwood, Hugh C, UD, EE.....Seattle
 Underwood, Robert C, UD, ChE.....Seattle
 Ungersma, Bernadine, UD, LA.....Seattle
 Uphus, Evan, UD, For.....Seattle

Upton, Charles M, LD, LA.....	Seattle
Upton, Marietta, UD, Jour.....	Seattle
Urbaneck, Eugene R, UD, EE.....	Des Moines
Utley, Willa P, LD, LA.....	Seattle
Uyewasa, K.....	Japan
Valencin, Victoria, LD, Phar.....	Roalyn
Valentine, Albert L Jr, UD, Bus.....	Seattle
**Valentine, Haddon P, LD, EE.....	Tacoma
Valmonte, Leonardo, Unc, ChE, Philippines	
**Van Arsdol, M D, Unc, Eng., Clarkston	
Van Buskirk, Adelbert, LD, Sci., Edmonds	
Van Devanter, Aaron, LD, CE.....	Burton
Van Duzen, Bess G, UD, Sci.....	Tacoma
Van Duzee, Jeannette E, UD, LA.....	St Paul
Van Eaton, Harold, LD, ME.....	Olympia
Van Gilder, F M, LD, LA.....	St Helens, Or
Van Orsdall, Otis Pearl, LD, LA.....	Seattle
Van Tilborg, Lawrence D, LD, Bus.....	Seattle
Van Tilborg, Mary, LD, LA.....	Seattle
Van Vleet, Cecil Spicer, Grad.....	Camas
Van Vliet, Carolyn, LD, LA.....	Yakima
Van Voris, Cecil S, LD, Bus.....	Seattle
Van Voris, William S, Unc, Law.....	Tacoma
Van Wie, Florence, LD, Phar.....	Seattle
Van Winkle, Barak, LD, LA.....	Puyallup
Vance, Mrs Rose S, Grad.....	Eugene, Or
Vandercook, Jeannette C, UD, Bus.....	Seattle
Vannoy, Louise, UD, Ed., Philippines, Mont	
Velitch, Albert H, LD, CE.....	Washington, DC
Velten, Alice K, LD, Sci.....	Pt Orchard
Verd, Laura M, LD, Bus.....	Seattle
Verd, Wesley E, LD, LA.....	Seattle
Versteeg, Evelyn A, LD, FA.....	Portland, Or
Vestal, Webley, LD, Bus.....	Seattle
Vetter, George B, Grad.....	Machias
Vick, Josephine, LD, Bus.....	Seattle
Vickers, Mildred L, UD, FA.....	Seattle
Victor, Frank J Jr, Unc, Bus.....	Seattle
Vierbus, Alex M, Unc, Law.....	Seattle
Villages, Andres, LD, Eng.....	Philippines
Vincent, Chester, LD, Bus.....	Seattle
Vincent, Russell, LD, Eng.....	Seattle
Vining, Genevieve V, LD, LA.....	Seattle
Vining, Orrin, 1st Law.....	Seattle
Vinton, Harriet E, LD, FA.....	Seattle
Virgil, La Motte, LD, LA.....	Seattle
Virtue, Norma, LD, LA.....	Missoula, Mont
Voelker, Claude B, LD, Bus.....	Spokane
Vogel, Catherine, UD, LA.....	Tacoma
Von Babo, Max Arthur, LD, Eng.....	Seattle
Von Erickson, Lyle G, UD, LA.....	Seattle
von Pressentin, Alice, LD, LA.....	Marblemount
von Pressentin, Dorothea, UD, Ed.....	Seattle
Von Pressentin, Laura, LD, FA.....	Seattle
von Pressentin, Ruth, LD, Bus.....	Marblemount
Voorhees, Melvin, Unc, LA.....	Seattle
Voorhees, Sol W, LD, Bus.....	Yakima
Voris, Florence, LD, Sci.....	Spokane
Waage, Robert K, LD, Bus.....	Silverdale
Weachter, Hazel, LD, FA.....	Seattle
Weafer, Barbara, LD, Ed.....	Marysville
Wagner, Lawrence J, LD, Bus.....	Stanwood
Wahl, Leone M, Unc, LA.....	Seattle
Wahlgren, Beatrice, LD, LA.....	Tacoma
Wahlstrom, Nelson A, LD, Bus.....	Seattle
Wainwright Ernest George, Spec.....	Seattle
Wakefield, Carol, UD, LA.....	Anacortes
Wakefield, Claude, LD, LA.....	Tacoma
Wakelee, Eve E, UD, LA.....	Ellensburg
Walby, V Eugene, LD, Eng.....	Seattle
Waldo, Cornelius T, LD, LA.....	Pasadena
Wales, Helen, LD, LA.....	Seattle
Walker, Chas W, LD, ME.....	Seattle
Walker, Donald B, LD, Bus.....	Seattle
Walker, E K, LD, Sci.....	Hermosa Beach, Cal
Walker, Evelyn, LD, LA.....	Seattle
Walker, Gile H, LD, For.....	Tacoma
Walker, James C E, LD, For.....	N Westminster
Walker, F D Lanier, LD, LA.....	Bremerton
Walker, Myrell, UD, EE.....	Seattle
Walker, Nina Ruth, UD, Bus.....	Seattle
Walker, Ona, UD, Bus.....	Seattle
Walker, Raymond, LD, ME.....	Seattle
Walker, Richard D, LD, EE.....	Seattle
Walker, Richard R, LD, CE.....	Seattle
Walker, Roger A, UD, EE.....	Tacoma
Walker, Ronald P, LD, Bus.....	Seattle
Walker, William B, LD, LA.....	Seattle
Wallace, Allan R, UD, Bus.....	Seattle
Wallace, Lora M, LD, LA.....	Spokane
Waller, Vera, LD, Sci.....	Seattle
Wallgren, Lloyd, LD, EE.....	Everett
Walling, Dow, LD, LA.....	Bellingham
Wallin, Beulah, UD, LA.....	Seattle
**Walsh, William R, Bus.....	Seattle
Walters, Chalmer G, LD, LA.....	Everett
Waltersdorff, Frances, LD, FA.....	Seattle
Walton, Genevieve, LD, FA.....	Everett
Waltz, Harold D, LD, Sci.....	Seattle
Wang, Fu-Chow, Unc, LA.....	China
Wang, Jen-Ling, Unc, LA.....	China
*Wann, Arva W, LD, Bus.....	Walla Walla
Wannamaker, Joyce K, LD, LA.....	Medical Lake
Waples, Mildred M, LD, Sci.....	Lynden
Ward, Alfred H, LD, Sci.....	Vashon
**Ward, Cecil Miner, UD, ME.....	Seattle
Ward, George F, LD, LA.....	Seattle
Ward, Harold J, Unc, Law.....	Seattle
Ward, Marguerite M, LD, Bus.....	Seattle
Ward, Merrill H, LD, Sci.....	Seattle
Ward, Victor, UD, Bus.....	Sauk
Warde, Lawrence A, LD, Eng.....	Seattle
Warde, Walter H, LD, ME.....	Seattle
Ware, Janet, LD, Ed.....	Kirkland
Warford, Glenn O, LD, Bus.....	Hoquiam
Warne, Ada M, UD, LA.....	Seattle
Warne, Alice M, UD, Sci.....	Seattle
Warner, Marylois, LD, Ed.....	Seattle
Warner, May, Unc, FA.....	Seattle
Warren, Cecil C, LD, Eng.....	Seattle
Warren, John E, LD, Min.....	Bremerton
Warrick, Herbert H, LD, EE.....	Bellingham
Warshal, Adolph, UD, Phar.....	Seattle
Wascher, Spriggs, LD, For.....	Seattle
Wasem, Weldon B, LD, Bus.....	Clarkston
**Washam, Fred F, Bus.....	Seattle
Washburn, Charlotte, LD, LA.....	Seattle
Washington, Lillian M, LD, FA.....	Seattle
Wasson, Alfred L, LD, Bus.....	Seattle
Watanabe, Yukio, Unc, Bus.....	Seattle
Watkins, George F, LD, Ed.....	Alderton
Watkins, Inez, UD, Bus.....	Hoquiam
Watkins, Lois A, LD, FA.....	Buffalo, Wyo
Watne, Edwin M, LD, ME.....	Seattle
Watson, Dorothy T, LD, LA.....	Seattle
Watson, Gwen Allen, LD, Bus.....	Weiser, Ida
Watson, Harold H, UD, EE.....	Seattle
Watson, John P, Unc, EE.....	Seattle
Watson, Mrs. Mary, Nur.....	Seattle
Watt, Elsie, LD, Bus.....	Seattle
Watt, J Graham, UD, ME.....	Seattle
Watt, George S, Unc, Bus.....	Seattle
Watt, Harold B, UD, Bus.....	Yakima
**Watt, James W, Phar.....	Centralia
**Watters, Wayne H, Bus.....	Seattle
Watts, Archie, LD, LA.....	Billings, Mont
Watts, Carl W, Sp, For.....	Seattle
Wayland, Elisabeth, Unc, FA.....	Seattle
Weage, Avery D, UD, Lib.....	Seattle
Weage, Mary DeElla, UD, Lib.....	Seattle
Weage, Ruth W, LD, Ed.....	Seattle
Weatherly, Clayton, LD, Sci.....	Seattle
Weaver, Donald K, LD, LA.....	Seattle
Weaver, F Howard, LD, LA.....	Tacoma
Weaver, Stanley R, LD, Bus.....	Elkhart, Ind

Weeks, Mary Louise, UD, FA.....	Seattle
Weeks, Patricia, Unc Bus.....	Seattle
Wegner, Johanna, LD, Bus.....	Seattle
Weigel, Chas M, LD, Bus.....	Yakima
Weikel, Elizabeth C, UD, LA.....	Yakima
**Weingarten, Harry, Bus.....	Seattle
Weinstein, Harry H, LD, Bus.....	Portland, Or
Weinstein, Sylvia, Unc, LA.....	Portland, Or
Weir, Gladys, UD, LA.....	Bellingham
Weir, John M, LD, EE.....	Tacoma
Weiser, John H, LD, ChE.....	Bellingham
Weise, Mildred, Unc, FA.....	Seattle
Weissenborn, Howard, UD, Bus.....	Seattle
Weid, Alice C, LD, LA.....	Rolling Bay
Wells, Dorothy B, LD, LA.....	Mt Vernon
Welsh, Gertrude K, UD, LA.....	Aberdeen
Welsh, Helen E, LD, Lib.....	Raymond
Welsh, Rachael A, LD, Phar N Westminster BC	
Welsh, William J, LD, EE.....	Tacoma
Welts, Edith B, LD, LA.....	Mt Vernon
Welts, Richard, UD, LA.....	Mt Vernon
Werba, Peter C, Unc, Phar.....	Seattle
Werby, Helena J, Grad.....	Seattle
Werner, Oscar B, UD, Bus.....	Litchfield Minn
West, Anetta, LD, Ed.....	Seattle
West, Beth, UD, Ed.....	Sumas
West, Cecil B, UD, Sci.....	Seattle
West, Constance M, UD, Sci.....	Seattle
West, Earle D, Grad.....	Seattle
West, Gertrude.....	Seattle
West, Marie, Unc, FA.....	Wenatchee
Westberg, Alfred J, LD, LA.....	Seattle
Westberg, Ivar S, Grad, Ed.....	Tacoma
Westerman, Claire W, Unc, Bus.....	Seattle
Westland, Alfred J, LD, LA.....	Everett
Westlund, Elmer B, LD, Bus.....	Bellingham
Westover, William T, LD, Eng.....	Portage
Westrom, Fred N, Unc, Bus.....	Everett
Wetherby, Aurabelle, LD, LA.....	Tacoma
Wetherby, Harold J, LD, LA.....	Tacoma
Weymouth, Allen, LD, Min.....	Seattle
Weythman, Ruth, UD, Sci.....	Monitor
Whaley, Frances C, UD, Bus.....	Chelan
Wheaton, Alma Jane, UD, Bus.....	So Bend
Wheaton, Willard J, LD, LA	Lewistown Mont
Wheeler, Brice, Unc, Bus.....	Colfax
Wheeler, Beulah O, LD, Bus.....	Seattle
Wheeler, Edward B, LD, ME.....	Seattle
**Wheeler, Marshall E, Bus.....	Seattle
Wheeler, Robert F, LD, LA.....	Montesano
**Wheelock, Ernest E, Law.....	Seattle
Wheelon, Burton J, 1st Law.....	Seattle
Whipple, Chas. R, LD, For.....	
Whitacre, Paul, UD, Bus.....	Seattle
White, Dorothy J, LD, Sci.....	Seattle
White, Dykeman, LD, Bus.....	Seattle
White, Elmer J, UD, ME.....	Seattle
White, Ernest C, Unc, Eng.....	Mt Vernon
White, Eva May, LD, LA.....	Seattle
White, Frances, UD, LA.....	Yakima
White, Frances C, UD, LA.....	Seattle
White, Helen G, LD, LA.....	Seattle
White, Helen K.....	
White, M. Lois, LD, FA.....	Yakima
White, Lester Archibald, LD, Sci.....	Seattle
White, Louise H, Unc, Sci	Snoqualmie Falls
White, Lydia A, LD, LA.....	Seattle
White, Marie, LD, LA.....	Seattle
White, Marjorie, Grad.....	Seattle
White, Myrtle F, LD, Sci.....	Seattle
**White, Ross S, LD, Bus.....	Seattle
Whitelaw, Hugh, UD, Bus.....	Seattle
Whiteley, Ernest D, LD, Phar.....	Seattle
Whitesides, Norma R, LD, FA.....	Seattle
Whitman, Mildred V, LD, LA.....	Olympia
Whitman, Daniel S, LD, LA.....	Burton
Whitmore, Ernest R, LD, Bus.....	Buckley
Whitner, A George, LD, Bus.....	Seattle
Whitney, Albert J, UD, Jour.....	Yakima
Whittier, Lyman K, LD, Bus.....	Seattle
**Whittle, William B, Bus.....	Seattle
Wiborg, Hazel E, LD, LA.....	Seattle
**Wick, Guy M, LD, Bus.....	Arlington
**Wick, Sanford A, UD, Bus.....	Arlington
Wicker, Gertrude B, LD, Sci.....	Sedro-Woolley
Wickersham, Helen, LD, FA.....	Seattle
Widrig, Thomas M, LD, EE.....	Seattle
Wieden, Hazel H, UD, Bus.....	Seattle
Wieder, Irving I, LD, Sci.....	Portland, Or
Wiel, Kurt, LD, For.....	Seattle
Wienir, Israel T, LD, LA.....	Seattle
Wienand, O Marcus, UD, LA.....	Seattle
Wilcox, Guy M, Grad, Bus.....	Seattle
Wilcox, Milo Fay, UD, Bus.....	Seattle
Wilder, Hoyt G, LA.....	Granite Falls
Wilder, James A, LD, ME.....	Blaine
**Wildt, Edward, Eng.....	
Wiley, Alexander C, 2d Law	Kalispell Mont
Wiley, Lois, UD, FA.....	Seattle
Wiley, W. W., LD, CE.....	Seattle
Wilkes, Maxine, UD, Sci.....	Seattle
Wilkins, Emilton L, LD, Bus.....	Seattle
Wilkinson, Jessie, UD, Bus.....	Sedro-Woolley
Willard, Dorothy E, UD, LA.....	Seattle
Willard, Dudley W, Grad.....	Kent
Willcox, Elizabeth C, LD, LA.....	Spokane
Williams, Berwyn E, LD, Bus.....	Chinook
Williams, Caroline, LD, LA.....	Centralia
Williams, David J, Unc, Law.....	Tyler
Williams, Edward W, LD, Bus.....	Seattle
Williams, Evelyn, LD, LA.....	Seattle
Williams, Frances E, LD, FA.....	Yakima
Williams, Geo. Wallace, LD, Bus.....	Seattle
Williams, Harold L, LD, Sci.....	Seattle
Williams, Helen C, LD, LA.....	Seattle
Williams, Hugh P, LD, EE.....	Seattle
Williams, James J, LD, EE.....	Seattle
Williams, Jessie Evelyn, LD, Ed.....	Seattle
**Williams, Kenneth G, Bus.....	Spokane
Williams, Marjorie E, UD, Ed.....	Wilbur
Williams, Mrs. Mary Louise.....	
Williams, Ronald C, LD, Bus.....	Sprague
Williams, Ruth J, Unc, LA.....	Kirkland
Williams, Thomas A, 1st Law.....	
**Williams, Wm C, Unc, Law.....	Seattle
Williams, William O, UD, Bus.....	Seattle
Williamson, Estey J, LD, Bus.....	Stella
Williamson, Reba, LD, Sci	Graybull, Wyo.
**Williamson, Rupert W, Law.....	Filler, Ida
Willoughby, Alice Beryl, Unc, Sci	Spokane
Willoughby, Elizabeth, LD, Sci	Grandview
Wills, Carol, Unc, LA.....	Wills, Wis
Wills, Henry V, LD, Phar.....	Friday Harbor
Wilms, Robert G, LD, Bus.....	Seattle
Wilson, Abe, LD, Bus.....	Everett
Wilson, Albert W, LD, LA.....	Seattle
Wilson, Burdette G, LD, Bus.....	Newberg, Or
Wilson, George D, UD, For.....	Aberdeen
Wilson, Edwin W, LD, EE.....	Olympia
Wilson, Elizabeth, Unc, LA.....	Seattle
Wilson, Emily T, LD, FA.....	Tacoma
Wilson, Emma J, UD, LA.....	Seattle
Wilson, Faye A, UD, Ed.....	Bellingham
Wilson, Florence B, Grad.....	Seattle
Wilson, Glen Evans, 2d Law.....	Seattle
Wilson, Grace, LD, LA.....	Seattle
Wilson, Howard W, LD, ChE	Portland Or
Wilson, T Hugh, LD, For.....	Seattle
Wilson, Irma, LD, Ed.....	Seattle
Wilson, James V, UD, EE.....	Tacoma
Wilson, John G, UD, Bus.....	Seattle
Wilson, Lena E, Grad, Sci.....	Seattle
Wilson, Lucile H, LD, Sci.....	Hoquiam
Wilson, Mary, LD, LA.....	Seattle
Wilson, Thelma, LD, LA.....	Seattle
Wilson, Paul E, UD, Sci.....	Spokane
Wilson, Viola, LD, LA.....	Kent
Wilson, Virginia E, LD, LA.....	Seattle
Wilson, William Gray, UD, Sci.....	Spokane
Winchell, A Vincent, LD, LA.....	Centralia

Winchell, A. Vincent, LD, LA.....	Centralia
Windhusen, Anne E, UD, Ed.....	Medical Lk
Winn, Burdett A, UD, Min.....	Seattle
Winnighoff, Miss F, UD, Sci Phillipsburg M	
Winston, J Carey, LD, Bus.....	Seattle
Winter, Bryan, LD, Bus.....	Everett
Winter, Evelyn M, LD, LA.....	Portland, Or
Winter, Katherine M, LD, LA.....	Los Angeles
Winternote, Dorothy, LD, FA.....	Tacoma
Winwood, Ralph F, UD, Bus.....	Butte, Mont
Wirt, Marguerite O, LD, LA.....	Yakima
Wirt, William H, UD, For.....	Yakima
Wise, Joseph W, LD, Bus.....	Vancouver
Wise, Leslie V, LD, Bus.....	Vancouver
Wise, Robert S, UD, LA.....	Cedar Falls, Ia
Wise, Violet M, LD, Phar.....	Tacoma
Wiseman, B Evangeline, Unc, Ed, Corvallis	
Wiseman, Orville, LD, LA.....	Seattle
Wislen, Byron, LD, LA.....	Seattle
Wiswall, Henry M, LD, Sci.....	Vancouver
Withrow, Faye, LD, LA.....	Seattle
Witney, Leslie W, Unc, Eng.....	Everett
*Witte, Louis J, Bus.....	
Wittenberg, Louis H, LD, Sci.....	Seattle
Witting, Arthur F, Fr, Eng.....	Tacoma
Wohlrahe, Raymond A, UD, Sci.....	Seattle
Wolfe, Chia Chin, Sp, Bus.....	Seattle
Wolfe, Joe, LD, Bus.....	Seattle
Wolfe, John B, LD, Bus.....	Tacoma
Wolfe, Merle, LD, Bus.....	Seattle
Wolff, Alice, LD, Bus.....	Seattle
Wollaston, Francis O, LD, EE, Victoria, BC	
Wong, Elsie Nyuk Tsai, LD, Sci.....	Hawaii
Wong, Frank Su-dong, UD, Bus.....	Seattle
Wong, Fred C, LD, Sci.....	Seattle
Wong, Walter, LD, Bus.....	Seattle
Wood, Carl E, UD, ChE.....	Seattle
Wood, Everett P, LD, Bus.....	Seattle
Wood, Florence, UD, FA.....	Seattle
Wood, Harold S, LD, Bus.....	Sunnyside
Wood, Hazel E, LD, LA.....	Seattle
Wood, James L, LD, Bus.....	Seattle
Wood, Oak D, UD, Bus.....	Hood River, Or
Wood, Mrs. Rose B, LD, Sci.....	Seattle
Wood, Varian G, UD, Sci.....	Granite Falls
Wood, Wm Russell, UD, For.....	Seattle
Wood, Zilphia L, LD, FA.....	Tacoma
Woodall, Otis, LD, Eng.....	Ephrata
Woodbridge, Frederick W, UD, Bus.....	Seattle
Woodcock, Lucy, LD, Sci.....	Dungeness
Woods, Elmer S, LD, LA.....	Seattle
Woods, Rachel A, UD, LA.....	Seattle
Woods, Richard, LD, Bus.....	Seattle
Woods, Ruth E, UD, LA.....	Cle Elum
Woldridge, Roy, Grad.....	Ferndale
Woodward, Carrie, LD, LA.....	Seattle
Woodworth, Claude J, 1st Law, R1 Eastsound	
*Woodworth, Earl, UD, Bus.....	Nooksack
Workman, Nadine L, LD, Bus.....	Seattle
Workman, Spencer J, LD, Eng.....	Colville
Worswick, Luella A, LD, Bus.....	Seattle
Worthington, Harold L, LD, CE.....	Quilcene
Worthington, Norman P, LD, Bus.....	Quilcene
Worthington, Robt E, UD For.....	Quilcene
Worthley, Chas Bond, UD, EE.....	Tacoma
Wotherspoon, Agnes M, LD, Sci.....	Seattle
Wren, Harper, LD, LA.....	Seattle
Wright, Allen C, UD, EE.....	Seattle
Wright, Elsie C, LD, Ed.....	Seattle
Wright, Eugene M, LD, Bus.....	Bellingham
Wright, Frank H, LD, WE.....	Seattle
Wright, George P, LR, LD, Bus.....	Tacoma
Wright, Guy S, LD, EE.....	Seattle
Wright, Mrs Helen E, LD, LA.....	Seattle
Wright, Howard H, LD, Bus.....	Everett
Wright, Jack Willis, LD, LA.....	Seattle
Wright, Leota, UD, Ed.....	Camas
Wright, A Russell, LD, Bus.....	Seattle
Wright, Walton E, LD, EE.....	Walla Walla
Wright, Wilma C, LD, LA.....	Tacoma
Wurzbacher, Marian B, LD, FA.....	Seattle
Wyers, Marie, LD, LA.....	White Salmon
Wyers, Teunis J, LD, LA.....	White Salmon
Wyman, Thornton D, Unc, Law.....	Seattle
Wynne, Vivian E, UD, Sci.....	Ferndale
Yabroff, Elias, Unc, EE.....	Seattle
Yamaoka, George, LD, LA.....	Seattle
Yates, Dewey, UD, Bus.....	Clarkston
Ybojos, Marcelino V, LD, Bus.....	Philippines
Yeager, Fred A, UD, ME.....	Spokane
Yoshimura, Tamekishi, LD, Bus.....	Japan
Youell, Thomas H, LD, LA.....	Seattle
Youlden, Charles S, LD, Bus.....	Butte, Mont
Youle, Gretchen, LD, LA.....	Seattle
Young, Albert C, LD, Sci.....	Seattle
Young, Arthur B, UD, Bus.....	Stanwood
Young, Dorothy V, UD, Sci.....	Tacoma
Young, Edle F, UD, Sci.....	Seattle
Young, Everett, Unc, Sci.....	San Francisco
Young, Alice Mae, LD, FA.....	Charleston
Young, Vernus, LD, Bus.....	Seattle
Young, William W, UD, LA.....	Renton
Young, Wm D, Grad.....	Seattle
Youngquist, Marvin W, LD, EE.....	Goldendale
Ystrom, J Bernard, LD, ME.....	Seattle
Zaar, Clarence W, 1st Law.....	Seattle
Zahl, Herman M, LD, Bus.....	Seattle
Zaluskey, Eugene, Unc, Law.....	Seattle
Zamberlin, Carl, LD, Bus.....	Olympia
Zamora, Lorenzo, LD, LA.....	Philippines
Zee, Chung, UD, Bus.....	China
Zee, Ernest, UD, Bus.....	China
Zels, Duncan, LD, Bus.....	Seattle
Zeller, William B, LD, Sci.....	Walla Walla
Zener, Carlos R, UD, Bus.....	White Salmon
Zener, Robert G, LD, Eng.....	White Salmon
Zickrick, Lyall, Grad, Min.....	Seattle
Ziel, Frederick L, LD, CE.....	Pt Townsend
Zimmerman, Mary L, UD, LA.....	Seattle
Zinthea, Clarence J, LD, ChE.....	Seattle
Zumwalt, Orion, LD, Phar.....	Yakima
Zurbrick, John W, LD, Bus.....	Bellingham
Zwicky, Everett E, UD, Min.....	Kaslo, BC

SUMMER QUARTER STUDENTS—1921

Abbott, Luverne L., Spec. Law, Hinton, Okla.
 Abel, Carl W., Fr, ChE.....Seattle
 Abel, Helen M., LD, Sci.....Montesano
 Abelarde, Jose F., Spec.....Philippines
 Abell, Chas. Henry, LD, Bus.....Seattle
 Aber, James F., UD, Sci.....Seattle
 Adams, Geo. B., Unc, Bus.....Seattle
 Adelson, Abraham M., Jr., EE.....Seattle
 Agen, John Stuart, LD, Bus.....Seattle
 Agonias, Eusebio M., Spec.....Philippines
 Auglia, Jose, LD, Bus.....Seattle
 Ahnquist, Martha E., UD, Ed.....Seattle
 Aitchison, Evelyn V., LD, LA, Berkeley, Cal
 Akin, Cecilia E., UD, Ed.....Seattle
 Albee, Archie V., UD, LA.....Seattle
 Albers, Alvina M., Grad.....Northfield, Minn
 Alden, John H., Grad.....Washington, D. C
 Alder, Martha, Spec, Nurs.....Seattle
 Allen Charles E., Jr, EE.....Seattle
 Allen, Glenna A., Grad.....Seattle
 Allen, Mabelle, UD LA.....Pendleton, Or
 Alpaugh, Irene, LD, Ed.....Laurel, Mont
 Altman, L C, LD, Ed.....Bellingham, Wash
 Alway H G, Unc, Ed. College Place, Wash
 Amos, Felipe R., Soph, For.....Philippines
 Anderson, Estella W., LD, Ed.....Seattle
 Anderson, Ada Charlotte, Grad.....Seattle
 Anderson, Alma C., Grad.....Helena, Mont
 Anderson, Arthur Joel, UD, Bus.....Seattle
 Anderson, Edward G., UD, Ed.....Seattle
 Anderson, Ethel Way, Grad.....Seattle
 Anderson, Georgia E., Unc, LA.....Seattle
 Anderson, Helen E., UD, LA.....Seattle
 Anderson, John F., Unc, Ed. Centralia, Wash
 Anderson, Leroy P., Unc, Law.....Portland, Or
 Anderson, Mrs. L E, UD, Sci.....Seattle
 Anderson, M A, UD, Ed. Harlowtown, Mont
 Anderson, Gena, LD, Bus.....Tacoma
 Anderson, Mary H, UD, LA.....Seattle
 Anderson, Mrs. M, LD, LA, Centralia, Wash
 Anderson, Pearl A, UD, LA, Mabana, Wash
 Anderson, Stanley J, LD, Bus.....Seattle
 Anderson, Rena, Unc, Ed.....Portland Or
 Andrews, Rita Lenora, Grad.....Boise, Ida
 Andrus, Dora Eva, UD Ed.....Seattle
 Appleton, C Floyd, LD, LA.....Seattle
 Arbutnot, I I, LD, Sci.....Seattle
 Archey, Howard Den, UD, Bus.....Seattle
 Arnold, John Alber, UD, Ed. Tacoma, Wash
 Arntzen, Edward J, Grad.....Parkland, Wash
 Attebery, Edgar R, Grad.....Everett, Wash
 Atwood, Stanley F, UD, LA, Prosser, Wash
 Aune, Bernat, Unc, LA.....Bangor, Wash
 Austin, Russell A, LD Bus.....Aberdeen, Wash
 Artelle, George E, UD, Sci.....Seattle

Bachelor, Robert W. UD, Bus. Tacoma, Wash
 Bailey, D A, LD Sci.....Walla Walla, Wash
 Bailey, Myron E, UD, Ed.....Seattle
 Bailey, William L, 1st Law.....Seattle
 Bailie, Marcia P, LD, LA.....Seattle
 Baird, Oscar W, Grad.....Tacoma, Wash
 Baker, Carl O, UD, Bus.....Garfield, Wash
 Baker, Charity F, UD, Bus.....Seattle
 Baker, Martin H, UD, Ed.....Robe, Wash
 Baker, Portia, Grad.....Seattle
 Baker, Ruth E, LD, Sci.....Seattle
 Baldwin, Anna Laura.....Spokane, Wash
 Baldwin, Clarence H, UD, Bus.....Seattle
 Ball, Rollyn John, LD, BA.....Seattle
 Ballard Louise Estelle Summers, Spec.....
 Bancroft, Clyde A, Unc, Ed.....Seattle
 Banwarth, C G, UD, Bus. Snohomish, Wash

Barker, Carl Vincent, Grad. Morton, Wash
 Barnhisel, Kathryn, UD, Ed.....Seattle
 Barquist, Walter C, Soph, Mines.....Seattle
 Barrett, Lol, Uns. LA.....Ferndale, Wash
 Barton, Bess, Unc, Ed.....Puyallup, Wash
 Bassett, Samuel B, LD LA.....Montesano, Wash
 Bates, Kenneth O, UD Bus.....Tacoma, Wash
 Baumgartner, F, Unc Sci.....Okanogan, Wash
 Bayley, Elizabeth P, LD, LA.....Seattle
 Bazzett, Hamilton S, LD, Bus.....Seattle
 Beal, Esther Plummer, LD, Sci.....Seattle
 Beardalee, Will G, Unc, Law.....Bothell, Wash
 Beauchamp, Grace, LD, LA.....Winlock, Wash
 Beck, Agatha Rena, Unc, FA.....Alpha, Wash
 Beck, Harry George, Unc, Sci.....Seattle
 Becker, Gladys Aileen, Grad.....Seattle
 Beers, Emma M, Spec, Ed. Plattville, Wis
 Bell, Adna May, LD, Sci. Vancouver, B. C.
 Bell, Bessie B, UD, Sci.....Logansport, Ind
 Bell, James Millar, Spec. Fish.....Seattle
 Bell, Mrs Lydia B F, Grad. St. Anthony, Ida
 Bell, Otis Emmet, LD, Ed.....Seattle
 Bell, Ward Y, Soph, EE, Port Angeles, Wash
 Bellingham, Norman, UD, Bus. Tacoma, Wash
 Belstad, Walter Cyrus, Soph, Phar. Seattle
 Bennett, Albert Lee, Grad.....Seattle
 Bennett, Mabel Alma, LD, LA.....Mosier, Or
 Bennett, Richard F, LD, LA, Kirkland, Wash
 Benthien, Elsie Marie, Grad. Tacoma, Wash
 Berg, George F, Spec, Phar.....Seattle
 Berglund, Thos Henry, LD, Bus.....Seattle
 Bergman, Charlotte, LD, Ed.....Seattle
 Berquist, Fred E, UD, LA, Spokane, Wash
 Berry, Elizabeth Jane, Grad. Vancouver, B C
 Berry, Harriett May.....Kinsman, O
 Bert, Wilfred K, Soph, EE.....Seattle
 Bess, Sarah Olive, Spec, Ed. Caldwell, Ida
 Bettner, Virgil O, LD, Sci. Anacortes, Wash
 Blackford, Ethel Mary, Grad. Hood River, Or
 Blien, Henry Hyl-Sung, UD, Bus.....China
 Blesen, Anne, Spec, Ed.....Portland, Or
 Bille, Margaret J, UD, Ed. Tacoma, Wash
 Bingham, Florine M, LD, FA.....Seattle
 Birks, Margaret E, Grad.....Tacoma, Wash
 Birney, Frances M, Unc, FA. La Grande, Or
 Bissett, Clark P, Jr, LD, LA.....Seattle
 Bitter, Esther Anna, UD, Ed. Spokane, Wash
 Bixby, Florence M, Ed.....Bellingham, Wash
 Bjorquist, Enoch J, LD, LA Spokane, Wash
 Black, Alice Walker, Spec, Nurs.....Seattle
 Blackburn, R L, UD, LA.....Republic, Wash
 Blain, Edith M, LD, Ed. Armington, Mont
 Blaine, Edward L, Jr, UD Bus.....Seattle
 Blaylock, Thomas R, Unc, Ed.....Seattle
 Bloes, Anna Barbara, Ed.....Lincoln, Ill
 Blosser, Mrs St B, LD LA. Snohomish, Wash
 Boeckes, Charlotte.....McMinnville, Or
 Bohart, Ruby May, LD, Sci.....Seattle
 Bole, John C, LD Bus.....Seattle
 Bole, Mildred Hill, LD, Ed.....Seattle
 Bollan, Darrell C, LD, Sci.....Portland, Or
 Bollman, Dean Stanley, Grad. Tacoma, Wash
 Bolton, Edwin Latham, Jr, ME.....Seattle
 Bond, Rowena, Grad.....Seattle
 Bond, Sara, Spec, LA.....Seattle
 Bonner, Pearl, UD, Ed.....Centralia, Wash
 Bonney, Lucertia C, Grad.....Pendleton, Or
 Booman, Albert, UD Ed.....Lynden, Wash
 Booman, Ellen V, Unc, Ed.....Lynden, Wash
 Boundy, Chas Milburn, LD Ed.....Seattle
 Boutelle, Virginia S, LD, LA.....Seattle
 Bowden, Kebble Elworthy, Fr, EE.....Seattle
 Bowen, Albert Henry, Spec ChE.....Seattle
 Bowles, Allan, Grad.....Vancouver, B C

Bowman, Edna E, UD, Ed....Eberett, Wash
 Boyd, Almira Patrica, LD, FA.....Seattle
 Boyd, Esther E, Unc, LA.....Seattle
 Boyd, Gail Agnes, Unc, Ed.....Boyd, Mont
 Brackett, Eunice M, LD, Ed.....Seattle
 Bradeson, Victor D, Unc, LA.....Salem, Or
 Bradley, Mabel Gilmore, Unc, LA.....Seattle
 Brandriff, H. UD, Sci.....Terra Haute, Ind
 Branshaw, W. G., Unc, Ed.....Hoquiam
 Brazier, John M, LD, Bus.....Seattle
 Bressler, Margaret, UD, LA.....Centralia
 Brethorst, Alice B, LD, LA.....Seattle
 Brickell, Charles B, 2nd Law.....Seattle
 Bridgman, Alfred W, LD, Bus.....Vashon
 Bridston, Albertine O, UD, Ed.....Seattle
 Bringham, Lyle D, LD, Bus.....Seattle
 Brinck, Stephen Marius, Grad.....Seattle
 Bronson, Ira Lloyd, Unc, Law.....Seattle
 Brooks, Clark F, Spec, BA.....Hazelton, Ida
 Brosten, Ragan, Unc, Ed.....Cooperstown, ND
 Brower, Myron Taylor, LD, Bus.....Seattle
 Brown, Earl Theodore, Grad.....Centralia
 Brown, E. O., UD, Sci.....Friday Harbor
 Brown, Grace A, LD, LA.....Seattle
 Brown, Francis L, UD, Bus.....Yakima
 Brown, Julia Merriman, LA.....Denver, Colo
 Brown, Lois Eula, Grad.....Rockford
 Brown, Melvin E, LD, Ed.....Rockford, Wash
 Brown, Stephen D, Spec, Bus.....Seattle
 Brown, Warren, Grad.....Seattle
 Browne, Mary C, LD, LA.....Selah
 Braumbaugh, Florence, Unc, FA.....Seattle
 Brush, Laura J, LA.....Washington Boro, Pa
 Bryce, Margaret, Spec, Sci.....Tacoma
 Buchan, K F, Grad.....Waukegan, Wis
 Buchanan, Victor, Unc, LA.....Seattle
 Buck, Margaret, LD, LA.....Seattle
 Buckingham, Z L, Unc, FA.....Forest Grove, Or
 Bugge, Elwyn, UD, Ed.....Seattle
 Buifinch, Dorothy, Unc, Ed.....Weston, Or
 Bunday, Maude, Grad.....Forest Grove, Or
 Burch, Clara C, UD, FA.....Ellensburg, Wash
 Burgess, Ruth, Grad.....Portland, Ore
 Burke, Frederick T, LD, Sci.....Portland, Or
 Burke, Kendall E, UD, Ed.....Seattle
 Burke, Mary K, LD, LA.....Seattle
 Burkman, Joel A, LD, Ed.....Seattle
 Burligh, Beasie M, UD, Ed.....Seattle
 Burnam, Ann, Spec, Ed.....Tolt, Wash
 Burnham, Constance O, Grad.....Wapapa, Wis
 Burns, Clara D, Unc, FA, Mt. Vernon, Wash
 Burns, Jessie E, LD, LA.....Seattle
 Burrows, Eleanor, LD, LA.....Seattle
 Burrus, Thurlow M, LD, Sci.....Spokane, Wash
 Bursell, M A, UD, Ed.....Seattle
 Bursett, Maurice B, LD, Bus.....Harlem, Mont
 Burtis, J Lynn, Spec, Bus.....Portland, Or
 Burton Nellie Aline, LD, Bus.....Seattle
 Busch, Eva Eleanor, Grad, San Francisco, Cal
 Butler, Jessie-Eloise, Punc, Sci.....Seattle
 Butler, Mayo P, Soph, MB.....Seattle
 Butsch, R L C, Unc, Ed.....Ritzville
 Button, Malcolm P, LD, Bus.....Hood River, Or
 Button, Ray E, LD, Bus.....Duvall, Wash
 Byers, John, LD, Sci.....Everett, Wash
 Bryne William G, Fr, CE.....Seattle
 Byrne, Marie, Grad.....Spokane

Campbell, Mrs Nellie, Spec, Sci.....Seattle
 Campbell, Ruth, Grad.....Fuyallup
 Cannon, James B, Spec, Bus.....Colby
 Canon, Donald M, LD, Bus.....Seattle
 Carbajose, V, LD, Bus.....Philippines
 Carleton, Smith, Spec, Ed.....Seattle
 Carlson, Anna E, Spec, Sci.....Seattle
 Carlson, Hulda M, UD, Ed.....Seattle
 Carlson, Rose M, Unc, LA.....Denver, Col
 Carlyle, Ruth E, Unc, LA.....Anacortes, Wash
 Carnahan, Anna, Unc, Ed.....Glenn Ferry, Ida
 Carothers, R DeForest, Spec, Bus.....Seattle
 Carrifgan, Rose M, Spec, Ed.....Seattle
 Carroll, Frank S, Jr, MB.....Seattle
 Carroll, Nell Wagner, Spec, Bus.....Seattle
 Carson, Helen Inglis, LD, Sci.....San Jose, Cal
 Carson, Mary Giddings, Spec, Ed, Denver, Col
 Carson, Myra Agnes, Unc, Ed.....Denver, Col
 Carter, Mary Elizabeth, LD, LA.....Seattle
 Carter, Edward S, LD, LA.....Seattle
 Cartwright, Laura D, UD, LA.....Seattle
 Case, Austin F, UD, LA.....Seattle
 Casey, Harry P, Spec, Bus.....Seattle
 Cassidy, Orpha,Pullman
 Castillo, Margaret, Spec, Sci.....Havilah
 Castner, Burton Menauh, UD, Sci.....Seattle
 Cave, Dorothy, Unc, LA.....Winslow
 Cave, Floyd A, LD, LA.....Seattle
 Cave Roy Clinton, LD, LA.....Seattle
 Chadbourn, C A, Unc, Bus.....Crescoto, Wash
 Chaire, Donald, Unc, LA.....New York N Y
 Chalmers, Isabel, LD, Sci.....Forest Grove, Or
 Chamberlain, Elizabeth, Grad.....Seattle
 Chamberlin, HW., Spec, Sci.....Kettle Falls
 Chamberlain, Percy, Grad.....Seattle
 Chambers, Horace, LD, LA.....Seattle
 Chan, Leung-Shi, Fr, CE.....China
 Chapman, Edith, LD, LA.....Seattle
 Charnley, Mitchell V, Grad.....Goshen, Ind
 Charroin, Ida R, LD, Ed.....So Bellingham
 Charter, Marguerite, Unc, Sci.....Seattle
 Chase, Warren Leroy, LD, Bus.....Yakima
 Cheng, Chien-Feng, UD, Bus.....China
 Cheng, Chung Kuei, Grad.....China
 Chiba, Yasukichi, Grad.....Seattle
 Childs, Ruth E, LD, Ed.....Yakima
 Chilson, Claude N, UD, Ed.....Odessa, Wash
 Chiu, Chun, Unc, Ed.....China
 Christofferson, W G, LD, Sci.....Seattle
 Churches, Aida E, Spec, Ed.....Everett
 Clark, Alta M, LD, LA.....Seattle
 Clark, Cella L, UD, Ed.....Mt. Vernon
 Clark, E R, UD, LA.....Ellensburg
 Clark, Hazel Kitty, Unc, Sci.....Pratt, Kans
 Clark, Newman Hall, LD, LA.....Everett
 Clark, Paul B, Unc, ME.....Wenatchee
 Clarke, Florence Roberta, Grad.....Seattle
 Clarke, Loretta L, LD, Sci.....Auburn
 Clauson, Nils Y, Grad.....Red Wing, Minn
 Clayton, A M, (Shelton) Grad.....Seattle
 Clemans, Irene V, LD, FA.....Clarkston
 Cleveland, N C, Unc, LA.....Boulder, Col
 Clevenger, S Vail, Spec, Bus.....Blackfoot, Ida
 Clinch, Vernon Marion, LD, LA.....Seattle
 Clippinger, Agnes B, LD, Ed.....Prosser
 Close, Anita L, LD, Ed.....Kalama, Wash
 Cluphr, Maud Mae, Grad, Richmond, Wash
 Cobb, Christina M, UD, Ed, Richmond, Wash
 Cochran, Catharyn E, UD, LA.....Seattle
 Cobb, Maurice F, LD, Sci.....Spokane
 Coe, Luella Eva, Grad.....Yakima, Wash
 Coffinberry, Pearl Sibyl, Grad.....Seattle
 Coffman, Mabel M, UD, LA.....Bellingham, Wash
 Cohn, Eugene S, Unc, Bus.....Seattle
 Cohn, Lewis Maurice, LD, Sci.....Seattle
 Cole, Clinton Forrest, LD, FA.....Seattle
 Cole, Miriam Elizabeth, Grad.....Seattle
 Cole, Sypha J, UD, LA.....Bellingham, Wash
 Cole, Thelma N., UD, FA.....Sprague, Wash
 Collins, W. Chapin, Grad.....Seattle

Cady, Oaman Horace, Grad.....Seattle
 Cago, Mary, Grad.....Los Angeles, Cal
 Callow, Annabel, Unc, LA.....Spokane, Wash
 Callow, Doris, LD, FA.....Seattle
 Calvert, Henderson Starr, Unc, Bus.....Seattle
 Cameron, G R, UD, LA.....Bellingham
 Campbell, A, Jr, LD, Bus.....Seattle
 Campbell, C. G., UD, Ed.....Bellingham
 Campbell, D McC M, Fr, Phar.....Seattle
 Campbell, J A, UD, LA.....Rolling Bay
 Campbell, J E, Spec, LA.....Chimacum

Collins, Cyril A., Fr. Eng.Seattle
 Conboy, Irene K., UD, Ed.Denver, Col
 Condit, Charlotte Frances.Bliss, Ida
 Connell, Archie M., Grad.Freewater, Ore
 Conner, Ruberta G., Unc, LA.Tacoma, Wash
 Conney, Kathryn, Grad. Sedro-Woolley, Wash
 Connors, Caroline, Grad.Seattle
 Cook, Raymond B., Grad.Chehalis, Wash
 Coonay, Alta, UD, Ed.Seattle
 Cooper, S. Helen, LD, Ed.Charleston, Wash
 Cooper, Rebecca, UD, LA.Seattle
 Copland, Nena, Unc, Ed.Seattle
 Cordero, Rosario M., Jr, Phar.Philippines
 Cordner, Emma M., Grad. Walla Walla, Wash
 Cordz, Lee Otis, Unc, Ed.Everett, Wash
 Cornello, Celerino S., LD, Sci.Philippines
 Costello, Mary C., Grad.Spokane, Wash
 Coryell, Mary Josephine, Unc, LA.
 Coughlin, Irene.Helmville, Mont
 Coupez, Louis Albert, LD, Sci.Seattle
 Cowley, Craig Francis, Unc, EE.Seattle
 Cowling, Owen S., LD, LA.Spokane, Wash
 Cox, Manning William, Grad.Seattle
 Coy, Katharine, LD, FA.Yakima, Wash
 Craigen, Ethel F. LD, Ed.Seattle
 Crane, Lillian Alice Dean, UD, LA.Seattle
 Craike, Fred, Grad.Seattle
 Crawford, Emily A., LD, LA.Tacoma, Wash
 Creamer, Evelyn M., LD, LA.Ferndale, Wash
 Creamer, Henry, Grad.Seattle
 Cress, Alberta M., Unc, BA Walsenburg Colo
 Crim, Madison V., Spec, Bus Woodinville, Wn
 Criswell, Lois, LD, LA.Seattle
 Crofoot, Mentha Lucine, UD, Ed.Seattle
 Crofoot, Vanita May, UD, Sci.Seattle
 Cronin, Nona, LD, Bus.Butte, Mont.
 Crouley, Beatrice Marguerite, LD, LA.Seattle
 Crow, Evelyn E., UD, Ed.Bend, Ore
 Crowder, Harriet, LD, Sci.Seattle
 Croy, Donald C., Unc, Ed.Bellingham, Wash
 Crummett, Ella, Unc, Sci.Conway, Wash
 Cunningham, Estelle, Spec, Sci. Puyallup, Wn
 Cunningham, Lester Allan, LD, Bus.Seattle
 Cunningham, Rosamond R., UD, Bus.Seattle
 Curry, Mauryce Louise, Grad.Kalama
 Currie, Isabella, Spec, Ed. Camrose, Alta, Can
 Curtis, Jesse W., Grad.Fairfield, Wash
 Cutts, Beatrice Tyler, UD, LA.Seattle

Daley, Myrtle F., Unc, Ed.Spokane, Wash
 Dalton, John Clark, LD, Bus. Yakima, Wash
 Damerell, Vivian Richard, LD, Sci.Seattle
 Damon, Verne La Due, Grad.Seattle
 Daquiong, Sebastian, LD, Ed.Philippines
 Daugherty, Frank T., Spec, Jour.Seattle
 Davenport, Erma, Unc, LA.Sumpton, Ore
 David, Emerson E., UD, Bus.Seattle
 Davidson, Mrs. Johanna, Spec, El Pasco, Wn
 Davidson, John W., Grad.Raymond, Wash
 Davis, Eunice Dorothy, LD, LA.Seattle
 Davis, Dorothy Carvel, UD, Sci.Seattle
 Davis, Miss Frank Harris, Unc, Ed.Seattle
 Davis, Harriet Ella, Unc, FA.Seattle
 Davis, Stephen M., UD, Bus.Portland, Ore
 Davis, Mercie Irene, LD, LA.Donald, Wash
 Davis, Paul Adams, UD, Ed.Sequim, Wash
 Davis, Ralph Jefferson, LD, Bus.Seattle
 Davis, Ruth M., Jr, Phar.Bellingham, Wash
 Day, Chester G., Unc, Law.Touchet, Wash
 Day, Leta, Unc, Bus.Seattle
 Day, Margaret E., UD, LA.Clarkston, Wash
 Dean, John Ralph, Spec, Bus.Seattle
 Dearborn, Elizabeth, Grad.Seattle
 Deets, Walter George, LD, Sci.Seattle
 DeGrief, Leroy, Grad.Colville, Wash
 Delaney, Eileen, UD, LA.Seattle
 Dellinger, Sarah S., UD, Ed.Everett, Wash
 Denman, Howard W., LD, Ed.Cashmere, Wn
 De Sota, Alexander, LD, LA.Seattle

Dick, Elma Martha, LD, FA.Lewiston, Ida
 Dickerson, William Eugene, UD, Bus.Seattle
 Dickinson, Lois A., Grad.Okanogan, Wash
 Dickson, Elizabeth, LD, LA.Buffalo, NY
 Dietrich, Eleanor A., UD, Sci.Helena, Mont
 Dillon, Ruby Lois, Unc, LA.Weiser, Ida
 Dimock, Stuart Marshall, Jr, OB.Seattle
 Dingle, Esther L., Unc, LA.Yakima, Wash
 Dingle, Helen, UD, Bus.Yakima, Wash
 Docherty, Mary, UD, LA.Puyallup, Wash
 Dodd, Harry LeRoy, LD, Ed.Seattle
 Dodd, Joseph, Soph, EE.Seattle
 Dodge, Bradley M., LD, Ed.Renton, Wash
 Doell, Lydia J., LD, Ed.Lind, Wash
 Donahue, Alfred B., Unc, Ed.Ellensburg
 Donovan, Theodore Emerson, Jr, ME.Seattle
 Dorman, Hugh Bardue, Unc, LA.Seattle
 Douglas, Donald E., UD, Bus.Seattle
 Douse, Esther, Spec, Sci.Seattle
 Dover, Leon D., LD, Bus.Seattle
 Down, Andrew, UD, LA.Lacey, Wash
 Downs, Mabel, Unc, LA.Portland, Ore
 Drake, Geraldine C., UD, Ed. Wenatchee, Wn
 Draves, Carl Zeno, Grad.Seattle
 Draves, Galen B., Spec, Bus.Seattle
 Drummond, Elizabeth M., Grad. Tacoma, Wash
 Dryden, Alberta, Unc, Ed.Peck, Ida
 Dryden, Lockie, Unc, LA.Larned, Kans
 Dunn, Mrs. Annie H., LA.Seattle
 Duncan, Annie S., Spec, Sci. Okotoks, Alta, Can
 Duncan, Margaret, LD, LA.Red Bluff, Cal
 Duncan, Pansey, Unc, BA.Toppenish, Wash
 Dunham, Frances G., Spec, Ed. Auburn, Wash
 Dunn, Helen M., UD, Sci.Waterville, Wash
 Dunn, John Joseph, 1st Law.Seattle
 Dumphy, Helen C., UD, LA.Walla Walla, Wn
 Dunton, Forrest E., Grad. Castle Rock, Wash
 Dunton, Sarah G., Unc, Ed.Molalla, Ore
 Dupuis, James J., LD, Bus.Seattle
 Dwelle, Horatio S., Unc, Ed.Seattle

Eagleson, Helen Elizabeth, Grad.Seattle
 Earnest, Robert Roy, LD, Ed.Bothell, Wash
 Easterbrook, W. G., Soph, Eng. Pt. Townsend
 Easterbrooks, Adeline L.Seattle
 Eaton, Dorothy Trimble, LD, LA.Seattle
 Eckmann, Ray L., LD, Bus.Seattle
 Eckmann, Stella R., UD, Sci.Yakima, Wash
 Ector, Phebe Payne, UD, Ed.Seattle
 Edades, Victorio, LD, FA.Philippines
 Edwards, Grace, Grad.Connersville, Ind
 Edwards, Elizabeth Mae, LD, LA.Seattle
 Edwards, Robert S., Unc, Sci. Mercedes, Tex
 Effinger, Vivian, LD, FA.Seattle
 Egan, Marie Agnes, LD, Ed.Seattle
 Eggers, Elizabeth, Unc, LA.Bellingham, Wn
 Ehrlich, Dorothy, UD, LA.Seattle
 Eidai, Elmer O., Unc, Ed. Ellensburg, Wash
 Eidai, Sarah E., LD, Ed.Ellensburg, Wash
 Eierman, Gertrude A., UD, Ed. Doland, S.D.
 Eisenmann, Augusta, Grad. Nebraska City, Neb
 Elliott, J. Delphos, LD, Bus.Outlook, Wash
 Ellis, Leon Hubbard, 3rd Law Spokane, Wn
 Ellis, Ruth Lee, Unc, Ed.Filler, Ida
 Ellsworth, Paul T., Grad.Seattle
 Elvin, Cora Florence, LA.Toronto, Kans
 Elwick, Andrew, UD, Bus.Seattle
 Ely, John Carl, UD, FA.Seattle
 Elyea, Winifred, Unc, LA.Tacoma, Wash
 Emmerich, Arthur J., Spec, Ed. Portland, Ore
 Emerson, Donald A., Unc, Ed. Valleyford, Wn
 Endres, Teresa, UD, Ed.Spokane, Wash
 English, Elsie, Grad.Seattle
 Erickson, Orin H., Spec, Bus.Pocatello, Ida
 Ester, Laurena, Unc, Bus.Kirkland, Wash
 Ettinger, Dorothy, Grad.Seattle
 Evans, Catharine Lois, UD, FA.Canby, Ore
 Evans, Earl Huston, Spec, Ed.Everett, Wash

Fairbanks, Adelaide, UD, LA., Yakima, Wash
 Falk, Winona Moore, LD, LA., Seattle
 Farley, Helen Marie, Grad., Seattle
 Farwell, Raymond Forrest, Grad., Seattle
 Fast, Lisette Emery, Grad., Denver, Colo
 Fealhaber, Carl Theodore, Unc, Sci., Seattle
 Felch, Margaret, Unc, Sci., Seattle
 Felitz, Vernita Caroline, UD, Ed., Seattle
 Fellers, Mrs. Josephine S, UD, FA., Seattle
 Fernyhough, Harold S, Unc, Bus., Seattle
 Ferrill, Eulalia, Unc, Sci., Marcus, Wash
 Ferris, Edith Lucile, LD, Sci., Seattle
 Ferris, Myrtle Mae, Unc, LA., Portland, Ore
 Fifer, Eva L, LD, Sci., Seattle
 Finney, Mary Beller, Spec, Sci., Tacoma, Wn
 Fisher, Henry Clay, Unc, Sci., Orchards, Wn
 Fitzgerald, Edna May, LA., Bzeman, Mont
 Fitzsimmons, Leola P, Ed., Marshall, Minn
 Flagg, Paul McLeod, Jr, ChE., Seattle
 Fleenor, Mrs. Mame, UD, LA., Seattle
 Fletcher, Elizabeth B, UD, LA., Tacoma
 Flint, Lola, Grad., Ft Townsend, Wash
 Flowers, Goldie, LA., Burton, Wash
 Floyd, Ruth Marion, Grad., Seattle, Wash
 Foley, Vernie M, Unc, Sci., Hamilton, Mont
 Foo, Yao Cheng, UD, Bus., China
 Forbes, Edith, LD, LA., Portland, Ore
 Forbes, Grace M, Unc, Ed., Birmingham, Ala
 Ford, Clara Louise, Grad., Brooklyn, Mich
 Forman, Sarah P, Unc, Ed., Yakima, Wash
 Forrest, Lela May, LD, LA., Seattle
 Forrest, Veda, Unc, LA., Bellingham, Wash
 Foss, Mary Loretta, UD, FA., Seattle
 Foster, Charles Jacob, Unc, Ed., Seattle
 Foster, Frank Kale, LD, Ed., Hilliard, Wash
 Foster, Harry Ellsworth, 2nd Law., Seattle
 Foster, Olive Reeves, Grad., Denver, Colo
 Foulke, Homer, Unc, LA., Cory, Ind
 Fowler, Elizabeth Thompson, Grad., Seattle
 Foye, Mary Ellen, Spec, Sci., Monroe, Wash
 Francis, Byron Franklin, LD, Sci., Seattle
 Frankenfield, Lorraine, Grad., Los Angeles
 Franklin, Charles Herbert, Soph, BE, Seattle
 Fraser, Alice, Grad., Burton, Wash
 Fraser, Alice Rosena, Grad., Burlington, Wash
 Fraser, James Ewart, LD, Bus., Yakima Wn
 Fraxer, Mary C, Unc, LA., Medina, Wash
 Frazier, Mrs. Edna H, Unc, LA., Winlock, Wn
 Frazier, Stuart Charles, LD, LA., Seattle
 Frem, Horace Henderson, UD, Bus., Seattle
 French, Mrs. Jennie M, Unc, Ed, Tacoma, Wn
 French, Merle C, UD, LA., Vancouver, Wash
 Friend, Sadie, Unc, LA., New Albany, Ind
 Fry, Chas. A, Unc, Ed., Portland, Ore
 Furber, George Churchill, 2nd Law., Seattle
 Fujita, Michinari, Grad., Seattle

Gaa, Jose, LD, Bus., Philippines
 Gagan, Hannah Dale, LD, LA., Seattle
 Gahringer, John Edward, LD, Sci., Seattle
 Galbraith, Harriet, LD, Sc., Burnaby, BC
 Gallagher, J. O, LD, LA., Bellingham, Ala
 Ganders, H. Stanley, Grad., Seattle
 Gander, J. James, UD, Sci., Seattle
 Ganders, Mary Louise, UD, LA., Seattle
 Gannon, Edward, Unc, LA., Bellingham, Wash
 Garin, Gustave Rene, Spec, For., Seattle
 Garrison, Rupert, Soph, Min., Seattle
 Garver, Inex L, Unc, Ed., Clarkston, Wash
 Gaskill, Ben, LD, LA., Coupeville, Wash
 Gaston, Dorothy Ruth, Fr. Phar., Seattle
 Gates, Edith, UD, Ed., Seattle
 Gathings, Walter W, Spec, Bus., Seattle
 Gehrette, Katherine M, UD, Ed., Oakland, Cal
 Gellermann, Louis Wanger, UD, Ed., Seattle
 Gellermann, Mrs. Mildred P, UD, LA., Seattle
 Gellermann, William, UD, LA., Seattle
 Gemmell, Fred M, Unc, Ed., Puyallup, Wash
 Gendron, Noella Antoinette, LD, Ed., Seattle

Gorgeson, Dagmar, Grad., Sitka, Alaska
 German, Cornelio, Unc, BE., Philippines
 Gibson, Frederick Oliver, LD, LA., Seattle
 Gilbert, Horace N, LD, LA., Yakima, Wash
 Gill, Cecilla Mary, LD, LA., Seattle
 Gilliland, William Lester, Grad., Seattle
 Gillmore, Cecilla C, Grad., Dallas, Tex
 Gilmore, June Reba, LD, FA., Seattle
 Gilroy, Helen Elizabeth, LD, LA., Seattle
 Glover, Oscar Kern, Grad., Summer, Wash
 Godsey, (Helsel) Bess, Unc, Ed., Seattle
 Goins, Ambia Lila, Grad., Edmonton, Alta, Can
 Goins, Nannie C, Spec, FA., Seattle
 Goldman, Jack, LD, Bus., Seattle
 Goodman, Anna Paton, Spec, Sci., Chicago, Ill
 Goodspeed, Harry B, LD, LA., Spokane, Wash
 Goold, Howard Ralph, Grad., Tacoma, Wash
 Gorman, Vinsen E, UD, LA., Portland, Ore
 Corton, Arthur V, Spec, Sci., National, Wash
 Gowdy, Florence M, Grad., Ferndale, Wash
 Grafton, Marlea, UD, LA., Moscow, Ida
 Graham, Charlotte, LD, Ed. Mt. Vernon, Wash
 Graham, Edmina E, Grad., Ottawa, Kans
 Grant, Gary Gale, Jr, ChE., Seattle
 Grant, Hugh McKay, Spec, Eng., Seattle
 Grant, Thomas Selby, 2nd Law., Seattle
 Grauer, John M, Spec, Ed., Seattle
 Graves, Lucius Wallis, LD, Bus., Seattle
 Graves, Ralph Alonzo, Unc, Law., Seattle
 Gray, Josephine, UD, Ed., Arlington, Wash
 Graybeal, Mattie Floss, LA., Damascus, Va
 Green, Frances B, LD, LA., Bellingham, Wn
 Green, James Martin, LD, Bus., Seattle
 Greene, Mary Dering, Unc, Sci., Salmon, Ida
 Greenlee, John Frederick, LD, Bus., Seattle
 Greenough, Roger W, LD, Bus., Spokane, Wn
 Greffox, Hortense P, Grad., Portland, Ore
 Gregg, Ralph, UD, Sci., Conlee City, Wash
 Gribble, Frederick Charles, LD, Bus., Seattle
 Griffin, Helena Feeny, Unc, Ed., Seattle
 Gross, Clara Regina, Grad., Baltimore, Md
 Groat, Martha N, Spec, LA., Renton, Wash
 Guenther, Stuart Henry, LD, LA., Seattle
 Gundlach, Wilford R, UD, LA., Seattle
 Gunlaugson, Joan, Unc, Sci., Montevideo, Minn
 Gunn, Elizabeth, Grad., Gig Harbor, Wash
 Gustavson, Emil G, UD, Bus., Seattle
 Guyet, Paul, UD, Ed., Seattle

Haack, David, LD, Bus., Seattle
 Hagler, Lawrence E, UD, Bus., Yakima, Wash
 Halberstadt, Elizabeth Henrietta, Unc, LA.
 Hale, Harry, Soph, ChE., Seattle
 Haleston, Chris, Soph, Phar., Seattle
 Haley, Louisa, UD, Sci., Seattle
 Hall, Amy Violet, Grad., Vancouver, BC
 Hall, Dessie Alice, LD, FA., Seattle
 Hall, Edward Barton, LD, LA., Seattle
 Hall, Ethel Mae, Ed., Cold Springs, Colo
 Hall, Pearl A, Grad., Caldwell, Ida
 Hall, Ray Jennings, LD, Bus., Olympia, Wn
 Hall, Vernon K, LD, Sci., Vancouver, BC
 Hall, Virginia Lila M, Spec, Ed., Caldwell, Ida
 Haller, Mary Elizabeth, Ed., Seattle
 Hallowell, Lionel B, UD, Bus., Seattle
 Halvorsen, Edwin O, Unc, Bus., Custer, Wash
 Halvorsen, Esther May, Unc, Ed., Salem, Ore
 Halvorsen, Margaret J, Unc, Ed., Salem, Ore
 Halvorsen, Agnes, LD, Bus., Seattle
 Halvorsen, Florence, LD, Sci., Seattle
 Hamerly, Lawrence R, LD, BE., Seattle
 Hamilton, Edna V, LD, Bus., Tacoma, Wash
 Hamilton, Rachel E, Grad., Echo, Ore
 Hamilton, William Albert, Grad., Seattle
 Hamley, Chas. E, Spec, LA., Tacoma, Wash
 Hammerlin, Roy Nels, LD, Bus., Tacoma, Wash
 Hammond, Allen Odell, Grad., Seattle
 Hammond, Allen Odell, Grad., Seattle
 Hammond, Lester C, Unc, Sci., Everett, Wash
 Handley, Wilson LaVerne, Unc, LA., Seattle

Handsaker, John Theodore, Unc, Ed., Seattle
 Hanfey, Mabel V., Spec, Sci., Chehalis, Wash
 Hankinson, Helen Adelaide, LD, LA., Seattle
 Hannan, Henryetta, Unc, Ed., Seattle
 Hanna, Miriam, UD, LA., Seattle
 Hanquet, Louis Charles J. J., Unc, Ed., Seattle
 Hansen, Harry Fesenbeck, LD, Bus., Seattle
 Hansen, Leo, UD, Ed., Lacey, Wash
 Hansen, Viola, UD, LA., Seattle
 Hapner, Leora M., Unc, LA., Bozeman, Mont
 Harris, Charles Leonard, 1st Law., Seattle
 Harris, Florence (Sedalla) LD, Ed., Seattle
 Harris, George Crab, Spec, Bus., Seattle
 Harris, Cornelius Hinman, LD, Bus., Seattle
 Harris, Sarah Eleanor, UD, Ed., Seattle
 Harrison, Mary, Unc, Ed., Toledo, Ore
 Hartge, Lena Armstrong, Grad., Seattle
 Hartman, Elsie Anna, Grad., Anacortes, Wash
 Harvey, Earle A., LD, Sci., Arlington, Wash
 Harvey, John H., UD, Bus., Vancouver, Wash
 Harvey, Ralph A., LD, Sci., Arlington, Wash
 Hasch, Henry J., UD, LA., Deep Creek, Wash
 Hassenmiller, Kenneth L., LD, Bus., Seattle
 Hatch, Dorothy Lois, LA., Esccondido, Cal
 Hatfield, Clara, Unc, Ed., Cottonwood, Minn
 Hatfield, Elmer, Unc, ME., Seattle
 Hattery, Mrs. Ruth M., LD, LA., Pendleton, Ore
 Hauck, Hazel Marie, UD, Sci., Seattle
 Haug, Andrew Johan, UD, Eng., Seattle
 Hauge, Philip, Grad., Parkland, Wash
 Haugum, Evelyn Amy, LD, LA., Seattle
 Hawley, Edith G., LD, FA., Yakima, Wash
 Haworth, Elizabeth, LD, Sci., Seattle
 Hay, Larry, LD, Bus., Sunnyside, Wash
 Hay, Marjorie, LD, Sci., Seattle
 Hayden, Chauncey, Spec., Seattle
 Haynal, John Budd, Sci., Walla Walla, Wash
 Haynes, Ross Eaton, UD, Bus., Lebanon, Ore
 Haynes, Stephen Bernard, Unc, Law., Seattle
 Hazen, Claris Madolyn, UD, Ed., Seattle
 Hazen, Mrs. Harriet W., Spec., Pendleton Or
 Hazleton, Olga Jane, LD, Sci., Spokane, Wash
 Head, Mrs. Sydney, Unc, Ed., Seattle
 Heald, Hazel V., LD, LA., Spokane
 Healy, Timothy, LD, LA., Bellingham, Wash
 Healdfield, Mrs. Margaret, Spec., Seattle
 Helner, Arnold, LD, LA., Seattle
 Helser, Leo Conrad, Spec., FA., Howard, S.D.
 Heitman, John Herbert, Spec., Palouse, Wash
 Hemphill, Elizabeth, Unc, Ed., Seattle
 Hemphill, Harriet, LD, FA., Seattle
 Hender, Maudie, Sci., Pomeroy, Wash
 Henderlite, Claude Elmer V., Grad., Seattle
 Henderson, Winfield L., Grad., Waterville, Wn
 Hendricks, John Joseph, LD, Sci., Seattle
 Henry, Verna Isadore, Grad., Seattle
 Henry, Verne M., Unc, Bus., McMinnville, Ore
 Herbert, Percy, Spec., Seattle
 Hermans, Wayland D., UD, Bus., Pasadena, Cal
 Hernandez, S. C., LD, Bus., Philippines
 Herner, Pauline E., UD, Bus., Portland, Ore
 Herr, Opal, Grad., Seattle
 Herren, William Albert, LD, Bus., Seattle
 Hesselgrave, Charles Everett, Grad., Seattle
 Hesselstine, Lee Frazelle, LD, Bus., Seattle
 Hibarger, Pearl, LD, Sci., Yakima, Wash
 Hibbert, Ralph W., Zillah, Wash
 Hill, Alice M., Spec., Indianapolis, Ind
 Hill, Cyril Dean, Grad., Seattle
 Hill, Glen Gordon, Grad., Riverside, Wash
 Hill, Grace Alma, Grad., Seattle
 Hill, Sidney Bryan, Unc, Law., Riverside Wn
 Hillman, Robert Kline, Unc, Law., Seattle
 Hilstrom, George D., UD, Bus., Vancouver, Wn
 Hinckley, Loretta A., Unc, LA., Tacoma, Wash
 Hiner, Elizabeth, Unc, Sci., Seattle
 Hinman, Charles L., Unc, LA., Yakima, Wash
 Hipsley, William B., Spec., Seattle
 Hirose, Tadayuki, UD, Sci., Japan
 Hjertoos, Gurina Oline, UD, La Toit, Wash

Ho, Pao Jin, UD, LA., China
 Hoag, Edward Samuel, LD, Fish., Seattle
 Hoag, Ruth Gilberta, UD, Sci., Seattle
 Hodges, James Frederick, LD, Bus., Seattle
 Hodges, Jo, Unc, Ed., Seattle
 Hodges, John S., Spec., Edmonds, Wash
 Hodgson, Marion, Grad., Gooding, Ida
 Hoffman, K. E., Unc, Bus., Ellensburg, Wash
 Hoffman, Ruth M., LD, Bus., Olympia, Wash
 Holbrook, C. Ray, Grad., Seattle
 Holbrook, William Paul, Grad., Seattle
 Holden, James H., LD, Ed., Seattle
 Hollingshead, Lillie H., Grad., Boise, Ida
 Holloway, Albert Cecil, LD, LA., Seattle
 Holloway, Edith, H., Unc, Sci., Helena, Mont
 Holmes, Lennox, Grad., Seattle
 Holmes, Marion M., Unc, FA., Portland, Ore
 Holmquist, Hjalmar E., Grad., Aberdeen, Wash
 Holt, Lucy Minerva, UD, Sci., Seattle
 Holton, Karl William, LD, Bus., Seattle
 Hood, Helen R., UD, FA., Puyallup, Wash
 Hootman, Mary R., Unc, Ed., Plainfield, Ohio
 Hoover, Ralph Leonard, UD, Sci., Seattle
 Hopper, Dorothea Conley, UD, LA., Seattle
 Hopper, Clarence Galvin, LD, LA., Seattle
 Hornstra, Fred H., Soph., EE., Auburn, Wash
 Horton, Helen, Unc, LA., Nisqually, Wash
 Hoskins, Naomi M., UD, Ed., Redmond, Ore
 Hosmer, Ruth Rachel, Grad., Seattle
 Hotelling, Harold, Grad., Seattle
 Hover, Ernest John, Unc, Law., Seattle
 Howard, Frances Hyde, LD, LA., Seattle
 Howard, Fred A., LD, Bus., Stanwood, Wash
 Howard, Mrs. Lina Wright, LD, FA., Seattle
 Howe, Blanche W., Unc, Ed., Alden, Minn
 Howell, Evelyn, Unc, Ed., Seattle
 Howes, Melba M., LD, Sci., Friday Harbor
 Howes, Jessie, Grad., Hood River, Ore
 Huang, Hua Piao, Unc, Ed., China
 Hubbell, Ruth M., LD, LA., Spokane, Wash
 Hudson, M. Ethel, LA., Seattle
 Hudson, George Eddy, LD, LA., Seattle
 Hudson, Lullie Lane, Ed., La Grange, Ga
 Huelson, Elizabeth, UD, Sci., Spruce, Wash
 Hughes, Cecil L., Grad., Kennewick, Wash
 Humes, Edmond T., Spec., Phar., Seattle
 Humphrey, Mary Brown, Unc, LA., Seattle
 Hunsaker, James Wiley, Unc, ChE., Seattle
 Hunt, Margaret, Grad., Seattle
 Hurlburt, B., UD, Ed., Thompson Falls, Mont
 Hurley, Dora, LD, LA., Seattle
 Huse, Esther, UD, LA., Weiser, Ida
 Huston, Mrs. Estelle May, Unc, Ed., Seattle
 Hutchins, Ezra Hubert, Unc, Ed., Seattle
 Hutchinson, Ruby, LD, Sci., Mt. Vernon, Wn.
 Hutchinson, William Harold, UD, LA., Seattle
 Hutchinson, Howard Charles, Fr., ChE., Seattle
 Huth, Carlton P., Unc, Law., Tacoma, Wash
 Hyatt, Walbridge Herbert, Unc, Sci., Seattle
 Hyndman, William L., 3rd Law., Spokane, Wn

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 Inouye, Chohel, LD, LA., Seattle
 Irvine, Edgar Lloyd, Unc, Bus., Seattle
 Irwin, John Ivan, UD, Bus., Ionia, Mo
 Ivy, Eugene Dyke, 3rd Law., Davenport, Wash

Jaaden, Nels, Grad., Kingston, Wash
 Jacinto, Victorino, Unc, LA., Philippines
 Jacobs, Mary, Spec., Seattle
 Jacobs, Townsend H., Jr., LD, Bus., Seattle
 Jacobsen, Paul M., Jr., ChE., Ellensburg, Wash
 Jacobson, Agnes, Unc, Sci., Spanaway, Wash
 Jaeger, Waldemar, LD, Ed., Centralia, Wash
 James, Gordon M., LD, Sci., Tacoma, Wash
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 Jaques, Edna A., Grad., Seattle

Jenkins, Margaret, LD, Sci.....Seattle
 Jensen, Arne Sigurd, Grad.Yakima, Wash
 Jensen, Marian G, LD, Sci.Everett, Wash
 Jensen, Walter Ambrose, LD, LA.....Seattle
 Jerbert, Arthur Rudolph, Grad.....Seattle
 Jergenson, Mary, LD, Bus.....Seattle
 Jerome, Vincent B, LD, Ed.....Seattle
 Jerome, William J, LD, LA.Cashmere, Wash
 Jessen, Margrethe, Spec, FA.Tacoma, Wash
 Johnson, Alfred Pullman, Grad.....Seattle
 Johnson, Anna Elizabeth, LD, LA.....Seattle
 Johnson, Dorothea Elisabeth, LD, LA.....Seattle
 Johnson, Florence B, LD, Sci.Bellingham, Wn
 Johnson, Florence K, Unc, Ed.Minocqua, Wis
 Johnson, Hilding, Soph, ChE.....Seattle
 Johnson, John L, LD, Bus.Coeur d'Alene, Ida
 Johnson, Mrs. Leta E, UD, LA.Covallis, Ore
 Johnson, Lorenz Carl, LD, Bus.....Seattle
 Johnson, Oscar R, Spec, LA.Poulsbo, Wash
 Johnson, Ralph C, Grad.....E. Seattle
 Johnson, Raymond L, LD, LA.....Tacoma, Wn
 Johnson, Ruth, UD, LA.....Seattle
 Johnson, Vernon B, UD, Sci.Everett, Wash
 Johnston, Daniel H, Unc, Ed.Portland, Ore
 Jolly, B. Nydia, LD, LA.....Seattle
 Jones, David John, Unc, Ed.Columbus, Mont
 Jones, Gwendolyn Mary, Unc, Ed.Challis, Ida
 Jones, Irma J, Spec, Ed., LA Grande, Ore
 Jones, Margaret B, UD, LA.....Victoria, BC
 Jones, Pauline, Grad.....Kansas City, Mo
 Jones, Raymond A, LD, Sci.....Seattle
 Jones, Zenith Watkins, Grad.....Seattle
 Joubert, Stanley S, LD, Bus.Eauclaw, Wn
 Judd, Elsie G, UD, Sci.....Seattle

Kamel, Richard Shueichiro, LD, LA.....
 Kangley, John Arthur, Grad.....Seattle
 Kangley, Lucy, UD, LA.....Seattle
 Kantner, Nellie C T, Grad.....Everett, Wash
 Karrer, Elizabeth G, Unc, LA.Moab, Wash
 Kassebaum, Emma, Unc, Bus.....Seattle
 Kassebaum, Herman, LD, Bus.Sunnyside, Wn
 Kautz, Bernice Zulme, UD, Ed.....Seattle
 Kautz, Ethel Beryl, UD, Ed.....Seattle
 Keating, Marion, Unc, LA.Tacoma, Wash
 Kee, Sing-Tah, Unc, LA..Shanghai, China
 Keene, Mildred Yockery, Spec.....Seattle
 Kelly, Alice M, Unc, FA.....Spokane, Wash
 Kelley, Curtis, LD, LA..Centerville, Wash
 Kelley, Eugene Lester, Spec.....Seattle
 Kelley, Francis Joseph, Jr, ChE.....Seattle
 Kellogg, Alvah C, Unc, Ed., Grandview, Wash
 Kellogg, George A, UD, Ed.....Seattle
 Kellogg, Howard Butters, LD, Bus.....Seattle
 Kellogg, Jesse, LD, Bus.....Puyallup, Wash
 Kellogg, Mrs. L, Unc, FA Grandview, Wash
 Kellogg, Marion, Unc, FA.....Seattle
 Kellogg, Orson C, LD, Bus.Hoquiam, Wash
 Kelly, Beulah M, UD, FA.Walla Walla, Wn
 Kelly, Raphael L, Grad.....Seattle
 Kelly, Louise Irene, Unc, Sci.Portland, Ore
 Kelso, Kenneth K, LD, LA.....Everett, Wash
 Kempkes, Jay A, Grad.....Everett, Wash
 Kenrall, Anna J, LD, LA McMinnville, Ore
 Kendall, Ver T, LD, Bus.....Portland, Ore
 Kennett, Homer Martin, UD, Ed.....Seattle
 Kepler, Elsie, Grad.....Seattle
 Kerchen, Joseph, Unc, Ed.Dieringer, Wash
 Kermode, Clara A, Unc, LA..Livingston, Mt
 Kerrigan, Sylvia, Grad.....Seattle
 Ketcham, Albert B, Jr, Spec.....Seattle
 Keyes, Harmon Edward, Sr, ChE.....Seattle
 Kidler, Jay D, LD, Bus.....St. Maries, Ida
 Klekenapp, Hortense, UD, Ed.....Seattle
 Killson, Linnie, Grad.....Tacoma, Wash
 Kimura, Koreaki, LD, LA.....Seattle
 Kincaid, Frederick Marshall, 2nd Law.Seattle
 King, Bertha Farley, Unc.Indianapolis, Ind
 King, Cathren M, LD, Sci.....Tacoma, Wash

King, Norris Gardner, Spec.....Seattle
 King, Ottis Schley, Eng.....Seattle
 King, Vicar, Fr, Mines.....China
 Kinnear, Alice Rowe, LD, FA.....Seattle
 Kinney, John M, Unc, Ed..Spartansburg, Pa
 Klipp, Letha Julia, Unc, Ed.....Seattle
 Klipp, V. Pearl, UD, Ed.....Seattle
 Kirkendall, Wm S, UD, Bus.Wenatchee, Wn
 Kizer, Kenneth B, LD, Ed..Tacoma, Wash
 Kherstad, Clara A, Unc, FA.Canton, S.D.
 Klaus, Frederick F, UD, Ed.Chehalis, Wash
 Klippel, Fred C, Grad.....St. Paul, Nebr
 Knapp, B H H, Unc, Law.Davenport, Wash
 Knight, Nellie K, UD, Ed..Bellevue, Wash
 Knott, Anna C, LD, Sci.Walla Walla, Wash
 Knox, Esther V, Unc, FA.Cashmere, Wash
 Knudsen, Einar Mangnus, UD, Bus.....Seattle
 Knudson, Roy Greene, LD, Bus.....Seattle
 Knudson, Thelma, LD, Ed..Stanwood, Wash
 Koba, Tsuneyoshi, LD, Sci.....Japan
 Kobler, Anna, UD, Ed.....Seattle
 Koepke, Carolyn, LD, LA.....Seattle
 Kohnner, Frank F, Spec, Bus.Spokane, Wash
 Kongsle, Edward, UD, Bus.Pt Angeles, Wash
 Kraft, Warren E, LD, LA.....Seattle
 Kralouec, George I, Grad.....Auburn, Wash
 Kranklis, Milda, LD, LA.....Seattle
 Kratsch, Ida Rose, Spec, Sci..Mankato, Minn
 Kreamer, Lena, UD, Ed.....Seattle
 Kreisher, Harold C, LD, Bus Bremerton
 Krieger, George B, Fr, EE.....Seattle
 Krogstad, Elva, UD, LA.....Seattle
 Krogstad, Gladys, LD, LA.....Seattle
 Kronfield, Eugenia, Unc, Bus.....Seattle
 Kucera, John Paul, LD, Sci.....Lacey, Wash
 Kulhman, Rolland E, Unc, Ed..Edwall, Wash
 Kuller, Avis Myra, UD, Ed Davenport Wn
 Kundert, Gladys, Unc, LA.....Seattle
 Kurath, Ernest, LD, Sci..Milwaukee, Wis
 Kuwahara, Tosak Car, LD, Sci.....Japan
 Kwok, Ping-Chin, UD, Bus.....China
 La Bossier, Index Julianne, UD, Sci Kent
 Lafrance, Arthur C, LD, Bus..Hamilton, Mt
 Laigo, Fabio H, LD, Sci.....Philippines
 Lambert, Jean, Unc, LA.....Seattle
 Lamp, Granville W, Unc, Sci.Everett, Wash
 Land, Perry, Jr, Phar.....Seattle
 Lauderdale, Helen M, Grad.....Yakima, Wash
 Landsburg, Robert A, Jr, EE.....Seattle
 Lankenau, Walter Henry Jr, For.....Seattle
 Lapham, Margaret A, Unc, Ed.Tacoma, Wash
 Larsen, Bernard M, Grad..Hayward, Wis
 Larson, Elide G, UD, Ed.Crookston, Minn
 Larson, Hilda E, Unc, Ed.....Weston, Ore
 Larson, Luella Olaf, UD, LA.....Seattle
 Larson, Victor B, Grad..South Bend, Wash
 Lash, Frederick M, UD, LA.Stevenson, Wash
 Lash, Rae, Ed.....Stevenson, Wash
 Lathers, Olive G, Grad.....Ypsilanti, Mich
 Lausted, Alice, UD, Ed..Harlowton, Mont
 Law, Charles Harold, Spec.....Seattle
 Lawson, Annie S, LD, Ed.....Seattle
 Lawson, Maurice W, Grad..Blanchard, Wash
 Lawson, Ruth M, Grad..Blanchard, Wash
 Leather, Helen C, Unc, Ed..Burton, Wash
 Lechner, Leslie Ambrose, Grad.....Seattle
 Leckenby, Dorothy, LD, Sci.....Seattle
 Lee, Frank A, UD, Sci.....Seattle
 Lee, Juel Kuel Theodore, UD, Bus.....China
 Lefebvre, Almee, Unc, Ed.....Seattle
 Legg, Emily, UD, LA.....Seattle
 Legg, Lois Cornelia, Grad.....Seattle
 Leggett, Henry J, Grad.....Burton, Wash
 Lenington, Marcia Mae, Unc, Ed.....Seattle
 Lerner, Lyman, LD, Sci.....Seattle
 Lettrick, Leslie, Spec, Sci.....Seattle
 Levitin, Isaac, Eng.....Seattle
 Levy, Melvin P, LD, LA.....Seattle
 Lewis, Edna, LD, Bus..Fairbanks, Alaska
 Lewis, Ethol Iona, UD, FA.....Randle, Wash

Lewis, Pearl, Unc, LA.....Seattle
 Lewis, Rubin, Sr, MB.....Seattle
 Lightle, Cuthbert Otto, LD, Bus.....Seattle
 Likes, Myrton Dollard, UD, Sci.....Orting, Wash
 Lilly, Stella Audrie, Grad.....Tacoma, Wash
 Lin, Kimkok, Spec, Bus.....China
 Lin, Fu, LD, LA.....China
 Lind, Ralph Richard, Grad.....Elma, Wash
 Lindberg, Edward J, Spec.....Ellensburg, Wash
 Linderman, Olive, Unc, LA.....Bellingham, Wash
 Lindsey, Chas. A, LD, Bus.....Seattle
 Lisle, Mabel, LD, Ed.....Seattle
 Little, Dorothy Vernon, UD, Sci.....Seattle
 Littlefield, Dorothy Isabel, UD, LA.....Seattle
 Livesay, Thayne Miller, Grad.....Seattle
 Lloyd, Katherine, Soph, ChE.....Seattle
 Lockerby, Deslah, LD, LA.....Seattle
 Lockerby, McCarthy Frank, Journ.....Seattle
 Lockwood, Edna M, Dingee, UD, Ed.....Seattle
 Loe, Ralph Harvey, LD, Sci.....Seattle
 Loftfield, Gabriel, Grad.....Seattle
 Logan, Ettie, UD, Sci.....Portland, Ore
 Logan, Katharine C, LD, LA.....Boise, Ida
 Loisel, Odile, Unc, FA.....Seattle
 Lombardine, Herbert, LD, Bus.....Seattle
 Long, Agnes, UD, LA.....Seattle
 Long, Louise Lyons, LD, Bus.....Seattle
 Loughlen, Paul E, LD, Bus.....Puyallup, Wash
 Lovgrin, Elvey T, UD, Ed Pt Orchard, Wn
 Lowe, Benjamin F, UD, Ed.....Tacoma, Wash
 Lowman, James Guy, Spec, Ed.....Seattle
 Lowman, Vivien G, LD, LA.....Seattle
 Lucas, Ethel E, Unc, FA.....Seattle
 Luke, Dora M, Unc, Ed.....Great Falls, Mont
 Lund, John Grant, LD, LA.....Seattle
 Lundberg, Edwin, Unc, LA.....Seattle
 Lusby, Viola Jocelyn, Unc, FA.....Seattle
 Lycette, John P, LD, LA.....Spokane, Wash
 Lyman, Bosworth Anna, Unc, Sci.....Seattle
 Lyman, Keith A, Grad.....Gresham, Or
 Lynch, Julia, LD, LA.....Seattle
 Lyon, Paul L, Spec.....Spokane, Wash
 Lyons, May, UD, Ed.....Seattle
 Lyter, Dorothy, LD, LA.....Seattle
 Lyter, Helen Virginia, LD, LA.....Seattle

McAbee, Earl Whatmore, UD, LA.....Seattle
 McAllister, Josephine, UD, LA.....Seattle
 McAllister, Marion, Grad.....Seattle
 McAnally, Bonnie, LD, LA.....Yakima, Wash
 McAssey, Laura Joy, UD, Ed.....Seattle
 McBee, Alfred, LD, LA.....Seattle
 McBride, Kathleen, Unc, Sci.....Spokane
 McCabe, Clair, LD, Bus.....Seattle
 McCarthy, William George, Grad.....Seattle
 McCaughey, Douglas, LD, Bus.....Seattle
 MacClain, Albert Lewis, Grad.....Seattle
 McClellan, Harry Vincent, Grad.....Seattle
 McClinton, Harold L, LD, LA.....Seattle
 McClung, Ryland Eugene, 1st Law.....Seattle
 McConaughy, Alfred, Unc, Sci.....Walla Walla
 McCombe, Ruth Noyes, LD, Sci.....Seattle
 McCoy, Edward M, UD, LA.....Corbando
 McCoy, N C, Unc, Law.....Castle Rock, Wash
 McCrean, Mary H, Grad.....Spokane, Wash
 McCulloch, William, Grad.....Medbury, N.Dak
 McCullough, Ella Chatterton, Spec.....Seattle
 McCullough, Charles James, Spec.....Seattle
 McDonald, Charles J, Spec.....Yakima, Wn
 McDonald, Darel W, UD, Sci.....Spokane, Wash
 McDonald, Donald Trow, Fr, ME.....Seattle
 McDonald, E M, Unc, FA, Wilson Creek, Wash
 MacDonald, Gladys E, LD, Bus.....Seattle
 MacDonald, M R, LD, Ed.....Seattle
 MacDonald, Isabel R, LD, Ed.....Kent, Wash
 McDowell, Donald N, LD, Bus.....Seattle
 McDough, Otto George, Unc, LA.....Seattle
 McDougall, Emily Maude, Unc, FA.....Seattle
 McDougall, Mary I, LD, Ed.....Norman, Wash

McDowell, John Watson, LD, Sci.....Seattle
 McEuen, Marshall Lee, UD, Bus.....Seattle
 McGinness, Dorcas, Spec.....Seattle
 McGirr, Horace Donald, Grad.....Seattle
 McGivern, Margaret, LD, Ed.....Ontario, Or
 McGlashan, G, Spec, FA.....Big Piney, Wyo
 McGrew, E P, UD, Jour.....Seattle
 McHugh, Mary A, Unc, FA.....Spokane, Wash
 McIndoe, W C, Grad.....Portland, Or
 McIntyre, Harry, Grad.....Seattle
 McIntyre, Harry R, Spec, Bus.....Seattle
 McKay, Ellen Irene, Unc, Bus.....Mullan, Ida
 McKay, Dr J A, UD, Sci.....Seattle
 McKay, Preston Fraser, LD, LA.....Seattle
 McKenzie, C F, Spec, Bus.....Minneapolis, Minn
 McKim, Mrs M M, UD, Ed.....Bellingham, Wash
 MacKinnon, Marion Grace, Grad.....Seattle
 McKissick, Joe Carson, UD, Bus.....Wallace, Ida
 McLain, Ada Esco, UD, Ed.....Colton, Wash
 McLaughlin, Gay B, UD, Sci.....Seattle
 McLaughlin, Mary, Unc, Bus.....Seattle
 McLean, Winfield Angus, UD, Bus.....Seattle
 McLeod, Beatrice, Grad.....Seattle
 McLeod, Gladys Irene, UD, Bus.....Athena, Or
 McLeod, Nell, Unc, Ed.....Havre, Mont
 McLoney, Ella.....Portland, Or
 McMannus, G H, LD, Bus.....Vancouver, B C
 McManus, Edith M, Spec.....Vancouver, B C
 McMillan, Gregor M, LD, Bus.....Butte, Mont
 McMillin, Frederick, Grad.....Seattle
 McMillin, Harvey C, LD, Fish.....Seattle
 McMurphy, Susannah J, Grad.....Tacoma, Wash
 MacNaughton, Ellen, UD, Bus.....Seattle
 MacNicol, Anna, Unc, Ed.....Buckley, Wash
 McPherson, Mrs Anna, Spec.....Yakima, Wash
 McPherson, Joseph W, Grad.....Yakima, Wash
 McQuaid, Thelma A, LD, Sci.....Seattle
 McRae, Margaret A, Spec, Sci.....Seattle
 McWilliams, Alice B, Grad.....Seattle
 MacFarlane, Alan W, LD, Bus.....Seattle
 Machin, G L, Spec, Bus.....Bellingham, Wash
 Magill, Margaret, Grad.....Lisbon, N D
 Mahnke, Carl F, Unc, Sci.....Anaconda, Mont
 Mahoney, Vera, Grad.....Seattle
 Mahoney, Mrs Mary Elizabeth.....Seattle
 Malakoff, Abe, Fr, Phar.....Seattle
 Mallory, J A, LD, LA.....Silver Lake, Wash
 Mallory, M M, Ed.....Castle Rock, Wash
 Mallett, Isabelle, Unc, Sci.....Seattle
 Malloy, K J, UD, Ed.....Manette, Wash
 Manchester, Arie Rex, LD, Bus.....Seattle
 Mapes, Carl Herbert, UD, LA.....Seattle
 Marchand, Leslie Alexis, UD, LA.....Seattle
 Marino, Frank, LD, Fish.....Seattle
 Markham, Blanche Elaine, LD, Ed.....Seattle
 Markmen, Grace Kathleen, LD, LA.....Seattle
 Marquette, Elizabeth, Grad.....Seattle
 Marshall, Emily L, LD, Sci.....Portland, Or
 Marshall, Thomas, Unc, Law, Deming, Wash
 Marshall, Violet, UD, Ed.....Puyallup, Wash
 Martens, Aleda Laura, Fr, Phar.....Seattle
 Martin, Alvord, LD, Bus.....Seattle
 Martin, Eva Ednah, LD, Ed.....Seattle
 Martin, George Arthur, Grad.....Yakima, Wash
 Martin, Leore, UD, LA.....Mabton, Wash
 Martin, Marion Doris, Unc, LA.....Oreos, Wash
 Martin, Mary Geneva, UD, LA.....Seattle
 Martin, Norma V, Grad.....Davenport, Wash
 Mason, Lela Ernestine, UD, FA.....Seattle
 Mason, Irma Ruth, UD, LA.....Seattle
 Massie, Dorothy, Spec, LA.....Brewster, Wash
 Matheson, Jennie Rebecca, LD, Ed.....Seattle
 Matsen, Ida M, Unc, Ed.....Seattle
 Matson, Eleveda O, UD, Bus.....Edison, Wash
 Matsumura, Shigeo, LD, Bus.....Seattle
 Matthews, James T, Unc, Ed.....Salem, Or
 Mattoon, Edith Diana, Grad.....Beatrice, Neb
 Mattson, Nels E, Jr, EB.....Redmond Wash
 Maule Mabel, Grad.....Seattle
 Mauren, Signe Ery, Unc, Ed.....Seattle

- Maus, Mrs Mildred Palmer, Unc, Ed. Seattle
 Maxwell, Gertrude, Grad. Walla Walla, Wash
 Maxwell, Nelle, Spec, Sci. Shelton, Wash
 Maxwell, Willard, LD, Bus. Seattle
 Mayes, Evelyn, LD, Sci. Seattle
 Meacham, Edith, Grad. Seattle
 Meckatrot, Crl Wallace, LD, Bus. Seattle
 Medler, ouisa Adelaide, LD, Bus. Seattle
 Mahner, T M, LD, Ed. Bremerton, Wash
 Melsnest, Frederick H, UD, Fish. Seattle
 Melcher, Clara B, Unc, LA. Loomis, Wash
 Meldrum, Helen Scott, Grad. Spokane, Wash
 Mendenhall, Ethel, LD, LA. Oil Hill, Kan
 Mceneely, Alexander Howard, UD, LA. Seattle
 Mentzer, Cyrus J, LD, Ed. Tacoma, Wash
 Mercler, Jeanie Almee, Grad. Paris, France
 Merriam, Sherman Lee, UD, Ed. Seattle
 Merritt, Fred Warren, UD, FA. Seattle
 Metcalf, Gladys, Grad. Portind, Or
 Meyer, Ambrose J, UD, Sci. Lacey, Wash
 Meyer, Edward Albert, LD, Bus. Seattle
 Meyer, John D, Grad. Harrington, Wash
 Meyer, May E, UD, LA. Seattle
 Meyer, Walter Charles, Unc, Sci. Seattle
 Meyer, Walter T, Unc, Ed. Ferndale, Wash
 Michen, Marie Antoinette, Grad. Seattle
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 Middleton, Keth C, UD, Bus. Seattle
 Mielke, Freda, Spec, Sci. Swanville, Minn
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 Milan, Carey Harris, Unc, Ed. Porlsbo, Wash
 Miles, Mrs Cornelia S, Grad. Denver, Col
 Miles, Wilma Evelyn, Grad. Ontario, Or
 Miller, Chas John, UD, Bus. Seattle
 Miller, Mrs Elsie M, UD, Sci. Seattle
 Miller, Elveta Leone, UD, Ed. Seattle
 Miller, Ethel Adella, UD, Bus. Yakima, Wash
 Miller, Helen, Grad. Seattle
 Miller, Hermann B, UD, Bus. Spokane, Wash
 Miller, Max Carlton, LD, LA. Everett, Wash
 Miller, Roy Charles, 3rd Law. Seattle
 Miller, William M, Spec. Portland, Or
 Millett, Genevieve L, Unc, FA. Seattle
 Mills, Olive, Spec. Park River, N D
 Mills, Abble, B, Unc, Bus. Bellingham, Wash
 Milot, John A, LD, LA. Stockett, Mont
 Minnis, Marjorie Elizabeth, Grad. Seattle
 Minton, Harriet, Unc, LA. Seattle
 Mitchell, L Lillian, UD, Ed. Corwith, Iowa
 Mor, Harriett Ida, Unc, Sci. Tacoma, Wash
 Moe, Oley J, Spec, Bus. Bellingham, Wash
 Mohr, Esther, Grad. Seattle
 Monk, Edith May, Unc, Ed. Waterman, Wash
 Monro, Adell Bradir, Unc, LA. Seattle
 Montague, Frances, LD, Ed. Eberett, Wash
 Montangle, Vera Marie, UD, Ed. Seattle
 Montgomery, Edna M, Grad. Chinook, Mont
 Moore, Edmond S, Unc, Sci. Pullman, Wash
 Moore, Joseph R, UD, Ed. Sauk, Wash
 Moore, Lillie B, Spec, FA. Seattle
 Moore, Nina, Unc, Ed. Seattle
 Moors, Sybil Jane, Grad. Seattle
 Moran, Charles G, 2nd Law. Seattle
 More, David T, Unc, Ed. Tacoma, Wash
 More, Luther, LD, Ed. Tacoma, Wash
 Moreland, Mildred, UD, LA. Portland, Or
 Morgan, Miles, Grad. Seattle
 Morgan, Gwen, Spec, Sci. Seattle
 Morgan, Maye Katherine, Spec. Seattle
 Morris, Edna M, LD, Sci. Kettle Falls, Mont
 Morris, John Harwood, Jr, LD, Bus. Seattle
 Morris, John R, Spec, Bus. Spokane, Wash
 Morris, J M, Grad. Medical Lake, Wash
 Morris, M B, Unc, Sci. Medical Lake, Wash
 Morrison, Alice, Grad. Corallis, Ore
 Morrison, Mary Marln, UD, FA. Seattle
 Morrison, Millard C, UD, LA. Frankfort, Ind
 Morrison, Ruth Louise, UD, LA. Seattle
 Morrow, Cecil L, LD, Sci. Seattle
 Morrow, Leona Marie, UD, LA. Seattle
 Morse, Ralph, 3rd Law. Seattle
 Morton, Robin, LD, LA. Seattle
 Moser, Melitta C, LD, FA. DuPont, Wash
 Motz, August Joseph, Sr, EE. Seattle
 Mount, James N, UD, Ed. Kalama, Wash
 Mueller, Marguerite, UD, Sci. Seattle
 Muir, Anna-Mary, UD, Bus. Spokane, Wash
 Muir, Esther, Grad. Spokane, Wash
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 Murdock, Forrest G, Unc, LA, Wapato, Wash
 Murphy, Mary Ethel, LD, Sci. Seattle
 Murray, Charles, UD, Sci. Tacoma, Wash
 Murray, Jane Frances, LD, Winslow, Wash
 Murray, Mildred, UD, LA. Sandpoint, Ida
 Murray, Valois Agnes, LD, Bus. Seattle
 Murton, Clarence Charles, LD, LA. Seattle
 Mutch, Geneva, Unc, FA. Mauston, Wis
 Myer, Edna Margarite, Grad. Seattle
 Myers, Dicie Mildred, UD, Bus. Sumas, Wash
 Myers, Donald P, LD, Bus. Seattle
 Mylroie, Ruth, Grad. Kent, Wash
 Myron, Louise I, Unc, Ed. Stanwood, Wash
 Nagel, Julius A, Spec. Oak Harbor, Wash
 Nagle, Elizabeth, Spec. Yakima, Wash
 Nagle, Mary A, Unc, LA. Los Angeles, Cal
 Nagler, Russell A, UD, Sci. Yakima, Wash
 Nagley, John H, Spec, Ed. Eatonville, Wash
 Nason, Mae Blanch, LD, Sci. Walsenburg, Col
 Nave, Samuel A, Grad. Bellingham, Wash
 Neal, Russell Leroy, LD, Ed. Liberty Pa
 Neary, Raymond, LD, Sci. Lacey, Wash
 Neicken, Anna M, Unc, Ed. Portland, Or
 Neighbor, Emily, Grad. Seattle
 Neil, Delores Anne, UD, LA. Seattle
 Nelson, Eleanor, Unc, LA. Seattle
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 Nelson, Marie Leone, UD, Bus. Seattle
 Nelson, Hillard Ned, Soph. Che.
 Nelson, Thelma K, Unc, Bus. Wapato, Wash
 Ness, Nils Arthur B, Grad. Tacoma, Wash
 Nettleton, Lulle, Unc, Ed. Seattle
 Nettleton, Marie, Unc, Ed. Kirkland, Wash
 Newcomb, Wallace, Spec. Olympia, Wash
 Nichols, Harold, LD, Sci. Seattle
 Nicholson, Marion, Spec. Victoria, B C
 Nichio, Masao Frank, Soph, EE. Seattle
 Nishiwaki, Nobuo, Unc, LA. Japan
 Noble, Annabelle, Ed. Aberdeen, Wash
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 Nodle, Mary, Grad. Payette, Ida
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 Nolan, Michael John, Soph, CE. Seattle
 Nolan, Vincent, Spec. Seattle
 Noland, Frank H, Spec. Bremerton, Wash
 Norman, Mrs L C, Spec. Richmond Bch, Wash
 Norris, Grace, Unc, Ed. Burlington, Wash
 Norris, Ralph Hall, LD, Bus. Seattle
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 Olney, Mrs Bertha, Unc, FA. Seattle

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 Olsen, Franklin E, Unc, Bus. Tacoma, Wash
 Olson, Leah Ingeborg, Unc, LA. Tacoma, Wash
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 Olson, Irwin Stanley, Grad. Alberton, Mont
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 Olson, Raymond E, LD Sci. Boulder, Mont
 Olwell, Eugene Edward, LD, us.Seattle
 O'Neal, Harold Elmo, LD, Sci. Yakima, Wash
 O'Neill, Agnes V, UD, Ed.Spokane, Wash
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 Ong, Emma Zella, LD, FA.Seattle
 Oppen, Anna Marie, Unc, Ed.
 Orosa, Jose, LD, Bus.Philippines
 Orr, Paul J, UD, Ed.Redmond, Or
 Orr, Robert L, Spec, Eng.Portland, Or
 Osborn, Fern Marie, LD, FA. Gooding, Ida
 Osborn, Glenn J, Unc, Ed.Thorp, Wash
 Oscar, Orland A, LD, Bus.
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 Owen, Elizabeth Hayden P, Grad.Seattle
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 Patchell, Jewel, Grad.Pauls Valley, Okla
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 Scott, Elizabeth G., LD, LA. The Dalles, Ore
 Scott, Frank William, LD, Bus. Seattle
 Scott, Gertrude, Unc. Ed. S. Bellingham, Wash
 Scott, Harlon Helen, UD, Bus. Tacoma, Wash
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 Sellers, Ulrich Robert LD, Bus. Seattle
 Semon, Waldo Lonsbury, Grad.
 Sestak, Minnie, Grad. Victor, Mont
 Seymour, Phyllis C., Ed. Charleston, Wash
 Shank, Charles Howard, LD, Sci. Seattle
 Shanks, Marcus Mahlon, LD, Sci. Seattle
 Sharp, Mary Cortis, Spec. LA. Seattle
 Sharpe, Elton Dennis, Grad. Seattle
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 Shea, Ellen Mary, LD, LA. Spokane, Wash
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 Sheets, Lora C., UD, Ed. Lynden, Wash
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 Shelton, Marvin, Unc. Ed. Ellensburg, Wash
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 Sister, M. A., LD, LA. Walla Walla, Wash
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 Stone, Helen Morrill, Grad...Seattle
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 Van Brunt, Ella I. Cheney, Wash
 Vande B Guy H, Grad. Opportunity, Wash
 Van Deanter, R O, Unc, Jour. Seattle
 Van Duzee, J E, UD, LA. Seattle
 Van Eaton, Harold D, Olympia, Wash
 Vanlandingham, Irene, Ed. Kansas City, Mo
 Vannoy, Louise Hynes, UD, Ed. Seattle
 Van Orsdall, Miss Otis P, Unc, LA. Seattle
 Van Winkle, M L, Unc, LA, Spokane, Wash
 Van Zandt, Ruth, Unc, LA. Bellingham, Wash
 Vernon, Eleanor Eugenia, Grad.
 Vernon, Wm, Jr., Reg, Jour Wapato, Wash
 Vetting, I F, LD, Ed. Coeur D'Alene, Ida
 Vigfusson, Bertha, Unc Ed. Seattle
 Vinson, Willis Dals, Spec. Salem, Ore
 Vogel, Catherine, UD, LA. Tacoma, Wash
 Van Babo, Max Arthur, Fr, EE. Seattle
 Von Erickson, Lyle. Hilliard, Wash
 Voshelle, Lou Etta, LD, LA. Bucklin, Kan

Wafer, Mary Barbara, Unc, Ed. Seattle
 Walte, Netta Marguerite, Grad. Seattle
 Walnwright, Mary T, Grad. Tacoma, Wash
 Wakefield, Carol, UD, LA. Anacortes, Wash
 Walker, Ernest Kenneth, LD, Sci. Seattle
 Walker, Maude B, Unc, Ed. Seattle
 Walker, Roberta Louise, Unc, FA. Seattle
 Walker, William Burwell, LD, LA. Seattle
 Wall, Mrs Loula Asbury, Spec. Seattle
 Wallace, Cecil, Spec. Olympia, Wash
 Wallace, Mildred, Unc, Bus. Spokane, Wash
 Walsh, William Ray, Spec. Seattle
 Walter, Harold John, Unc, LA. Pueblo, Col
 Wang, Chen-Han, Spec, Bus. China
 Ward, Victor, LD, Bus. Sank Wash
 Warren Frank Furniss, Unc, LA. Seattle
 Warren, Paul Christopher, Grd. Seattle
 Wassberg, Clarence, Edw, Grad. Seattle
 Watkins, Inez, UD, Bus. Hoquiam, Wash
 Watson, Anna Elizabeth, Grad. Seattle
 Watson, Mrs Edith Cockrane, Spec. Seattle
 Watson, Elizabeth Davis, LD Sci. Seattle
 Watson, Eugenia, Unc, Ed. Paul, Ida
 Watson, George, Spec, Bus. Seattle
 Watson, William Harris, Jr, EE. Seattle
 Watt, Elsie, LD, Bus. Seattle
 Watt, James Graham, Soph, ME. Seattle
 Weage, Avery Dudley, Grad. Seattle
 Webb, Estelle Berkley, UD, Bus. Seattle
 Webster, Bethuel M, Jr, Unc, Denver, Col
 Welde, Ella Anna. Twin Bridges, Mont
 Weingarten, Harry, Spec. Seattle
 Weinzirl, Adolph, LD, Sci. Seattle
 Wendler, Erwin Arthur, Spec. Seattle
 Wouig, Edward, Grad. Creston, Wash
 Wentworth, Mrs. Mildred E, Spec. Seattle

Werner, Oscar B, LD, Bus. Seattle
 West, Alice, Spec. Fruitland, Ida
 Wester, Lucile, Spec. Fresno, Cal
 Westerberg, Imar S, Grad. Tacoma, Wash
 Westfall, Mrs Lenore, Spec. Seattle
 Weston, Nellie Charlotte, Livingston, Mont
 Wheaton, M E, UD, FA. Bellingham, Wash
 Wheeler, Chette May, Spec. Seattle
 Wheeler, Marshal Karl, Spec. Bus. Seattle
 Wheeler, Opal Irene, Unc, FA. Superior, Wis
 Wheelock, Ernest Eugene, Spec. Seattle
 Wheelon, Burton Jones, 1st Law. Seattle
 Whitacre, Paul, LD, Bus. Seattle
 Whitcomb, Alice E, UD, Ed. Seattle
 White, Alice C, Unc, LA. Kallispell, Mont
 White, Miss Carroll, Unc, Ed. Seattle
 White, Clara Anna. Yakima, Wash
 White, Eva May, LD, LA. Seattle
 White, Frances Caroline, UD, LA. Seattle
 White, Frances E, Unc, FA. Yakima, Wash
 White, Gladys M, UD, LA. Bellingham, Wash
 White, Mrs Lyda Arnold, UD, LA. Seattle
 White, Marie, LD, LA. Seattle
 Whitehead, Francis Virgil, UD, LA. Seattle
 Whiteneck, Hosea A, Grad. Panaca, Wash
 Whitney, Helen, Grad. Tacoma, Wash
 Whitney, Jessie Losey, Spec.
 Whittier, Lyman Kenyon, Unc, BA. Seattle
 Wied, Ida Carol, Grad. Waupaca, Wis
 Weinir, Isrel Taradai, LD, Sci. Seattle
 Wilby, Elsie Louise, Spec. Victoria, B C
 Wilby, William John, Grd. Victoria, B C
 Wiley, Wilmer Wayne, Fr, CB. Seattle
 Willard, Dudley W, Grad. Kent, Wash
 Willey, Viola, UD, Ed. Yakima, Wash
 Williams, Clara D, Unc, Sci. Tacoma, Wash
 Williams, Grace Myrtle, Spec. Portland, Or
 Williams, Mrs Mary L, LD, Ed. Seattle
 Williamson, Rupert W, Spec. Filer, Ida
 Willis, Arza McCellen, Grad. Naselle, Wash
 Willis, Cecil Durand, LD, LA. Seattle
 Wilson, Emma, Spec, Ed.
 Wilson, Frances Imogen, UD, LA. Seattle
 Wilson, Grace, LD, LA. Seattle
 Wilson, Lena Eveline, Grad. Seattle
 Wilson, Mazie, LD, LA. Seattle
 Winchester, Jessie H, Grad. Yakima, Wash
 Windhusen, A E, UD, Ed. Medical Lake, Wash
 Winnihoff, F L, LD, Sci. Phillipsburg, Mont
 Winston, James Carey, Unc, Bus. Seattle
 Winwood, Ralph Farrel, LD, Bus. Seattle
 Wise, Robert S, LD, LA. Seattle
 Wisen, Byron F, LD, YA. Seattle
 Woelberg, Harry John, Sr, Mines. Seattle
 Woelfel, Lucy Marjory, UD, Sci. Seattle
 Woerner, Inez Estelle, UD, LA. Boise, Ida
 Wolfe, John Brown, LD, Bus. Tacoma Wash
 Wolfe, Walter H, Ed. Weiser, Ida
 Wollum, B A, LD, LA. New Richmond, Wis
 Wong, Frank Su-tung, LD, Bus. Seattle
 Wood, Arthur Grade, UD, Bus. Payette, Ida
 Wood, Harold S, LD, Bus. Dupont, Wash
 Woods, Katherine, Unc, Bus. Seattle
 Woods, William, Grad. Vancouver, B C
 Woodward, Harriett, Grd. Seattle
 Woodward, S A, Unc, LA. Granite Falls, Wash
 Worsham, Aurelia, LD, LA. Seattle
 Worthen, Clifton Boyd, Grad. Lynden, Wash
 Worthley, Chas Bond, JR, Eng Tacoma, Wn
 Wright, Helen, Unc, LA. Seattle
 Wright, Jack Willis, LD, LA. Tacoma, Wash
 Wright, Jasper C, UD, Ed. Seattle
 Wright, Lynn, Unc, Ed. Edmonds, Wash
 Wright, May M, Unc, FA. Eatonville, Wash
 Wright, Nancy Grace, Unc, Ed. Montrose, Ia
 Wright, Parke A, UD, Ed. Prosser, Wash
 Wrighter, Helen T, LD, Ed. Yakima, Wash

Yates, Dewey, LD, Bus. Seattle
 Ybojos, Marcelino, Unc, Bus. Philippines

Yenney, Anne Gertrude, Unc, Ed....Seattle
 Young, Arthur B, LD, Bus....Stanwood, Wash
 Young Carolyn S, Unc, Ed....Yakima, Wash
 Young Mae Adeline Unc, Bus....Astoria, Or
 Young, Wesley George, Grad.....Seattle

Young, William W, UD, Ed....Renton, Wash
 Zee, Chung, LD, Bus.....
 Zener, Carlos Ralph, UD, Bus.....
 Zimmerman, Chloë Anice, Grad.Sapulpa, Okla

PUGET SOUND BIOLOGICAL STATION—1921

Allinder, Clara F.....Seattle
 Angst, Laura.....Kapowsin
 Blanchard, Mary E.....Seattle
 Cartar, Mary F.....Elma
 Chambers, Mary H.....Eugene, Or
 Cunningham, Zelda F.....Seattle
 Daugherty, Anna M.....Seattle
 Dickey, Lloyd B.....Minneapolis, Minn
 Dvorcuf, Hannah.....Pocatello, Ida
 Elloit, Theodore S.....Portland, Or
 Estep, Amy J.....Seattle
 Feelhaver, Carl T.....Lincoln, Nebr
 Goodlander, Millicent.....Portland, Ore
 Gunlaugson, Grace.....Minneapolis, Minn
 Halleck, Daisy T.....Newport, Ore
 Heatherington, Duncan O.....Urbana, Ill
 Horning, Benjamin.....Eugene, Or
 Hoskins, J Hobart.....Whittier, Cal
 Howard, Grace E.....Seattle
 Hurley, Colla.....Normal, Ill
 McCarthy, Julia.....Seattle
 McLean, Arthur J.....Portland, Or
 Mickels, Nicholas A.....Minneapolis, Minn
 Mullen, Doris.....Seattle

Norrington, Annie.....Edmonton, Alta
 Park, Helen.....Altowa, Kan
 Park, Marie.....Altowa, Kan
 Patterson, Olive E G.....Everett
 Patterson, Rachel E.....Everett
 Pelluet, Dixie.....Edmonton, Alta
 Pepper, Echo D.....Seattle
 Plympton, Alice B.....Portland, Ore
 Rankin, Oscar H.....Moscow, Ida
 Reuter, Alexia.....Seattle
 Rowles, Emmett.....Minneapolis, Minn
 Smith, Catharine W.....Puyallup
 Snooks, Harry B.....Stockton, Cal
 Stewart, Emma Jo.....Portland, Ore
 Thomas, Lyell J.....Urbana, Ill
 Thompson, David H.....Urbana, Ill
 Towler, E D.....LeGrande, Or
 Tweeddale, Martha.....Minneapolis, Minn
 Warner, Edith Ruth.....Seattle
 Warner, William R.....Seattle
 Wells, Wayne W.....Marshfield, Or
 Wentworth, Margaret.....Seattle
 Young, Dorothy.....Seattle

SHORT COURSE IN FISHERIES—1922

Ausman, Joseph M.....Seattle
 Burr, J B.....New Westminster, B C
 Casperson, Newt.....Ketchikan, Alaska
 Dybwad, Peter F.....Seattle
 Green, P H.....Burton
 Halleran, Martin P.....Seattle
 Halvorson, Louis K.....Sulzer, Alaska
 Hansen, Karl A S.....Seattle
 Hansen, Magnus.....Juneau, Alaska

Hofstad, Ottar.....Seattle
 Kelly, Ira W.....Seattle
 Lee, Sigurd S.....Seattle
 Lysnes, Joseph M.....Seattle
 MacKenzie, J A.....Vancouver B C
 Norman, George.....Seattle
 Olsen, John Bernard.....Nome, Alaska
 Rosenberg, Einar.....Seattle

SHORT COURSE IN FORESTRY—1922

Berry, Carl M.....Seattle
 Brokenshire, Wesley J.....San Jose, Cal
 Chadwick, Fred S.....Victoria, B C
 Goodwillie, H B.....Portland, Or
 Lawler, James.....Vancouver B C
 Lulgate, Robert.....Leavenworth
 Manson, A Earl.....Seattle

Meigs, Samuel G.....Yakima
 Overton, Herbert E.....Olympia
 Palethorpe, G G.....Nelson, B C
 Wright, George R.....Chelan
 Waddington, Arthur H.....Nanaimo, B C
 Younle, John.....Vancouver, B C

WINTER MINING SESSION—1922

Anderson, Hjalmar A.....Seattle
 Brown, Marshall W.....Seattle
 Costello, Robert C.....Independence, Kan
 Culver, Ernest G.....Elbe
 Elder, Robert A.....Miles City, Mont
 Eyerdam, Herbert.....Seattle
 Geringer, John C.....Seattle
 Griffin, Ross A.....Seattle
 Johnson, Frederick R.....Seattle

Kern, Frank J.....
 Lottsfeldt, Ernest T.....Seattle
 Paschall, Benjamin S.....Seattle
 Peterson, Karl.....Seattle
 Prescott, J H.....Seattle
 Rees, David.....Seattle
 Stewart, Horatio Albert.....Seattle
 Taylor, Martin S.....Weiser, Ida
 Teig, Clifford.....Seattle

SUMMARY OF ENROLLMENT 1921-1922

BY SCHOOLS AND COLLEGES

SCHOOLS AND COLLEGES	SUMMER QUARTER			AUTUMN QUARTER	WINTER QUARTER	SPRING QUARTER	TOTAL
	1st T.	2nd T.	TOTAL				
	1	2	3	4	5	6	7
Graduate	301	234	345	101	185	187	247
Men	129	126	152	103	100	100	144
Women	172	108	193	88	85	87	103
Liberal Arts	339	282	375	1150	1221	1195	1388
Men	103	99	125	394	428	417	499
Women	236	183	250	762	798	748	889
Science	234	222	245	503	494	485	571
Men	96	92	99	190	204	209	249
Women	138	130	146	313	290	276	322
Bus. Adm.	305	275	307	1086	1135	1038	1283
Men	247	228	248	923	960	893	1102
Women	58	47	59	163	160	145	181
Education	327	245	377	204	232	208	266
Men	110	100	117	48	51	43	59
Women	217	145	260	156	181	163	207
Engineering	72	70	74	643	675	586	748
Men	72	70	73	642	674	585	746
Women			1	1	1	1	2
Fine Arts	101	88	102	337	347	317	392
Men	9	9	9	53	61	58	72
Women	92	79	93	284	286	259	320
Fisheries	8	8	8	21	35	21	30
Men	7	7	7	21	35	21	30
Women	1	1	1				
Forestry	5	4	5	102	134	100	119
Men	5	4	5	101	134	99	118
Women			1	1	1	1	1
Journalism	13	12	13	31	29	24	33
Men	5	4	5	18	20	16	20
Women	8	8	8	13	9	8	13
Law	51	51	52	137	131	126	138
Men	49	49	50	131	125	119	131
Women	2	2	2	6	6	7	7
Library Sci.	4	3	4	8	10	4	11
Men				2	1	1	2
Women	4	3	4	6	9	3	9
Mines	7	7	7	70	83	54	73
Men	7	7	7	70	83	54	73
Pharmacy	15	12	16	107	98	99	111
Men	12	9	12	72	66	69	76
Women	3	3	4	35	27	30	35
Total	1782	1513	1930	4596	4804	4412	5410

NOTE.—Columns 1, 2, 4, 5, and 6 represent census figures—i.e. the enrollment taken on a stated day within the first month of a term or quarter. Columns 3 and 7 show figures representing the number of individuals; column 3 the number registered during the summer quarter, column 7 the number registered during the regular academic year. For comparison with other institutions the figures in columns 3 and 7 should be used, as these are the customary catalogue figures.

SUMMARY OF ENROLLMENT

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SUMMARY OF ENROLLMENT 1921-1922

BY CLASSES

CLASSES	SUMMER QUARTER			AUTUMN QUARTER	WINTER QUARTER	SPRING QUARTER	TOTAL
	1st T.	2nd T.	TOTAL				
	1	2	3	4	5	6	7
Graduates ----	301	234	345	191	185	187	247
Men -----	129	126	152	103	100	100	144
Women -----	172	108	193	88	85	87	103
Seniors ----	287	271	314	495	661	704	822
Men -----	136	137	150	271	345	379	457
Women -----	151	134	164	224	316	325	365
Juniors ----	350	351	448	886	928	919	1100
Men -----	160	180	176	531	557	570	655
Women -----	190	171	272	355	371	349	445
Sophomores --	337	261	358	1179	1372	1192	1414
Men -----	191	161	197	749	880	747	907
Women -----	146	100	161	430	492	445	507
Freshmen ----	335	289	259	1691	1465	1232	1599
Men -----	145	112	131	1015	890	724	958
Women -----	190	127	128	676	575	508	641
Specials ----	172	157	206	154	193	178	228
Men -----	90	88	103	137	179	164	200
Women -----	82	69	103	17	14	14	28
Total -----	1782	1513	1930	4596	4804	4412	5410

TOTAL STUDENTS IN RESIDENCE

During regular academic year-----	5410
During summer quarter-----	1930
	7340
Deduct summer quarter duplicates-----	709
	6631

EXTENSION STUDENTS

Correspondence -----	553
Men -----	218
Women -----	340
Extension Classes -----	1048
Men -----	310
Women -----	738
Total Extension -----	1601

NOTE.—The Extension Service enrolls students at any time during the twelve months. The figures given indicate the number actually studying by correspondence, or in extension classes during some part of the year beginning July 1, 1921.

NOTE.—Columns 1, 2, 4, 5, and 6 represent census figures—i.e. the enrollment taken on a stated day within the first month of a term or quarter. Columns 3 and 7 show figures representing the number of individuals; column 3 the number registered during the summer quarter, column 7 the number registered during the regular academic year. For comparison with other institutions the figures in columns 3 and 7 should be used, as these are the customary catalogue figures.

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