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WALLA

COLLEGE

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American Council on Education

National Commission on Accreditation

**is approved by**

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The Attorney General of the United States for nonimmigrant students

Washington State for training in Vocational Rehabilitation

## FOR INFORMATION

For general information, bulletins, application blanks, viewbooks, student handbooks, etc., write

The registrar

Concerning work, financial arrangements, and apartments, write

Finance Counseling Office

Concerning room reservations and other matters of residence, write

The Dean of Men or

The Dean of Women

WALLA WALLA COLLEGE

College Place, Washington

Telephone:

Walla Walla

JACKSON 5-7560

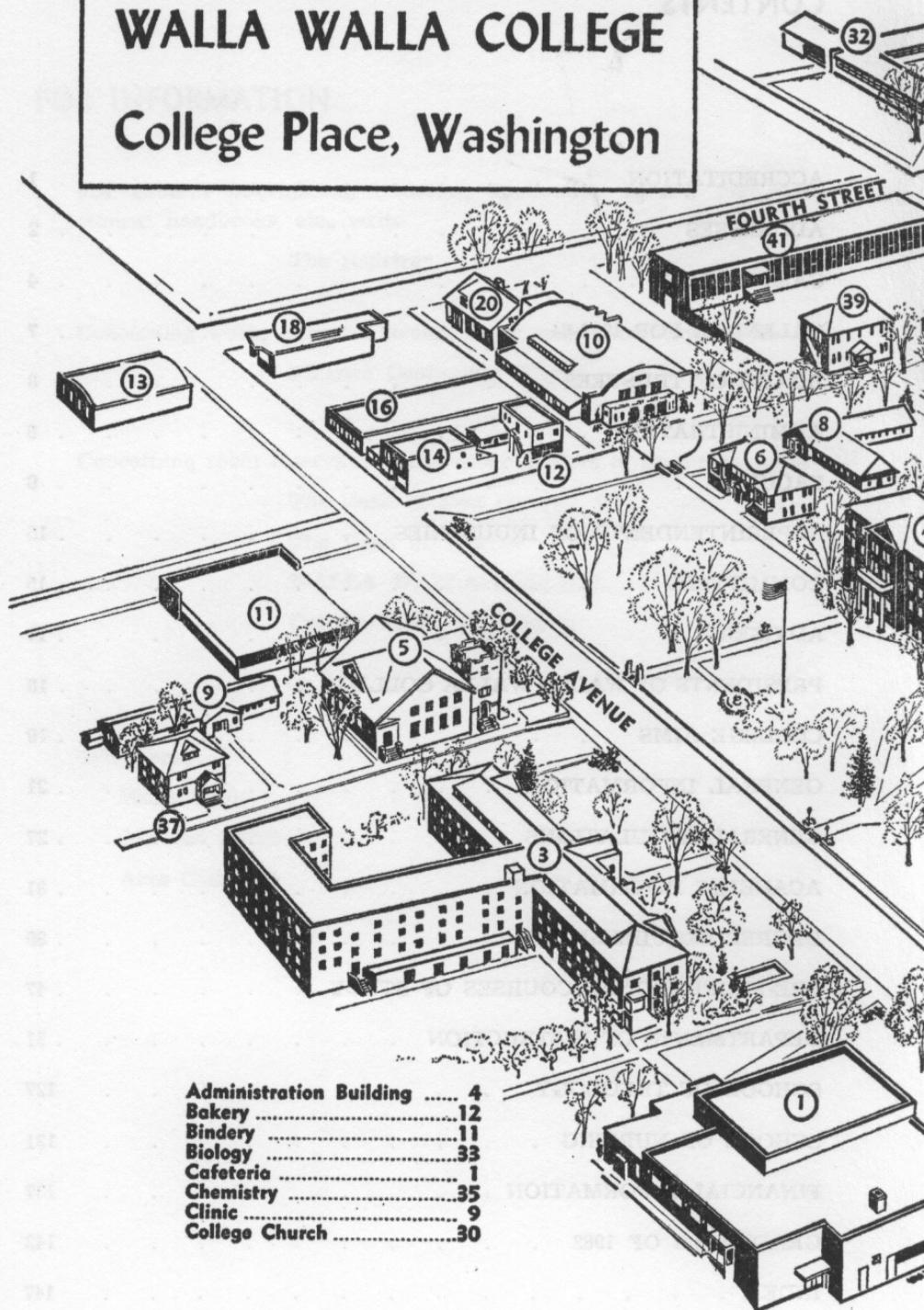
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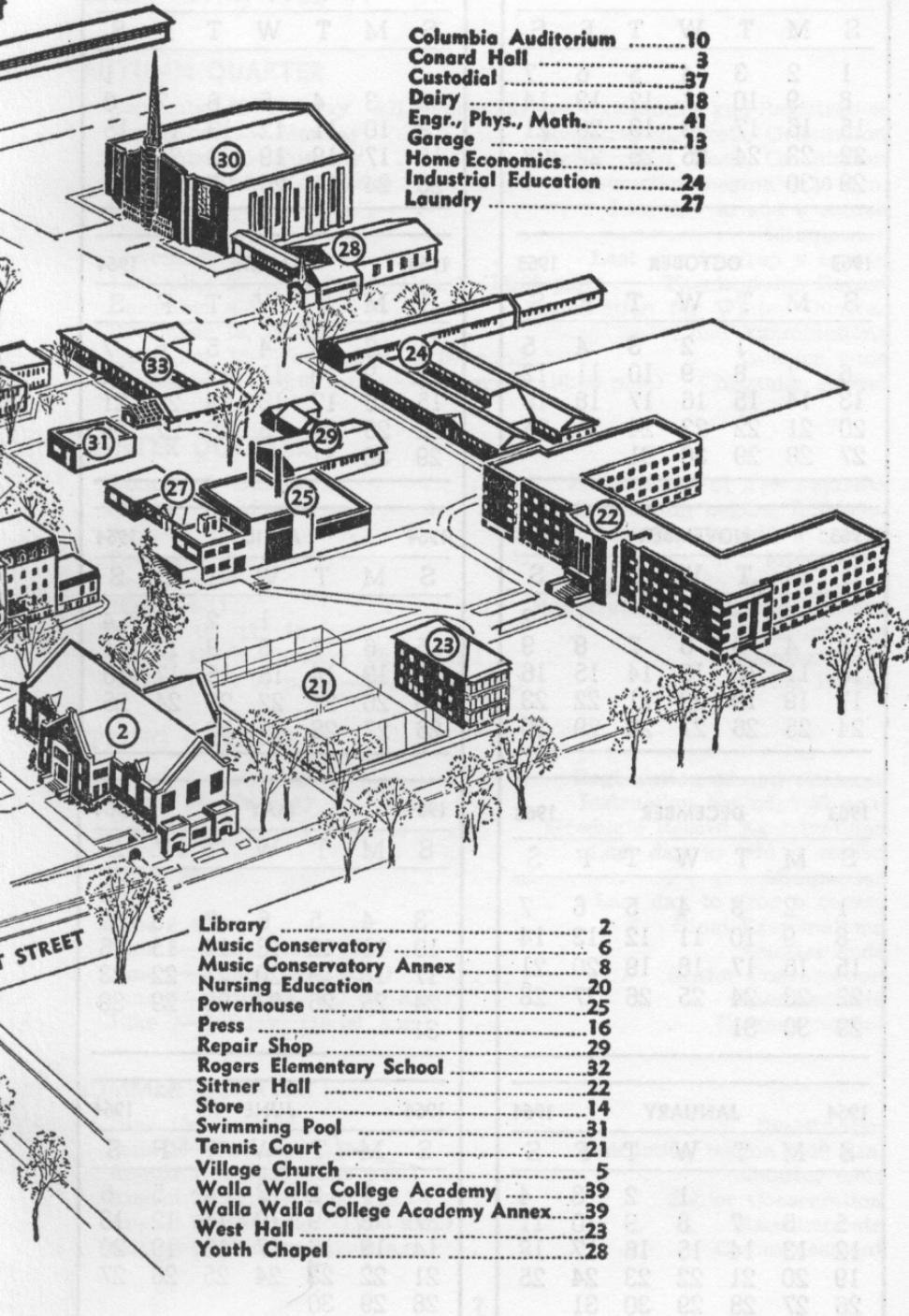
## CONTENTS

ACCREDITATION	1
ADDRESSES	2
CAMPUS MAP	4
CALENDAR FOR 1963-64	7
BOARD OF TRUSTEES	8
ADMINISTRATION	8
FACULTY	9
SUPERINTENDENTS OF INDUSTRIES	15
COMMITTEES	15
ADVISERS	17
PRESIDENTS OF WALLA WALLA COLLEGE	18
COLLEGE AIMS	19
GENERAL INFORMATION	21
GENERAL REGULATIONS	27
ACADEMIC INFORMATION	31
DEGREE REQUIREMENTS	39
PRE-PROFESSIONAL COURSES OF STUDY	47
DEPARTMENTS OF INSTRUCTION	51
SCHOOL OF THEOLOGY	127
SCHOOL OF NURSING	131
FINANCIAL INFORMATION	137
GRADUATES OF 1962	143
INDEX	147

# WALLA WALLA COLLEGE

College Place, Washington





## 1963 SEPTEMBER 1963

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## 1964 MAY 1964

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## 1964 JUNE 1964

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# CALENDAR, 1963-64

MOFTARTZININGA

## AUTUMN QUARTER

September 22—Sunday	All students arrive, Orientation and Registration
September 23—Monday	Registration, Tests, Orientation
September 24—Tuesday	Registration, Tests, Orientation
September 25—Wednesday	Instruction begins, 7:30 a.m.
October 9	Last day to add a course
October 29	Midquarter
November 6	Last day to drop a course
November 27 (1:00 p.m.)—Dec. 1 (10:00 p.m.)	Thanksgiving Recess
December 4-11	Registration for Winter Quarter
December 16, 17, 18	Final Examinations
December 18—Wednesday (6:00 p.m.)	Quarter ends
December 18—(6:00 p.m.)—January 5 (10:00 p.m.)	Christmas Recess

## WINTER QUARTER

January 5—Sunday	Registration of new students
January 6—Monday	Instruction begins, 7:30 a.m.
January 17	Last day to add a course
February 6	Midquarter
February 19	Last day to drop a course
March 4-11	Registration for Spring Quarter
March 16, 17, 18	Final Examinations
March 18—Wednesday (6:00 p.m.)	Quarter ends
March 18 (6:00 p.m.)—23 (10:00 p.m.)	Spring Recess

## SPRING QUARTER

March 23—Monday	Registration of new students
March 24—Tuesday	Instruction begins, 7:30 a.m.
March 30, 31	Graduate Record Examinations
April 8	Last day to add a course
April 28	Midquarter
May 6	Last day to drop a course
June 2, 3, 4	Final Examinations
June 5—Friday (6:00 p.m.)	Quarter ends
June 5—Friday (8:00 p.m.)	Senior Consecration
June 6—Saturday (11:00 a.m.)	Baccalaureate
June 7—Sunday (10:00 a.m.)	Commencement

## SUMMER QUARTER

June 15—Monday	Registration
June 16—Tuesday	Instruction begins, 7:30 a.m.
August 7—Friday (6:00 p.m.)	Quarter ends
August 7—Friday (8:00 p.m.)	Senior Consecration
August 8—Saturday (11:00 a.m.)	Baccalaureate
August 9—Sunday (10:00 a.m.)	Commencement

# ADMINISTRATION

## BOARD OF TRUSTEES

C. A. SCRIVEN, <i>President</i>	L. W. CROOKER	C. J. NAGELE
P. W. CHRISTIAN, <i>Secretary</i>	N. R. DOWER	J. T. PORTER
A. W. SPOO, <i>Treasurer</i>	A. J. GORDON	E. E. RIPPEY
E. E. BIETZ	CLYDE HARRIS	H. C. RHODES
J. W. BOTHE	E. S. HUMANN	H. L. RUDY
C. M. BUNKER	G. W. LISCOMBE	

## OFFICERS OF ADMINISTRATION

PERCY W. CHRISTIAN, PH. D.	President of the College
ROBERT H. BROWN, PH. D.	Vice President
HANS L. RASMUSSEN, ED. D.	Academic Dean
THOMAS W. WALTERS, ED. D.	Dean of Students
ARTHUR W. SPOO, B. S.	Business Manager
ORPHA N. OSBORNE, B. A.	Registrar
LENOA PEEBLES SILVER, M. L.	Librarian
PAUL C. HEUBACH, M. A.	Chaplain
M. S. CULVER, M. A.	Dean of Men
HELEN WARD EVANS, M. A.	Dean of Women
GORDON S. BALHARRIE, B. D.	Dean, School of Theology
WILMA L. LEAZER, R. N., M. S.	Dean, School of Nursing

## ASSOCIATES IN ADMINISTRATION

KATHRYN ANDREWS, B. A.	Assistant Registrar
MARGUERITE SHOPSHIRE APLINGTON, B. A.	Accountant
IRENE T. BLACK, B. A.	Teacher Certification Counselor
ALBERT BUTHERUS, M. A.	Principal, Rogers Elementary School
SANDRA CLOUGH, B. A.	Library Assistant
KENNETH E. GROVES, M. A.	Assistant Business Manager
MAE MACKLIN LAY, B. A.	Public Relations Secretary
GENEVIEVE ILES MCCORMICK, B. A.	Assistant Dean of Women
MARIE MCNIEL	Dean of Women, Clinical Division
ELSIE NAWALKOWSKI, B. A.	Assistant Dean of Women
HOWARD I. OSBORNE, M. D.	College Physician, Clinical Division
JOHN E. POTTS, M. D.	College Physician
GERTRUDE V. PYKE, M. L.	Librarian and Registrar, Clinical Division
MYRTLE E. ROWSE, M. A.	Assistant Librarian
HAROLD D. SCHWARTZ, M. A.	Principal, Walla Walla College Academy
J. RANDALL SLOOP, M. Ed.	Director of Student Finance
WILMER SNYDER, B. A.	Director of Food Service
GROVER L. STARR, B. S. IN ENGINEERING	Architect
GRACE STODDARD, R. N., B. S.	Director of Health Service, Clinical Division
HELEN STRUTZ, R. N., M. A.	Director of Health Service
JOY UEHLIN, B. A.	Assistant Librarian
NORMAN WOODS, B. A.	Assistant Dean of Men

# THE FACULTY

## PROFESSORS EMERITI

### ALCOCK, HERBERT J., Emeritus Professor of Religion

B. A., 1927, B. Th., 1927, Emmanuel Missionary College; M. A., 1942, Michigan State University

### BOWERS, GEORGE W., Emeritus Professor of Chemistry

B. A., 1917, Union College; M. A., 1924, Ph. D., 1935, University of Nebraska; LL. D., 1956, Walla Walla College

### LOSEY, LEON B., Emeritus Professor of Agriculture

B. A., 1921, Walla Walla College; M. S., 1939, Oregon State College

### MILLER, LULU HILL, Emeritus Professor of Art

### SMITH, WALTER L., Emeritus Professor of Education

B. A., 1911, Union College; M. S., 1917, Whitman College; Ed. D., 1934, George Washington University; LL. D., 1957, Walla Walla College

### WESTERMAYER, HARRY E., Emeritus Professor of History

B. A., 1917, Clinton Theological Seminary; M. A., 1934, College of the Pacific; Ph. D., 1946, Stanford University

## PROFESSORS

### AFLINGTON, KENNETH A., Professor of English

B. A., 1935, Walla Walla College; M. A., 1942, University of Washington

### BALHARRIE, GORDON S., Professor of Religion

B. A., 1945, Columbia Union College; M. A., 1949, B. D., 1960, Theological Seminary, Andrews University

### BROWN, ROBERT H., Professor of Physics

B. A., 1940, Union College; M. S., 1942, University of Nebraska; Ph. D., 1950, University of Washington

### CHAMBERS, JAMES R., Professor of Chemistry

B. A., 1939, Columbia Union College; M. S., 1949, Western Reserve University; Ph. D., 1958, Agricultural and Mechanical College of Texas

### CHRISTIAN, PERCY W., Professor of History

B. A., 1926, Broadview College; B. S., 1928, Lewis Institute; M. A., 1929, Ph. D., 1935, Northwestern University

### COFFIN, HAROLD G., Professor of Biology

B. A., 1947, M. A., 1952, Walla Walla College; Ph. D., 1955, University of Southern California

### CROSS, EDWARD F., Professor of Engineering

M. E., 1929, Stevens Institute of Technology; M. A., 1938, Columbia University; P. E., 1948, Washington, 1952, Oregon

### HAFNER, JOHN J., Professor of Music

B. A., 1941, Emmanuel Missionary College; M. Mus., 1949, Chicago Musical College

### HANSON, FREDRICK R., Professor of Nursing

R. N., 1930, Mason Memorial Hospital; B. A., 1932, Walla Walla College; M. A., 1942, University of Washington

### HEUBACH, PAUL C., Professor of Religion

B. A., 1935, Pacific Union College; M. A., 1944, Theological Seminary, Andrews University

### JONES, CARL T., Professor of Chemistry

B. A., 1933, Columbia Union College; M. S., 1939, Catholic University of America; Ph. D., 1959, Oregon State College

### LEAZER, WILMA L., Professor of Nursing

R. N., 1944, Portland Sanitarium and Hospital; B. S. Nursing Education, 1947, Columbia Union College; M. S., 1958, Loma Linda University

### LITKE, RICHARD L., Professor of Biblical Languages

B. A., 1948, Walla Walla College; B. A., 1953, M. A., 1953, University of California; Ph. D., 1959, Yale University

**MECKLING, FRANK E., Professor of History**

B. A., 1929, Columbia Union College; M. A., 1931, University of Maryland; Ph. D., 1950, University of California at Los Angeles

**RASMUSSEN, HANS L., Professor of Education**

B. A., 1937, Emmanuel Missionary College; M. A., 1943, University of Michigan; Ed. D., 1946, Stanford University

**RHODES, J. WESLEY, Professor of Education**

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**SILVER, ROBERT E., Professor of Education**

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**TRAUTWEIN, CALVIN L., Professor of Industrial Education**

B. A., 1945, La Sierra College; B. S., 1950, Pacific Union College; Ed. M., 1955, Oregon State College; Ed. D., 1962, Colorado State College

**WEST, MELVIN K., Professor of Music**

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B. S., 1952, Walla Walla College; M. S., 1956, State College of Washington; Ph. D., 1960, Washington State University

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B. A., 1956, Honours B. A., 1959, University of South Africa

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B. A., 1948, Atlantic Union College; M. A., 1953, Boston University

**OWEN, BLYTHE, Associate Professor of Music**

B. M., 1941, Chicago Musical College; M. M., 1942, Northwestern University; Ph. D., 1953, Eastman School of Music of the University of Rochester

**PENNER, JONATHAN G., Associate Professor of Speech**

B. A., 1944, Emmanuel Missionary College; M. S., 1958, Ph. D., 1962, Purdue University

**PETERS, J. V., Associate Professor of Education**

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B. A., 1943, Pacific Union College; M. S., 1951, University of Southern California

**SCHLÖTTHAUER, LILAH GODFERY, Associate Professor of Mathematics**

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## ASSISTANT PROFESSORS

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**RITER, E. JOYCE**, Instructor in Pediatric Nursing

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\*Leave of absence current year.

**\*ROY, CECIL, Instructor in Education**  
B. A., 1958, Walla Walla College

**RUSSELL, L. E., Instructor in Religion**  
B. S., 1949, Union College; M. A., 1960, University of Oregon

**SCOTT, HARRYETTE, Instructor in Diet Therapy**  
B. S., 1942, Loma Linda University; A. D. A., 1943, American Dietetic Association

**SLOOP, J. RANDALL, Instructor in Business**  
B. S., 1954, Union College; M. Ed., 1956, University of Idaho

**STAHLNECKER, ROBERT E., Instructor in Education**  
B. Th., 1950, Walla Walla College; M. A., 1960, Eastern New Mexico University

**WAGNER, ORVIN, Instructor in Physics**  
B. A., 1953, B. S., 1959, Walla Walla College

**WILSON, LOIS R., Instructor in Pediatric Nursing**  
B. A., 1961, Walla Walla College

## ASSISTANTS IN CLINICAL INSTRUCTION

**CREITZ, NONDUS, Assistant Director Nursing Service**  
R. N. Diploma, 1946, Portland Sanitarium and Hospital

**CROSS, AMELIA, Assistant Director Nursing Service**  
R. N. Diploma, 1945, Portland Sanitarium and Hospital

**KANDT, ESTHER, Supervisor Obstetrical Department**  
R. N. Diploma, 1950, Glendale Sanitarium and Hospital; B. S., 1953, Pacific Union College

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R. N., 1941, Mountain Sanitarium and Hospital

**MILLER, PHYLLIS E., Supervisor Operating Room**  
R. N., B. S., 1952, Walla Walla College

**NULL, CHARLES, Assistant Director Nursing Service**  
R. N., B. S., 1953, M. A., 1959, Walla Walla College

**RAWSON, SHARON, Supervisor Pediatric Department**  
R. N., B. S., 1956, Walla Walla College

**SCHERESKY, GRACE, Director Nursing Service**  
R. N., 1949, Portland Sanitarium and Hospital; B. S., 1954, University of Oregon; M. S., 1961, Loma Linda University

## STAFF LECTURERS

**ALLEN, G. W., F.A.C.S., L.M.C.C., Lecturer in Diseases of the Eye**  
M. D., Loma Linda University  
Diploma of Ophthalmology, University of London  
M. C. P. & S., Manitoba, Saskatchewan, Canada

**BEGG, R. E., F.A.C.S., Lecturer in Orthopedics**  
M. D., University of Oregon Medical School  
Certification by the American Board of Orthopedic Surgery

**GARDNER, J. SCOTT, Lecturer in Urology**  
M. D., Cornell University Medical School  
Certification by the American Board of Urology

**JORDAN, L. W., Lecturer in Diseases of the Ear, Nose, and Throat**  
M. D., University of Oregon Medical School  
Certification by the American Board of Otolaryngology

**NOALL, LAWRENCE, F.A.C.S., Lecturer in Orthopedics**  
M. D., Northwestern University Medical School  
Certification by the American Board of Orthopedics

\*Leave of absence current year.

## WALLA WALLA COLLEGE ACADEMY SUPERVISORY TEACHERS

**SCHWARTZ, HAROLD D.**, Principal

B. B. A., 1941, M. A., 1951, Walla Walla College

**SORENSEN, N. CLIFFORD**, Vice Principal and Supervisor in Science

B. S., 1958, Walla Walla College

**BIGHAM, ERVIN H.**, Registrar and Supervisor of Testing

B. A., 1952, Walla Walla College

**EDSTROM, EDWARD**, Supervisor in Mathematics

B. A., 1936, Walla Walla College

**GOLLES, EUGENE H.**, Supervisor in English

B. A., 1953, M. A., 1959, Los Angeles State College

**GORDON, PAUL**, Chaplain and Supervisor in Religion

B. Th., 1952, M. A., 1962, Walla Walla College

**GROVES, ELLA-BELLE SARGEANT**, Librarian

B. A., 1934, Walla Walla College

**HOOPER, IRMGARD SIEMSEN**, Supervisor in Modern Languages

B. A., 1944, Walla Walla College

**MECKLING, KATHERINE LUTZ**, Supervisor in Home Economics

B. A., 1931, Union College

**TININENKO, ROBERT**, Supervisor in Social Studies

B. A., 1961, Walla Walla College

**TYM, PETER C.**, Supervisor in Mathematics

B. A., 1955, Pacific Union College; M. A., 1960, San Fernando Valley State College

**VAN TASSEL, DONALD**, Supervisor in Biology

B. A., 1950, M. A., 1960, Walla Walla College

**WEAVER, HORACE E.**, Supervisor in Religion

B. A., 1923, Emmanuel Missionary College; M. A., 1945, Theological Seminary, Andrews University

## CLARA E. ROGERS ELEMENTARY SCHOOL SUPERVISORY TEACHERS

**BUTHERUS, ALBERT**, Principal

B. S., 1951, M. A., 1961, Walla Walla College

**FEHRER, EVAINE**

B. A., 1958, College of Idaho

**FERGUSON, RUBY BANKHEAD**

B. A., 1945, Walla Walla College

**HUDSON, HELEN GLADYS**

B. A. in Elementary Education, 1945, Walla Walla College; M. A., 1961, Central Washington College of Education

**LAWSON, CLIFFORD J.**

B. A., 1951, Walla Walla College

**PEARSON, WILLIAM D.**

B. A., 1956, Walla Walla College

**REA, WILLIAM L.**

B. A., 1951, Walla Walla College

**SLOOP, FAYE GIBBON**

B. A. 1956, Walla Walla College

**SMITH, HYRETHA THOMPSON**

B. A. in Elementary Education, 1946, Walla Walla College

**SMITH, MAURICE E.**

B. Th., 1947, M. A., 1954, Walla Walla College

**TEEL, LOIS FLORETTA**

B. A., 1947, Emmanuel Missionary College; M. Ed., 1959, University of Oregon

## INDUSTRIAL SUPERINTENDENTS

SPOO, A. W., General Manager, Industrial Departments  
BENSON, HAROLD L., Construction  
BOND, V. D., Press  
BORDER, LESTER, Plant Services  
  CHENEY, M. O., Grounds  
  COWIN, DARRELL, Motor Pool  
  JENSEN, WILLIAM, Electrical  
  MUNROE, EARL C., Custodial  
  PARKER, LELAND, Heat and Light  
  REYNOLDS, EMIL, Carpentry  
  TSCHRITTER, LEON, Plumbing  
GRIFFIN, LESLIE, Bakery  
KOENIG, WILLIAM, Farm and Herd  
  LEWIS, GLENN E., Farm Associate  
KOORENNY, R. H., Store  
MAYER, J. A., Bindery  
RIGGINS, VERA, Cleaners  
SKIDMORE, GERALD E., Laundry  
SNYDER, WILMER, Food Service  
WICKWARD, BRUCE, Dairy

## FACULTY COMMITTEES

### ACADEMIC STANDARDS

H. L. RASMUSSEN, K. A. APLINGTON, G. S. BALHARIE, C. C. BARNETT, E. F. CROSS, WILMA LEAZER, F. E. MECKLING, J. G. MEHLING, ORPHA OSBORNE, R. E. SILVER, M. K. WEST.

### ADMINISTRATIVE COUNCIL

P. W. CHRISTIAN, R. H. BROWN, M. S. CULVER, HELEN EVANS, H. L. RASMUSSEN, C. W. SHANKEL, A. W. SPOO, T. W. WALTERS, MRS. H. E. WEAVER.

### ADMISSIONS

H. L. RASMUSSEN, M. S. CULVER, HELEN EVANS, ORPHA OSBORNE, J. W. RHODES, J. R. SLOOP, T. W. WALTERS.

### FACULTY SENATE

P. W. CHRISTIAN, R. H. BROWN, ORPHA OSBORNE, H. L. RASMUSSEN, MRS. R. E. SILVER, and all chairmen of departments.

## **GRADUATE COUNCIL**

J. W. RHODES, G. W. BOWERS, R. H. BROWN, H. G. COFFIN, ORPHA OSBORNE, H. L. RASMUSSEN, R. E. SILVER.

## **HEALTH AND SAFETY**

K. E. GROVES, L. H. CANADAY, R. M. DAHLBECK, MRS. C. T. JONES, WILMER SNYDER, J. F. STOUT, MRS. P. G. STRUTZ, T. W. WALTERS, MRS. M. L. ZOLBER.

## **PRE-PROFESSIONAL: NURSING**

R. H. BROWN, D. F. BLAKE, HELEN EVANS, F. R. HANSON, C. T. JONES, WILMA LEAZER, ORPHA OSBORNE, GERTRUDE PYKE, H. L. RASMUSSEN, T. W. WALTERS.

## **PUBLIC RELATIONS**

R. H. BROWN, V. D. BOND, J. R. BURNS, L. DICKINSON, MRS. WM. LAY, A. W. SPOO, T. W. WALTERS, M. K. WEST, E. S. WINTER.

## **RELIGIOUS INTERESTS**

P. C. HEUBACH, G. S. BALHARIE, J. N. BARNES, M. S. CULVER, HELEN EVANS, J. P. GROVE, R. L. LITKE, H. G. STOEHR, T. W. WALTERS.

## **SCHOLARSHIPS AND GRANTS**

R. H. BROWN, C. T. JONES, ORPHA OSBORNE, H. L. RASMUSSEN, EVELYN RITTENHOUSE, J. R. SLOOP, T. W. WALTERS.

## **SOCIAL ACTIVITIES**

J. G. MEHLING, MRS. K. A. APLINGTON, J. J. HAFNER, GENEVIEVE MCCORMICK, C. ROY, H. D. SCHWARTZ, O. WAGNER, N. WOODS, EVELYNNE WRIGHT.

## **STUDENT AFFAIRS**

T. W. WALTERS, M. S. CULVER, HELEN EVANS, ORPHA OSBORNE, J. V. PETERS, LILAH SCHLOTHAUER, C. W. SHANKEL, MRS. R. E. SILVER, J. R. SLOOP, W. SNYDER, MRS. P. G. STRUTZ.

## **TEACHER EDUCATION COUNCIL**

R. E. SILVER, IRENE BLACK, J. V. PETERS, H. L. RASMUSSEN, and the chairmen of all departments offering a teaching major or minor.

## **COMMITTEES, CLINICAL DIVISION**

### **CURRICULUM**

I. RUDY, T. HOLLAND, C. NULL, J. RITER, A. TRACY.

### **FACULTY COUNCIL**

W. LEAZER, T. HOLLAND, M. MCNIEL, D. NICOLA, G. PYKE, J. RITER, I. RUDY, G. SCHERESKY, A. TRACY.

### **GUIDANCE**

G. PYKE, F. GIEBELHOUSE, M. MCNIEL, D. NICOLA, L. WILSON.

### **HEALTH**

G. STODDARD, M. MCNIEL, H. OSBORNE.

### **LIBRARY**

G. PYKE, A. TRACY, L. WILSON.



### **THE HELLO WALK**

Here awaits you a friendly Hello. The tradition is old and as firm as the concrete walks themselves, reaching from hall to hall and generation to generation.

## FACULTY ADVISERS FOR STUDENT ORGANIZATIONS

Associated Students, Graduate Manager .....	C. W. SHANKEL
<i>The Collegian</i> .....	ROBERTA MOORE
<i>The Mountain Ash</i> .....	J. R. BURNS
ASWWC Nominating Committee .....	T. W. WALTERS
ASWWC Religious Activities Committee .....	J. PAUL GROVE
ASWWC Social Activities Committee.....	L. DICKINSON, CAROLYN RHODES
Student Association Center.....	R. L. JONES, EVELYNNE WRIGHT
Sabbath School .....	J. N. BARNES
Missionary Volunteers .....	C. L. TRAUTWEIN
American Temperance Society .....	J. G. PENNER
Aleph Gimel Ain .....	HELEN EVANS
Omicron Pi Sigma .....	M. S. CULVER
Chiquita Sola .....	LYTHE OWEN
Aurora Duxes .....	A. L. WHITE
Epsilon Mu Sigma .....	MR. AND MRS. J. V. PETERS

## ACADEMIC ADVISERS

IN MAJORS: Degree candidates will consider the head of the department in which they major to be their faculty adviser in all matters relating to their academic program. Students planning to teach in either elementary or secondary schools should also counsel with the chairman of the Department of Education.

IN PRE-PROFESSIONAL COURSES: Members of the faculty have been appointed to serve as advisers to students preparing for careers in certain professional vocations, as follows:

Pre-dental .....	H. G. COFFIN
Pre-dental hygiene .....	J. F. STOUT
Pre-law .....	R. L. JONES
Pre-medical .....	C. W. SHANKEL
Pre-medical technology .....	J. R. CHAMBERS
Pre-nursing .....	F. R. HANSON
Pre-occupational therapy .....	E. S. WINTER
Pre-optometry .....	O. WAGNER
Pre-pharmacy .....	C. T. JONES
Pre-physical therapy .....	MRS. C. T. JONES
Pre-veterinary .....	D. W. RIGBY
Pre-X-ray technology .....	C. C. BARNETT

## PERSONAL COUNSELORS

As a part of the college counseling program and with the objective of helping each student to achieve his goals in college, members of the faculty serve as personal counselors to individual students. At the time of registration each student will choose a faculty member as his counselor to whom he may go at any time for advice on any problem.

The Dean of Students is the coordinator of the counseling program of the College.

## COORDINATING COMMITTEE OF WALLA WALLA COLLEGE AND PORTLAND SANITARIUM AND HOSPITAL

C. A. SCRIVEN, <i>Chairman</i>	WILMA LEAZER
R. H. BROWN, <i>Secretary</i>	J. T. PORTER
E. E. BIETZ	H. L. RASMUSSEN
P. W. CHRISTIAN	H. L. RUDY
L. W. CROOKER	GRACE SCHERESKY
V. J. JESTER	A. W. SPOO

## PRESIDENTS OF WALLA WALLA COLLEGE

EDWARD A. SUTHERLAND	1892-1897
EMMETT J. HIBBARD	1897-1898
WALTER R. SUTHERLAND	1898-1900
E. L. STEWART	1900-1902
CHARLES C. LEWIS	1902-1904
JOSEPH L. KAY	1904-1905
MARION E. CADY	1905-1911
ERNEST C. KELLOGG	1911-1917
WALTER I. SMITH	1917-1930
JOHN E. WEAVER	1930-1933
WILLIAM M. LANDEEN	1933-1938
GEORGE W. BOWERS	1938-1955
PERCY W. CHRISTIAN	1955-

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## COLLEGE AIMS

WALLA Walla College is a Christian institution of higher learning operated by the Seventh-day Adventist Church. The College recognizes that true education "means more than a preparation for the life than now is. It has to do with the whole being, and with the whole period of existence possible to man. It is the harmonious development of the physical, the mental, and the spiritual powers. It prepares the student for the joy of service in this world, and for the higher joy of wider service in the world to come."

To achieve this broad aim of education, the College provides an environment in which the student may develop a personal fellowship with Christ. In common with other institutions of higher learning, the College has for its objective the greatest possible scholarship and intellectual attainment for each student. Recognizing the value of health, it encourages the students to respect their physical powers and accept the responsibility for healthful living.

As a liberal arts college, the institution stresses a thorough general education in the humanities, mathematics, science, social science and the Christian heritage, as well as competence and depth in a specified field. It is believed that such studies provide the best foundation for higher learning and for developing leaders with a world vision.

The College also serves students with interests and abilities in industrial and vocational skills. Instruction is, therefore, offered which develops both understanding and proficiency in a number of technical and industrial areas. The institution believes in the value and dignity of practical work.

While serving primarily the Seventh-day Adventist youth of the Pacific Northwest, the College accepts students from other states and countries who are qualified to do college work and who are willing to abide by the Christian principles enjoined on the campus.



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# GENERAL INFORMATION

WALLA WALLA College is located in the city of College Place, in the historic, fertile Walla Walla Valley of southeastern Washington. The Old Oregon Trail, near the campus, leads directly to the site of the old mission which was conducted by Marcus Whitman from 1836 to 1847, and which is now being reconstructed by the Federal Government as the Whitman Mission. The scenic Blue Mountains to the east are but a few minutes' drive from the campus, and offer unusual opportunities for recreation and relaxation.

The College, in successful operation since December 7, 1892, was established in harmony with a resolution unanimously adopted at the General Conference of Seventh-day Adventists held in Battle Creek, Michigan, in 1891.

## CAMPUS AND BUILDINGS

The College buildings are situated on a 55-acre campus dotted with maple and sycamore trees. Other buildings belonging to the College are located on adjoining lots of land, totaling 22 additional acres.

**ADMINISTRATION BUILDING.** The Administration Building is a three-story structure located in the center of the campus. This building houses the administrative offices, Student Association Center, and a number of classrooms, laboratories, and teacher offices.

**RESIDENCE HALLS.** Conard Hall offers comfortable accommodations for 400 women, together with such features as a large worship room done in church style, a recreation room, and attractive parlors. A modern communication system aids in making dormitory life delightful.

Sittner Hall, the men's residence, was erected in 1947. It houses 430 men, and is modern in every respect.

**LIBRARY.** The College Library is a vital part of the educational program at Walla Walla College. The building, completed in 1944, is convenient and well planned. Reading room accommodations, the open-shelf

system, seminar and conference rooms, and a browsing room contribute to the study and enjoyment of books. A microfilm reader and a microcard reader make accessible microfilmed, scholarly material. The Library contains 67,300 bound volumes and 5,000 pamphlets. An average of 2,500 volumes is accessioned annually. The Library receives 450 current periodicals regularly and also has a classified file of almost 1,500 mounted pictures. All these materials are adequately catalogued by modern methods, and periodical indexes and other bibliographical aids are available. Resources in other libraries are available to students and faculty members through the Library's membership in the Pacific Northwest Bibliographic Center, which serves as a clearinghouse for interlibrary loans.

**BIOLOGY BUILDING.** The Biology Building consists of a large lecture hall, seven laboratory rooms, four teacher offices, ten graduate-student research rooms, a library and seminar room, two photographic darkrooms, a large stockroom, and a storeroom. The museum collections include thousands of specimens of mounted birds, mammals, insects, marine animals, fossils, plants, and smaller groups.

Off the main campus the Department of Biological Sciences operates the Walla Walla College Biological Station at Rosario Beach, Anacortes, Washington, on the Puget Sound.

**CHEMISTRY BUILDING.** The Chemistry Department is housed in Bowers Hall, a two-story brick building located southwest of the quad-rangle. The accommodations include two classrooms, five laboratories, two research laboratories, a library-seminar room, three offices, a stock-room, and a photographic darkroom.

**CLARA E. ROGERS ELEMENTARY SCHOOL.** The Rogers School, completed in 1952, is one the most modern elementary school buildings in eastern Washington. The building has 27,000 square feet of floor space and contains nine large classrooms, teacher offices, library, curriculum laboratory, craft room, administrative offices, and a multipurpose room for such activities as band, orchestra, or choir rehearsal. Five and one-half acres of playground area adjoin the school to the south and west. These facilities provide an excellent experience for students in teacher training.

**COLLEGE CHURCH.** The College Church is a large, new brick structure done in modern architecture. It seats 2,500 worshipers and 150 choir members. The Casavant-Freres organ is a three-manual, five-division instrument with forty ranks of pipes. In addition to the church itself, there are a youth chapel and several large rooms for youth and children's Sabbath Schools.

**COLUMBIA AUDITORIUM.** Columbia Auditorium, a reinforced concrete gymnasium-auditorium with a seating capacity of over 2,000 persons, is equipped with a splendid pipe organ. The building serves the college community adequately as an auditorium and as a gymnasium. The large floor provides ample space for physical education activities, games and roller skating, while retaining the galleries for use of spectators.

**E. C. KELLOGG HALL.** Completed in 1958, this building contains food service facilities and the Home Economics Department, and is one of the most functional buildings of its type in the entire Northwest.

**ENGINEERING-PHYSICS-MATHEMATICS BUILDING.** Scheduled for completion in autumn, 1963, is a reinforced concrete and masonry structure of 30,000 square feet, designed to house the departments of engineering, physics, and mathematics. In addition to classrooms, laboratories, and staff offices, the building will contain a departmental library, computer room, radioactive isotope storage vault, and a science demonstration lecture hall seating 150.

**JOHNSON MUSIC HALL.** Completed in 1927 and named in honor of C. Johnson, this building and its annex provide the Music Department with studios, practice rooms, and an auditorium for recital purposes. Listening rooms make the growing record library accessible to interested students.

**STUDENT HEALTH CENTER.** A Student Health Center with a full-time registered nurse as director is maintained on the campus. Clinical and hospital facilities, consultation rooms, treatment rooms, and other necessary facilities are available for student use. Several physicians maintain regular office hours in the Student Health Center.

**SWIMMING POOL.** The College maintains an indoor swimming pool for instructional and recreational purposes. Water for the pool is supplied from the College artesian well and is maintained at a comfortable temperature.

**VOCATIONAL BUILDINGS.** Several industries owned and operated by the College provide vocational training and also offer students opportunities for part-time employment while in college. Students may learn auto mechanics, baking, bookbinding, carpentry, dairying, farming, general merchandising, laundering, metalworking, printing and woodworking.

**COLLEGE FARM.** The College farm, consisting of 286 acres of fertile land, raises hay, grains, sugar beets and beans. The College barn, erected in 1954, is one of the more up-to-date installations of its type in the Walla Walla Valley. A herd of approximately one hundred twenty-five cows supplies milk for the College and for commercial uses.

**PORLAND SANITARIUM AND HOSPITAL.** In addition to the College Place campus, Walla Walla College also utilizes the large plant of Portland Sanitarium and Hospital, located at Portland, Oregon, where the students in nursing obtain their clinical practice.

On the Portland campus is a residence hall for unmarried women students in the clinical division, located across the street from the Portland Sanitarium and Hospital. The nurses' home has a large parlor, sitting rooms, a modern kitchen, and laundry facilities to provide for comfortable living in homelike surroundings. A reverent and devotional atmosphere for worship or private meditations is provided by the little chapel on the main floor.

The nurses' home also contains adequate classrooms, a library, and laboratory used exclusively for student nurses.

Living accommodations are not provided for men students in the clinical division, but the school will assist them in finding accommodations near the hospital.

## HOUSING FOR STUDENTS

**APARTMENTS.** The college owns fifty units of one- and two-bedroom apartments which are available for married students. These apartments rent for reasonable amounts. There are also apartments in the community, furnished and unfurnished, in which married students may live. For information write the Finance Counseling Office.

**RESIDENCE HALLS.** All unmarried students are required to live in one of the College residence halls and to board in the College cafeteria, unless they live with their parents or with other close relatives in the immediate community. Under special circumstances, however, sophomores and upper division students with superior college records may make application to the Dean of Students for permission to live off the campus in an officially approved home. Such applications will be acted on only at the beginning of a quarter. Failure to secure official approval to reside in the community or to withdraw from a College residence hall will invalidate the registration of the student. Students who have received approval for off-campus living may be called into the College residence halls at any time.

## RELIGIOUS ACTIVITIES

Walla Walla College sponsors several organizations and activities which aid in training the students for Christian service.

**CHURCH AND SABBATH SCHOOL.** The Walla Walla College Church with a membership of approximately 1,300 provides opportunities for group worship and offers training in missionary endeavor and church organization.

The Sabbath School provides leadership training and teaching experiences for college students who wish to develop their abilities in religious education.

**MISSIONARY VOLUNTEER SOCIETY.** The Missionary Volunteer Society has for its object the development by theory and practice of efficient missionary workers. Several auxiliary bands, such as Foreign Mission, Literature Distribution, and Sunshine, are under the direction of this organization.

**PRAYER BANDS.** The prayer bands under student leadership encourage the prayer life of the students. These groups meet regularly and foster the spiritual life of the individuals who participate.

## STUDENT ORGANIZATIONS

**ASSOCIATED STUDENTS.** The Associated Students is an organization whose membership consists of all faculty members and regularly enrolled students. The Association has for its object the promotion of Walla Walla College ideals and activities. The two official publications of the Associated Students are *The Collegian*, the weekly newspaper of the College, and *The Mountain Ash*, the yearbook.

### **Residence Clubs**

Aleph Gimel Ain (AGA)	Dormitory women
Omicron Pi Sigma (OPS)	Domitory men
Chiquita Sola (CS)	Single village women
Aurora Duxes (AD)	Single village men
Epsilon Mu Sigma (EMS)	Married students

### **Departmental Clubs**

- American Institute of Physics, WWC Chapter
- Beta Mu (Home Economics)
- Biology Club
- Business Administration Club
- Chemistry Club
- Engineering Club
- Grammateis Club (Secretarial)
- Gymkhana Club (Physical Education)
- Industrial Education Club
- International Relations Club (History)
- Pegasus Club (English)
- Teachers of Tomorrow (Education)
- Theology
- Theta Phi Delta (Nursing)

### **Interest Clubs**

- Chancery Club (Law)
- Pauling Club (Pre-professional)



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## GENERAL REGULATIONS

**SOCIAL STANDARDS**  
In all matters pertaining to personal conduct, students are expected to act as responsible citizens and members of a Christian community. Any student whose activities demonstrate lack of harmony with the principles and standards of the College thereby places in jeopardy his membership in the student body. Every effort will be made to stimulate students to worthy scholastic endeavor and consistent Christian living, but the College cannot be expected to assume responsibility for students who are not in sympathy with its announced purposes.

### STUDENT CITIZENSHIP

Each individual coming to Walla Walla College for the purpose of entering any department of the College is subject to its supervision and jurisdiction from the time of arrival in College Place until his connection is terminated by graduation or by an officially approved withdrawal. Any regulation adopted by the Board or the Faculty, and publicly announced to the student body, shall have the same force as if published in this bulletin.

The record of each student is reviewed periodically, and his continuation in college is based upon his attitudes and general conduct, as well as his scholastic attainments.

### CHAPEL

The chapel hour, which is held two times each week, is regarded as a vital part of the total education program at Walla Walla College, and regular attendance is required of each student.

### SABBATH OBSERVANCE

The seventh-day Sabbath is observed at Walla Walla College from sunset Friday to sunset Saturday, and all students are expected to conduct themselves in harmony with the sacred nature of the day. This includes attendance at the Friday evening devotional service, as well as Sabbath school and church service on Sabbath morning.

## **MORAL CONDUCT**

Students are expected to abstain from behavior inconsistent with the basic principles of Christian living as interpreted by the College. Specifically, this includes the use of profane and unbecoming language, visiting pool halls or gambling places, attending the theater, motion pictures, or any other type of entertainment not approved by the College, the use of alcoholic beverages or tobacco in any form, card playing or having possession of cards, reading or having possession of pernicious literature, and engaging in improper associations. Those who engage in such practices will not knowingly be admitted or retained as students.

## **SOCIAL STANDARDS**

Walla Walla College is a coeducational institution, and as such, recognizes the desirability of proper associations among its students. The marriage of students during the regular school year (September to June) or during the summer session is not approved, and students should make their marriage plans for the vacation periods immediately before or after summer school, or during a quarter when they are not registered in the College. The registration of any student who violates this regulation will be canceled. The social policies of the College are fully outlined in the *Student Handbook*, and each student is responsible for becoming familiar with these policies and acting in harmony with them.

## **USE OF VEHICLES**

Since the ownership and the use of an automobile frequently militate against success in college, students are not encouraged to bring automobiles with them to the College unless absolutely necessary. Freshmen are not permitted to bring automobiles to the College, or to the vicinity, or to operate automobiles owned by other individuals.

All students, whether living in the residence halls or in the community, who own or operate any type of motor vehicle (car, motorcycle, scooter, etc.) must register these within twenty-four hours after arrival at the College. Drivers must, of course, have a valid operator's license. Furthermore, it is required that all operators of motor vehicles carry public liability and property damage insurance and that they can show evidence for this insurance at the time of registration and whenever requested.

Failure to comply with these regulations makes the student liable to a penalty of \$25. Regulations governing the use of automobiles by students are published in the *Student Handbook*; students are expected to become familiar with these regulations, since failure to comply with them may result in disciplinary action.

## **MEDICAL EXAMINATION**

At the time of admission to the College each new student is required to submit evidence of a standard physical examination, or to have such examination under the direction of the College physician. Approved forms are available in the Registrar's Office.

Students in nursing who are ready to enter the clinical division will need additional tests. Inquire about these from the School of Nursing.

## MISCELLANEOUS

The College cannot accept responsibility for any loss of or damage to the personal property of any student.

Any student causing damage to College property is expected to report such damage promptly and to pay the cost of repairs or replacement; if the damage is not reported to the proper authority within twenty-four hours, double the cost of replacement will be charged, and disciplinary action may result.

## THE RESIDENCE HALLS

The College believes that the purpose of the institution can be realized most successfully when all unmarried students live in the College residence halls. Here, amid comfortable, homelike influences, the students may cultivate those habits of life and graces of character which distinguish the refined Christian man and woman. These years in the lives of students are usually the formative ones, when habits of promptness, neatness, self-control, courtesy, and ideals of association are formed. The value of such training is properly regarded as a most vital part of an education for life.

Daily association of earnest young people helps to develop strong Christian character in students. Attractive parlors are provided in each residence hall for group entertainments, and for the general use of the students during leisure time.

**PLEDGE OF COOPERATION.** Students who apply for admission to one of the College residence halls are understood by that act to pledge themselves to conform cheerfully to all regulations printed in this bulletin, the *Student Handbook*, or announced publicly.

**STUDY HOUR.** In order to provide an atmosphere of study, quietness is maintained during the evening study period. Permission must be secured from the dean for any absence from the residence halls during the study hours. Students are not expected to receive visitors or to make or receive telephone calls during this time except in case of emergency.

**LEAVING THE CAMPUS.** Since it frequently happens that students are unexpectedly called for, and since students are responsible to those in charge of the residence halls, no student should leave the campus for any length of time without making arrangements with his residence hall dean. For campus leaves which involve absence from classes, the student must also receive the permission of the Academic Dean.

**ROOMS.** Students living in the residence halls are required to care for their own rooms, and are expected to observe habits of neatness and cleanliness about the premises. When a student withdraws from school, his room should be left neat and clean. Failure to do this will cause forfeiture of his room deposit.

**WORSHIP ATTENDANCE.** Attendance at evening and morning worship, Friday evening vespers, Sabbath school, and Sabbath morning church services, is expected of all dormitory students.

**SECONDARY SCHOOL STUDENTS.** Secondary school students (grade nine to twelve) are not assigned accommodations in the College residence halls, but are referred to one of the boarding academies in the Pacific Northwest which are affiliated with Walla Walla College.

## INTRAMURAL SPORTS

The College sponsors a program of intramural sports in connection with the physical education activities. Participation in the intramural sports program is open to students whose grade-point average was C or better the preceding quarter.

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## ACADEMIC INFORMATION

WALLA WALLA College will admit as students men and women of good moral character who are willing to do earnest, faithful study. Any student seeking admission to the College thereby pledges to comply with the standards and regulations as published or announced. Should this pledge be broken, the student may be required to withdraw.

### ADMISSION PROCEDURE

Formal application for admission to the College is required on a form supplied by the Registrar. A recent photograph and a \$2 fee must be included. The chief factors considered by the Admissions Committee are good character, scholastic achievement, intellectual ability, financial support, and good health. Notification of acceptance is sent promptly after the applicant's record of previous work and recommendations have been received by the College. No application will be accepted for the autumn quarter after August 15.

All records become the property of the College and are kept on permanent file. Applications should be made as early as possible prior to the quarter in which study is to commence.

**LETTER OF ACCEPTANCE.** Under no condition should an applicant consider himself accepted until he has received an official letter of acceptance from the Registrar's Office or from the chairman of the Admissions Committee. Applicants ought not to plan on residence or work on the campus until they have been formally accepted.

**OFFICIAL TRANSCRIPT.** While a student may receive tentative acceptance on the basis of an unofficial transcript, no one will be permitted to register unless there is an official transcript in the Registrar's Office for him at the time of registration.

## ADMISSION TO THE FRESHMAN CLASS

Applicants for admission to the Freshman class shall have been graduated from a recognized four-year secondary school and shall have earned an average grade of C in the basic courses. The pattern of subjects required for entrance is not rigidly prescribed, but an applicant should have completed those subjects which are prerequisites of the curriculum he wishes to pursue in college. The following pattern of basic subjects (solids) is highly recommended:

English	3 units
Foreign Language	2
Mathematics: Algebra, Geometry	2
Science	2
Social Studies (including History, 1 unit)	2

**ENTRANCE REQUIREMENTS FOR THE CURRICULUMS.** Certain specific subjects are required for admission to the various curriculums or courses of study in the College. Applicants who are deficient in one or two subjects required for entrance to their chosen curriculum will be required to make them up during the first year of residence. These required subjects are given in the columns below. For the specific requirements see the letter following the course of study and then look under the column headed by that letter.

Biblical Languages	B	Mathematics	A
Biology	A	Medical Technology	A
Business Administration	A	Music	B
Chemistry	A	Nursing	D
Elementary Teaching	B	Physical Education	B
Engineering	A	Physics	A
English	B	Pre-Dental	A
Foods and Nutrition	A	Pre-Law	A
German	B	Pre-Medical	A
History	B	Secretarial Science	C
Home Economics	C	Spanish	B
Industrial Education	B	Theology	B
Interior Design and Decoration	C		

	A	B	C	D
English	3	3	3	3
History	1	1	1	1
Mathematics:				
Algebra	1	—	1	—
Geometry	1	—	—	—
Elective	—	1	—	2
Science	1	1	1	1
Additional Basic Units	2	3	3	2

**CHANGING CURRICULUMS.** An applicant who has been admitted to one course of study or curriculum may not change to another without satisfying the entrance requirements of the curriculum to which he



## **COUNSEL**

**"He who will not be counseled cannot be helped."** Here the Assistant Dean of Men shares some pertinent advice with a freshman.

wishes to transfer. A student is not considered for degree candidacy until the entrance requirements of his curriculum or course of study have been met.

**ADMISSION BY EXAMINATION.** Mature persons who have not completed secondary school or who are unable to furnish transcript of credits may be admitted to freshman standing through examination as required or administered by the Admissions Committee. Students so admitted are not granted regular admission until they demonstrate ability to maintain a satisfactory scholarship record.

**SPECIAL ADMISSION.** Individuals ineligible for regular admission who are at least twenty-one years of age may be admitted as special students, and may register for any course for which they have sufficient background. Special students are not eligible for a degree. However, by completing requirements for regular admission they may become degree candidates.

**TRANSIENT ADMISSION.** Students who have been in residence at other institutions of higher learning and who are not candidates for a degree from this College may be classified as transients. The category includes those who wish to transfer limited credit to other institutions and those registering for certain adult education courses.

**FRESHMAN ORIENTATION.** During the first week of the autumn quarter all entering freshmen are required to attend the orientation program. Counseling and instruction concerning course of study, registration, and college regulations are given. Several tests designed to guide students in planning individual programs are also administered.

**PSYCHOLOGY TESTS.** All new students are required to take a battery of college aptitude tests during the orientation week or as soon thereafter as possible. The following are exempt: students who have taken the Washington Pre-college Differential Guidance Test in the high school, and transfer students who can have the scores of such or similar tests transferred before registration.

## **ADMISSION TO ADVANCED STANDING**

Applicants who have attended other institutions of collegiate rank may be admitted to advanced standing by submitting complete official transcripts of all credits embodying a statement of honorable dismissal. Failure to indicate that work has been taken at other institutions at the time of application invalidates any admission. The maximum amount of credit accepted from a junior college is 108 quarter credits.

Students transferring from nonaccredited institutions are given conditional status with tentative credit for previous work as evaluated by the Academic Dean and Registrar or the Academic Standards Committee. If the student maintains a C average or above, he may be given regular status with such credits for advanced standing as the transcript evaluation warrants. Failure to meet this standard will delay or prohibit graduation.

A student who has been dismissed from another institution because of poor scholarship, or who is on probation from such institution, is not

eligible for admission to the College until he can qualify for readmission to the institution from which he has been dismissed.

A transfer student with senior standing must be in residence three quarters and must complete a minimum of 36 credits including nine credits of upper division work in the major and three credits in the minor.

Each new student is required to submit evidence of a standard physical examination. Approved forms are available in the Registrar's Office.

## CLASSIFICATION OF STUDENTS

**FRESHMAN.** Applicants for admission to the College who fulfill the entrance requirements for their chosen course of study are listed as freshmen.

**SOPHOMORE.** Students who have met the entrance requirements of their chosen course of study and who have a minimum of 36 credits with a grade-point average of at least 2.00 are listed as sophomores.

**JUNIOR.** Students who have a minimum of 84 credits with a grade-point average of at least 2.00, who can complete degree requirements by the end of the following school year, and who have been approved by the Registrar are eligible for junior class membership.

**SENIOR.** Students with a minimum of 136 credits with a grade-point average of at least 2.00 and who can complete all degree requirements during the current school year are eligible for senior class membership.

**GRADUATE.** The College offers courses leading to the Master of Arts degree with majors in Biology and Education. For further information concerning graduate courses and degree requirements see the bulletin of the Graduate Division.

**AUDITORS.** A student may audit certain courses with permission of the instructor involved. No credit is allowed and an audited course may not later be taken for credit. Students wishing to audit courses must register in the usual manner and are charged a minimum of one-half tuition.

## REGISTRATION

The regular academic year is divided into three periods or quarters. The summer session is regarded as the fourth quarter.

All students are required to register on designated days at the beginning of the academic year and prior to the beginning of each quarter. Registration is not official until all procedures required by the Registrar have been completed and all fees have been paid. Students are assigned faculty advisers who assist in registration and planning programs. Changes in registration, approved by the adviser, may be made during the first week of instruction. No changes involving other courses are permitted after this time without the permission of the adviser and instructor involved. A charge of \$1 for each change of registration is made after the first week of instruction. Courses may not be added after the second week of any quarter.

**WITHDRAWALS.** Students withdrawing from college or individual courses must file an official drop voucher with the Registrar's Office. Failure to do so will result in the recording of unsatisfactory withdrawal (Wf) on the student's permanent record. During the first seven weeks of any quarter the student may withdraw from a course and receive a W. Withdrawals after this time will result in the recording of a Wf unless exception is granted by the Academic Dean. Withdrawals must be approved by the adviser and instructor involved and are not permitted during the last two weeks of a quarter.

**LATE REGISTRATION.** Students who register after the designated registration periods are charged a late registration fee of \$5. Students may not register after the second week of a quarter without permission of the Academic Dean and the instructors involved, and a reduction in course load.

## EXPLANATION OF CREDITS

A credit usually represents one class meeting a week or three hours of laboratory work a week for the duration of the quarter. Thus, a three-credit class would meet three times each week. For each "quarter credit" of school work earned a student is expected to spend two clock hours a week in outside preparation or three hours a week in supervised study or laboratory work.

**STUDY LOAD.** The normal load is 16 credits per quarter. Sophomores, juniors, and seniors may register for 18 credits if their grade-point average for the previous quarter was 3.00 (B).

Students in college residence halls may not register for less than 10 credits without permission of the Academic Dean. Students are not permitted to add to their load by giving or receiving instruction away from the College, or registering for correspondence work, without permission of the Academic Standards Committee.

In general, 16 quarter credits are considered a full study load. Therefore, students who have to work should reduce their study load accordingly. The following is recommended:

OUTSIDE WORK	STUDY LOAD
1 - 14 hours per week	12 - 16 credits
15 - 20	10 - 14
20 - 24	8 - 12

The following study loads will satisfy the authorities indicated:

1. Immigration Authorities	12 quarter credits
2. Selective Service	15
3. Veterans	14

## COURSE NUMBERING

Beginning June 1, 1963, the following numbering system went into effect:

### SUB-COLLEGE LEVEL

No credit. Courses numbered 0 to 99 carry no credit toward a degree or a college program.

## LOWER DIVISION

**Freshman.** Courses numbered 100 to 199 are considered first-year college courses, or the freshman level. Seniors registering for these courses may not count such credits toward the required 192 credits for a degree.

**Sophomore.** Courses numbered 200 to 299 are considered second-year college courses, or the sophomore level.

## UPPER DIVISION

**Junior.** Courses numbered 300 to 399 are considered third-year college courses, or the junior level.

**Senior.** Courses numbered 400 to 499 are considered fourth-year college courses, or the senior level. Some of these courses may apply toward a graduate program.

## GRADUATE

Courses numbered 500 to 599 are considered fifth-year college courses, the graduate level. Seniors with high scholarship who are concurrently completing their last year in a degree program and who are within 12 credits of graduation may be permitted to take some of these courses.

## MISCELLANEOUS

Course numbers connected with hyphens indicate courses which ordinarily carry credit only when completed in their entirety. Uncompleted hyphenated courses do not carry credit toward completion of any course or degree unless by permission of the chairman of the department and the Academic Standards Committee.

Ordinarily, courses numbered 300 or above may not be taken until 84 credits have been earned and the following lower division requirements have been met:

Religion	12 credits
Freshman Composition	9
Science or Mathematics	12
Physical Education and Health	6

However, a sophomore who has completed 75 credits may petition the Academic Standards Committee for permission to register for courses numbered 300-399 if he has all the course prerequisites, his scholarship is acceptable, and if progress in his chosen curriculum would otherwise be jeopardized.

The numbers printed in parentheses after each course description are the course numbers used prior to June 1, 1963.

## PREVIOUS NUMBERING SYSTEM

Courses numbered 1-49 inclusive are normally taken by freshmen. A senior may not register for courses so numbered and receive credit toward the 192 hours required for graduation.

Courses numbered 50-99 inclusive are normally taken by sophomores or more advanced students. In certain instances freshmen may be permitted to register for courses so numbered.

Courses numbered 100-199 inclusive are normally taken by juniors and seniors.

Courses numbered 200 or above are primarily for graduate students. Seniors with exceptional scholarship records may be admitted to these courses on the approval of the instructor.

## GRADING SYSTEM

The quality of student effort is measured by a system of grades and by computed grade-point averages. Each grade is assigned a numerical value in points. A report of grades earned is made to both students and parents at the end of each quarter. Grades once recorded by the Registrar may not be changed unless an error has been made. The following system of grades and point values is used:

A—exceptional	4 grade points per credit
B—above average	3
C—average	2
D—below average	1
F—failure	0

Other symbols used are as follows: S, satisfactory; W, withdrawal; Wf, unsatisfactory withdrawal; I, incomplete; and Au, audit course. The Wf is recorded when students unofficially withdraw from a class or withdraw after the first seven weeks of any quarter. The I is given in case of incomplete work due to justifiable causes and must be made up during the following quarter; otherwise it becomes an F. This regulation also applies to students who discontinue college. Permission to receive an I must be obtained from the instructor. A student with an I should adjust his course load the following quarter so that the work may be completed without jeopardizing scholarship in other classes.

**GRADE-POINT AVERAGE.** The grade-point average (GPA) is computed by totaling the grade points for all courses and dividing by the total credits for which grades are received. Credits for which an F or Wf are received are included in calculating the grade-point average. The symbols S, I, W, and Au are disregarded in computing the grade-point average.

**REPEAT COURSES.** Students may repeat only courses in which grades lower than a C have been received. Courses in which an F has been received must be repeated in residence unless permission to do otherwise is granted by the Academic Standards Committee. In computing the grade-point average both the original grade and the grade received in the repeated courses are included.

**SCHOLASTIC PROBATION.** A student who fails to make satisfactory progress toward graduation will be placed on scholastic probation. A quarter of cumulative grade-point average below 2.00 (C) is considered unsatisfactory and will bring the student's record under review by the Academic Dean. Students whose cumulative grade-point average falls below C (2.00) are automatically placed on scholastic probation, and they remain so classified until the overall GPA is again 2.00 or better.

## HONORS

**HONOR ROLL.** Students with a grade-point average of 3.50 or above, who are registered for at least 15 credits, are listed on the official honor roll issued each quarter.

**GRADUATION HONORS.** Candidates for the baccalaureate degree with a minimum grade-point average of 3.50 may be awarded the degree with honors, *cum laude*.

## **CLASS REGULATIONS**

Students are not officially registered for a course until the instructor has received a class card from the Registrar's Office. The student is responsible for punctual and regular attendance at all classes for which he is registered. It will be recognized that missing instruction for any reason may jeopardize the class standing and course grade. Arrangements may be made with the Academic Dean for emergency situations.

## **CORRESPONDENCE WORK**

The College will accept a maximum of 24 quarter credits of approved courses by correspondence towards a degree. Correspondence work may not apply on a major unless approved by the chairman of the department concerned. Students must obtain approval from the Academic Standards Committee to carry correspondence work while in college, and correspondence work taken while attending college will be counted as a part of the student's study load. Seniors who have unfinished correspondence work will not be listed as prospective graduates until such work is completed. Correspondence work will not meet upper division requirements, nor can a student who has failed a course make this up by correspondence study.

## **EXTENSION COURSES**

Extension courses are accepted provided the institution offering the courses accepts similar credits towards a degree on its own campus.

## **VOCATIONAL AND TECHNICAL PROGRAMS**

As a service to students with interests and abilities in technical and vocational skills, the College offers a program leading to a certificate in printing, secretarial, and a few vocational-industrial areas. These courses do not lead to a degree, but will prepare the students for positions in the areas mentioned. Write for information.

## **EXAMINATIONS AND WAIVERS**

Applications to receive credit by examination for work in which credentials cannot be supplied must be filed with the Academic Standards Committee during the first quarter of residence. Examination and recording fees are charged for credits obtained in this manner. The grades earned, even when unsatisfactory, will be recorded.

Requests for waivers of credit must be made during the first three quarters in residence.

## **TRANSCRIPTS**

One transcript of a student's record is supplied without charge. A fee of \$1 per transcript is charged thereafter. Credits are not accepted or recorded after a student has ceased residence in the College.

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# DEGREE REQUIREMENTS

THE College offers courses of study leading to the following degrees:

Bachelor of Arts  
Bachelor of Music  
Bachelor of Science

Bachelor of Science  
in Engineering  
Master of Arts

Candidates for degrees are expected to be fully informed concerning degree requirements and are responsible for their fulfillment. A student shall have the option of meeting degree requirements as published in the bulletin at the time of initial registration or any bulletin published while in regular attendance. Those not in regular attendance for two consecutive quarters must meet the requirements of the current bulletin upon resuming attendance.

For information concerning requirements for the Master of Arts degree see the bulletin of the Graduate Division.

## GENERAL DEGREE REQUIREMENTS

All candidates for baccalaureate degrees must complete a minimum of 192 credits including 60 credits in courses numbered 300 or above, and have a cumulative grade-point average of 2.00 (C) or above.

**MAJOR AND MINOR STUDY.** A minimum of 45 credits in a major and 27 credits in a minor or completion of the prescribed requirements of certain curriculums is required. The degrees Bachelor of Music, Bachelor of Science in Engineering, and certain curriculums in the School of Nursing and in the Department of Education do not require a minor.

Candidates for secondary teacher certification will take majors of 45 credits and minors of 25 credits as outlined in each department.

The major should be chosen no later than the end of the sophomore year. The selection of a minor and appropriate electives should be made in counsel with the major professor or faculty adviser.

A grade lower than C (2.00) in a course may not apply on a major or minor except in Engineering and in the School of Nursing. At least 21 credits in the major and 3 credits in the minor must be in courses numbered 300 or above. The maximum allowed on a major for the Bachelor of Arts degree is 60 credits unless the excess is beyond the 192 credits required for the degree.

Majors are available in the following areas:

Biblical Languages	Industrial Education
Biology	Interior Design and Decoration
Business Administration	Mathematics
Chemistry	Medical Technology
Elementary Teaching	Music
Engineering	Nursing
Engineering Physics	Physical Education
English	Physics
Foods and Nutrition	Religion
German	Secretarial Science
History	Spanish
Home Economics	Theology

Minors are available in the following areas:

Art	Industrial Education
Biblical Languages	Journalism
Biology	Mathematics
Botany	Music
Business Administration	Physical Education
Chemistry	Physics
Economics	Political Science
English	Religion
Foods and Nutrition	Secretarial Science
German	Social Science
History	Spanish
Home Economics	Speech

**TEACHING MAJORS AND MINORS.** Students who are preparing for secondary teaching should choose teaching majors and minors as outlined in each department of the College. These majors and minors will not meet graduation requirements unless the student also completes the professional and cognate courses for teacher certification. Teaching majors are not available in the following fields: Biblical languages, education, engineering, foods and nutrition, interior design and decoration, medical technology, nursing, religion, theology.

**COMPREHENSIVE EXAMINATION.** Satisfactory completion of a comprehensive examination in the major is required before a degree may be conferred. A student who fails this examination may not attempt another examination until one quarter has elapsed. Engineering and industrial education students will submit an appropriate project and/or report approved by the chairman of the department.

**RESIDENCE.** Degree candidates must be in residence three quarters during their senior year and complete a minimum of 36 credits.

**CANDIDACY FOR DEGREE.** Degree candidates must file a copy of the proposed schedule of courses for the senior year and a formal application for a degree with the Registrar not later than one week after the beginning of the third quarter preceding graduation. Appropriate forms may be obtained from the Registrar's Office. Students are not considered candidates for degrees or eligible for senior class membership until officially so notified by the Registrar.

Candidates for degrees must be members of the senior class. The fee fixed by the class and approved by the President of the College must be paid not later than March 5 in order for candidates to be eligible for graduation.

Seniors who have unfinished correspondence work will not be listed as prospective graduates until such work is completed; and all incompletes must be removed one month prior to graduation. Failure to comply with this regulation will delay graduation.

## **BACHELOR OF ARTS DEGREE: BASIC REQUIREMENTS**

Candidates for the Bachelor of Arts degree must meet certain general education requirements which are to provide a basic understanding of those areas of knowledge common to the liberal arts. The pattern of courses required depends upon the secondary school background and the major chosen. The areas and the specific requirements are as follows:

<b>HUMANITIES</b>	<b>Credits</b>
English 101-102-103.	
Literature and Speech. A total of nine credits is required in literature and speech. Five of these must be in literature; the remaining credits may be chosen from speech or literature. One course of literature may be in a foreign language. Candidates for teaching certification must complete five credits in literature and four credits in speech.	9

**Language.** The number of credits required depends upon the amount of language completed in secondary school and the major chosen.

Majors in the following must complete 9-24 credits:

Biology	Language	Religion	
Chemistry	Mathematics	Theology	9-24
English	Music		
History	Physics		

Students who have had two units of one language in secondary school must complete nine credits if the same language is continued. Those who have had no language or do not continue the same language must complete 24 credits. Music majors must complete French or German. Majors in chemistry should choose German. Majors in theology must choose Greek for their language requirement. Majors in religion may choose Greek or a modern language.

Majors in the following must complete 0-15 credits:

Business Administration

Home Economics

Interior Design and Decoration

0-15

No language is required of students who have had two units of one language in secondary school. Those who have had no language previously must complete 15 credits.

#### **NATURAL SCIENCE AND MATHEMATICS**

Completion of a basic course in one of the following areas: Biological Science, Chemistry, Physics, or Mathematics.

12

#### **SOCIAL SCIENCE**

**Education, Psychology.** Philosophy of Christian Education and General Psychology are required.

5

**History.** Completion of either History 101, 102, 103 or 201, 202, 203.

9

**Religion.** Students who submit two or more units of Bible from an academy will complete 18 credits in college. Students who have completed less than two units of Bible in academy, and those transferring from non-Seventh-day Adventist colleges will take two credits each quarter in college. Religion 201, 202, 203 or the equivalent is required of all students. Students who enter college with fewer than two units in religion should begin their religious studies with courses 101, 102, 103.

Additional credits are to be chosen from the following courses: 104, 105, 106; 141, 142, 143; 221, 222, 223; 321, 322, 323; 341, 342, 343; 364, 365, 366; 421, 422, 423 or 427, 428; 426; 444, 445; 464, 465, 466.

18-24

#### **PHYSICAL EDUCATION AND HEALTH**

**Health.** Completion of the course Health Principles or waiver by examination during the freshman year.

3

**Physical Education.** Physical Education is required of all students under 30 years of age. Veterans who have completed basic training are exempt from Physical Education upon presentation of discharge papers.

3

#### **APPLIED ARTS**

**Vocation.** Completion of nine credits of courses in which the primary objective is the development of a manual skill, or satisfactory employment for a minimum of two hundred and seventy hours during a given academic year in one of the College's auxiliary departments or an approved establishment in the community. Those choosing the first option may elect any laboratory course in Home Economics or Industrial Education, or courses in Accounting, Engineering Drawing, Library Science, Shorthand and Typewriting. A minimum of six credits must be completed in one department. Those choosing the second option are required to file a statement of their intention at the beginning of the academic year in which the employment is proposed and must present evidence of satis-

factory employment before the applied arts course requirement  
may be waived.

9

## BACHELOR OF SCIENCE DEGREE: BASIC REQUIREMENTS

Candidates for the Bachelor of Science degree are required to complete certain general education requirements and usually a greater concentration of courses in their major and cognate areas. The general education requirements are as follows:

HUMANITIES	Credits
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English 101-102-103.

9

**Literature and Speech.** A total of nine credits is required in literature and speech. Five of these must be in literature; the remaining credits may be chosen from speech or literature. Students majoring in Engineering Physics are exempt. One course of literature may be in a foreign language. Candidates for secondary teaching certification must complete five credits in literature and four credits in speech.

9

**Language.** The number of credits required depends upon the amount of language completed in secondary school and the major chosen.

Majors in the following must complete 9-24 credits:

Biology	Mathematics
Chemistry	Physics

9-24

Students who have had two units of one language in secondary school must complete nine credits if the same language is continued. Those who have had no language or do not continue the same language must complete 24 credits. Majors in chemistry should choose German.

No language is required for the following majors:

Business Administration	Medical Technology
Elementary Teaching	Nursing
Engineering Physics	Physical Education
Foods and Nutrition	Secretarial Science
Industrial Education	

0

## NATURAL SCIENCE AND MATHEMATICS

Completion of a basic course in one of the following areas: Biological Science, Chemistry, Physics, or Mathematics.

12

## SOCIAL SCIENCE

**Education, Psychology.** Philosophy of Christian Education and General Psychology are required. Students in the School of Nursing must complete only those courses outlined in their respective curriculums. General Psychology is not required of students majoring in Engineering Physics.

**History.** Completion of either History 101, 102, 103 or 201, 202, 203 is required except for students in the School of Nursing.

9

**Religion.** Students who submit two or more units of Bible

from an academy will complete 18 credits in college. Students who have completed less than two units of Bible in academy, and those transferring from non-Seventh-day Adventist colleges will take two credits each quarter in college. Religion 201, 202, 203 or the equivalent is required of all students. Students who enter college with fewer than two units in religion should begin their religious studies with courses 101, 102, 103.

Additional credits are to be chosen from the following courses: 104, 105, 106; 141, 142, 143; 221, 222, 223; 321, 322, 323; 341, 342, 343; 364, 365, 366; 421, 422, 423 or 427, 428; 426; 444, 445; 464, 465, 466. Students in the School of Nursing complete only those courses outlined in their respective curriculums.

18-24

#### **PHYSICAL EDUCATION AND HEALTH**

**Health.** Completion of the course Health Principles or waiver by examination during the freshman year.

3

**Physical Education.** Physical Education is required of all students under 30 years of age. Veterans who have completed basic training are exempt from Physical Education upon presentation of discharge papers.

3

#### **APPLIED ARTS**

**Vocation.** Completion of nine credits of courses in which the primary objective is the development of a manual skill, or satisfactory employment for a minimum of two hundred and seventy hours during a given academic year in one of the College's auxiliary departments or an approved establishment in the community. Those choosing the first option may elect any laboratory course in Home Economics or Industrial Education, or courses in Accounting, Engineering Drawing, Library Science, Shorthand, and Typewriting. A minimum of six credits must be completed in one department. Those choosing the second option are required to file a statement of their intention at the beginning of the academic year in which the employment is proposed and must present evidence of satisfactory employment before the applied arts course requirement may be waived. Students in the School of Nursing and in Medical Technology are exempt from the applied arts requirement.

9

#### **BACHELOR OF MUSIC—BACHELOR OF SCIENCE IN ENGINEERING**

Candidates for professional degrees are not required to meet all general education requirements because of the heavy concentration of professional courses that must be completed. Students wishing to receive the Bachelor of Music degree or the Bachelor of Science in Engineering degree must follow the curriculum as outlined under Music and Engineering, respectively, in the section Departments of Instruction. The physical education and religion requirements are the same as for other baccalaureate degrees.

#### **SECOND BACHELOR'S DEGREE**

Two different degrees may be conferred at the same time if the can-

didate has met the requirements of both degrees, and has completed a total of 237 credits. However, a student wishing to receive a second degree after one degree has been conferred must complete 45 additional credits and be in residence an additional three quarters. The College does not grant a second degree of the same type to any student.

## **MUSIC CREDIT ALLOWED ON DEGREES**

Students who are not majoring or minoring in music may use nine credits of applied music, including three credits in ensemble, in meeting degree requirements. Thereafter, one credit in music classwork must be completed for each credit in applied music, with a maximum of eight additional credits in ensemble.

## **GRADUATION**

Degrees are conferred twice each year, June and August. Candidates for degrees are required to be present for graduation. The president may grant permission for graduation *in absentia* when all requirements have been met and circumstances warrant this.



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# PRE-PROFESSIONAL COURSES OF STUDY

THE College offers courses which are prerequisite for admission to professional or technical schools. Students wishing to secure admission to such schools should familiarize themselves with the admission requirements of the school of their choice. Pre-professional courses of study are offered for the professions hereinafter listed.

## PRE-DENTAL

The minimum requirement for admission to the study of dentistry is two years of college. However, most dental schools expect candidates for admission to have completed three to four years of college. A total of 90-96 credits is required, and should include the following:

Embryology	5
English	9
General Biology or Zoology	12
Inorganic Chemistry	15
Organic Chemistry	9-12
Physics	12

Some schools require nine credits in a foreign language and three to six credits of Quantitative Analysis.

## PRE-DENTAL HYGIENE

Women planning for careers in dental hygiene must complete ninety credits with a cumulative grade-point average of 2.00 or above before seeking admission to the dental hygiene curriculum of the School of Dentistry, Loma Linda University. The following credits are required:

Anatomy and Physiology	10
Freshman Composition	9
General Chemistry	9
History of the United States	9
Microbiology	5
Physical Education	1½

Psychology	9
Religion	12
Social Science	5
Speech	4
Electives in Literature and Social Science	16½

## PRE-LAW

Students wishing to study law may enroll at the College for three years and then enter upon a combined-cooperative degree program at the Willamette University College of Law. Qualifying students may be awarded the Bachelor of Arts degree by Walla Walla College upon satisfactory completion of the first year of law school. Upon completion of the law school curriculum the student may receive the Bachelor of Laws from Willamette University.

While at college, the student must complete a major in Business Administration, satisfy degree and general education requirements, and complete at least six credits in speech and three credits in political science. A minimum of 147 credits with a grade-point average of 2.5 or above is required.

## PRE-MEDICAL

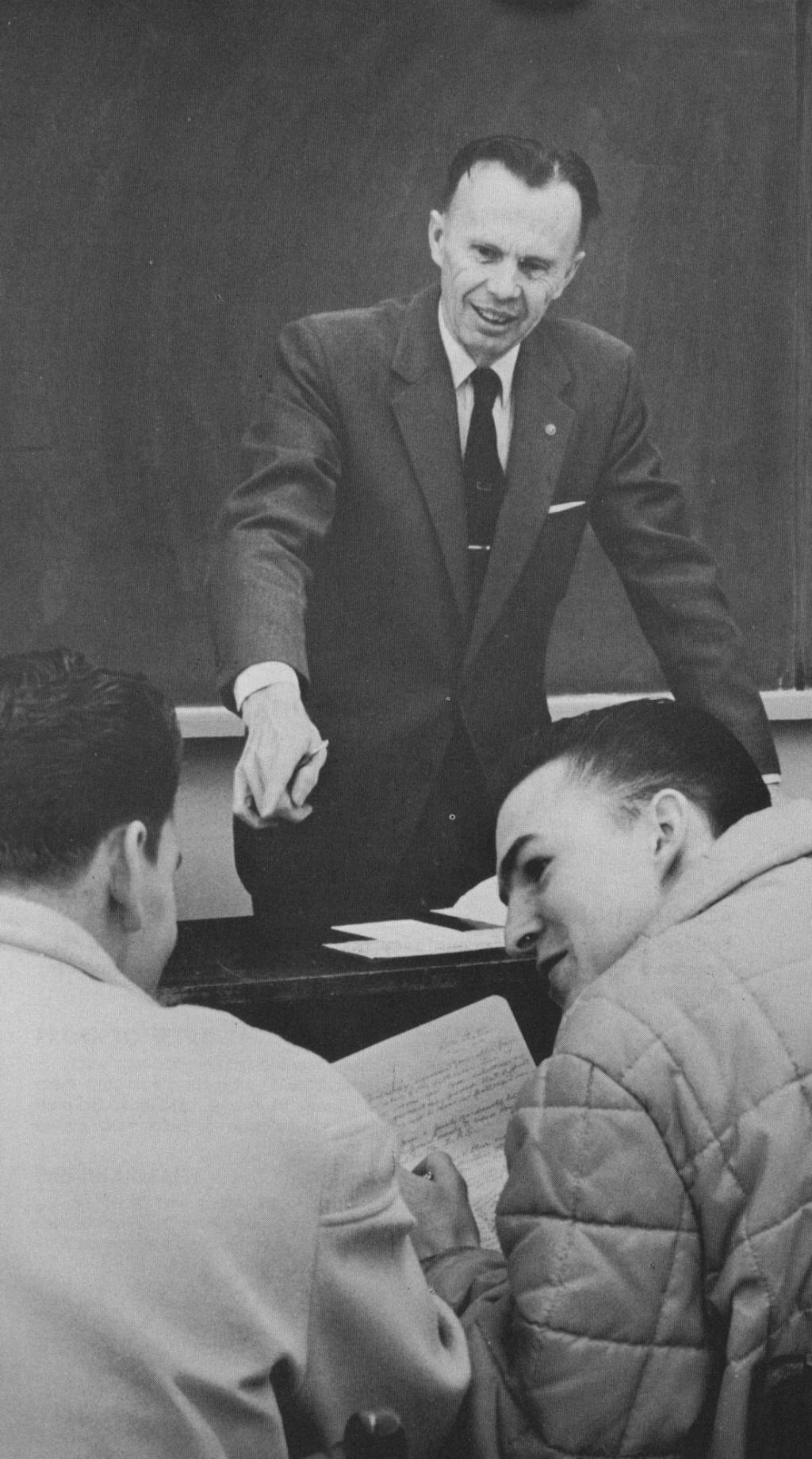
Most medical schools require completion of 192 credits with a grade-point average of 2.5 or above, computed separately for science and non-science courses. The following credits are normally required:

Embryology	5	Inorganic Chemistry	15
English	9	Organic Chemistry	9-12
Foreign Language	9	Physics	12
General Biology or Zoology	12	Quantitative Analysis	3-6
		Religion	18

## PRE-MEDICAL TECHNOLOGY

Students wishing to become medical technologists or laboratory technicians may complete the first three years at the College and transfer to the Portland Sanitarium and Hospital or other approved hospitals for the fourth year. Candidates who plan to go to hospitals other than the Portland Sanitarium and Hospital must submit their request to the Academic Standards Committee for approval if they wish to obtain a degree from Walla Walla College. Upon completion of the fourth year, the student may receive a Bachelor of Science degree. The following courses must be completed:

First Year		Second Year	
Biological Science 101, 102, 103	12	Biological Science 281, 282-283	13
Chemistry 141-142-143	15	Chemistry 263	3
Education 110	2	Education 120	3
English 101-102-103	9	Health 110	3
Mathematics 120	4	History 201, 202, 203	9
Physical Education	1½	Literature or Speech	4
Religion	6	Physical Education	1½
		Religion	6
		Electives	6



## **ACCOUNTING**

**Problem of problems:** Accountancy takes on a form of reality in the classroom when nimble minds combine their efforts to solve live business problems.

<b>Third Year</b>		<b>Fourth Year</b>
Biological Science 107 or 465	5	
Chemistry 301-302-303 or 324-325-326	9-12	At Portland Sanitarium and Hospital
Chemistry 406	4	
Literature	5	
Physics	12	
Religion (UD)	6	
Electives (UD)	4-7	

Students majoring in Medical Technology must meet all degree and general educational requirements except nine credits in Applied Arts. During the third year the student must earn at least 30 credits upper division.

## **PRE-NURSING**

At least four quarters of college are required to prepare a student for the clinical instruction. Candidates who plan to enter the Portland Sanitarium and Hospital may find the required courses listed on page 132 of this Bulletin. Candidates who plan to enter other hospitals for their clinical experience should write directly to the director of the nursing school of their choice and ask for specific requirements.

**NOTE:** Most students choose the Bachelor of Science with a curriculum in Nursing listed in this bulletin under the section, School of Nursing. Write the Registrar, Walla Walla College, College Place, Washington, for complete information.

## **PRE-OCCUPATIONAL THERAPY**

Students who are preparing for the Bachelor of Science degree in Occupational Therapy should plan to complete 93 quarter credits before entering the professional training. The following curriculum is recommended:

Biological Science	15
Chemistry	9
English	9
History of the United States	9
Physical Education	3
Psychology	9
Religion	12
Sociology	3
Speech	4
Electives	20

## **PRE-OPTOMETRY**

One year of general college work may be applied to the curriculum of most optometry schools. The first year is generally the same as for pre-medical students. Students should consult with the college of optometry which they wish to enter about courses required.

## **PRE-PHARMACY**

At least two years of general college work are required. Students should consult with the college of pharmacy which they wish to enter about courses required. The following should be included:

Bacteriology	5	Organic Chemistry	10
Botany	3	Physical Education	2
English	9	Physiology	5
General Physics	12	Psychology	3
Health Principles	3	Quantitative Chemistry	5
Inorganic Chemistry	15	U. S. History	9
Mathematics	8	Zoology	9

All pharmaceutical colleges require three years in residency beyond the two years of pre-pharmacy; some require four years.

### PRE-PHYSICAL THERAPY

The minimum requirements are completion of 93 credits. The student should consult the counselor for pre-physical therapy. Two years of regular college courses are required and the following are suggested:

Biological Science*	15
English	9
Introductory Chemistry and Laboratory	9
Physical Education	3
Psychology**	9
Religion	12
Speech	3
United States History	9
Electives	24

\*Suggested courses are General Biology and Comparative Anatomy or Microbiology.

\*\*May include Human Growth and Development.

### PRE-VETERINARY

There are eighteen colleges of veterinary science in the United States. Since their basic requirements are not exactly the same, the student should confer with the college of his choice. The following will generally meet the pre-professional requirements:

Biological Science	6
Freshman Composition	9
General Biology	12
General Physics	12
History of the U. S.	9
Inorganic Chemistry	15
Intermediate Algebra	4
Intro. to Organic Chemistry	6
Social Science	3
Speech	3
U. S. Government	3
Zoology	12

### PRE-X-RAY TECHNOLOGY

Forty-five credits are required for admission to most schools of X-ray technology. College courses should be chosen to remove high school deficiencies in mathematics and science, if such exist. Courses such as anatomy and physiology, chemistry, general psychology, general physics, mathematics, and, whenever possible, typing should be included.

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## DEPARTMENTS OF INSTRUCTION

**T**HIS section contains a list of all courses offered in the College. The departments are arranged in alphabetical order. The curriculums and courses offered in the School of Theology and the School of Nursing begin on pages 127 and 131, respectively.

Courses numbered 100-199 are normally taken by freshmen; those from 200-299 are normally taken by sophomores; those from 300-499 by juniors and seniors; and those 500 and above by graduate students. Seniors with exceptional scholarship may be admitted to graduate courses on approval of the instructor.

The description of courses in each department includes: (1) the number of the course as used in the College records; (2) the title of the course; (3) a brief description of course content; (4) the number of credits given; (5) the quarter in which it is given.

The credit indicated in connection with each course is the "quarter credit," and one credit represents one recitation period per week for one quarter. The number of credits listed is for each quarter. Thus, "Three credits; autumn, winter, spring," means three credits each quarter, or a total of nine credits for the year.

Two or three numbers connected with hyphens indicate courses which must be completed in their entirety. Only upon permission of the chairman of the department and the Academic Standards Committee may credit be obtained for a single quarter of study in a hyphenated course.

The College reserves the right to withdraw temporarily any course which does not have an adequate enrollment. A course may not be offered for fewer than six students except in the case of seniors or graduate students.

Courses preceded by an \* are not offered in the current year.

# ART

## MR. MACKINTOSH

The aim of the Art Department is to cultivate an awareness, appreciation and understanding of the various forms of visual experience, and through instruction and practice help the student develop his creative abilities and appreciation.

### MINOR REQUIREMENTS:

Design	161-162-163	9
Drawing	181, 182-183	3
History & Appreciation of Art	321, 322, 323	6
Special Problems	477, 478, 479	3
Electives (Counsel with the department chairman)		6

27

### TEACHING MINOR:

The teaching minor of 25 credits must be taken with the required education courses and cognates for state teacher certification. Counsel with the chairman of the department for choice of courses.

## COURSES

\*145. **ART FORMS AND TECHNIQUES.** A representational approach including basic concepts of line, value, color, proportion, perspective, and composition with emphasis on the teaching of art. Two credits; summer only. (25)

161-162-163. **DESIGN.** An intensified study of the basic elements of design aiming to develop cognizance of visual organization. Three credits; autumn, winter, spring. (31, 32, 33)

181, 182-183. **DRAWING.** An experience in the use of line with representational and abstract approaches through application to still life and portraiture. One credit; autumn, winter, spring. (41, 42, 43)

201, 202, 203. **PAINTING.** To develop the aesthetic enjoyment and understanding in the application of paint, whether the media be oil, casein, or tempera. Prerequisite: 181, 182, 183, or equivalent. Two credits; autumn, winter, spring. (51, 52, 53)

\*221, 222, 223. **COMMERCIAL ART.** Our modern need to "Tell and Sell" requires the study of illustration and production planning for such subjects as advertisements, book pages, posters and brochures. Three credits; autumn, winter, spring. (61, 62, 63)

261-262-263. **SCULPTURE.** The study and application of three dimensional forms in space using varied media such as plaster, wood, plasticene and paper. One credit; autumn, winter, spring. (81, 82, 83)

\*Not offered the current year.

**301, 302, 303. ADVANCED DESIGN.** Application of the basic principles and elements of design to be used in various fields of art. Prerequisite: 161-162-163. Three credits: autumn, winter, spring. (91, 92, 93)

**306. SCHOOL ART.** A course to prepare the teacher to direct in the schoolroom activities such as clay modeling, poster making, art, lettering, crayola, pencil, watercolor, crafts, and application. Three credits; spring. (106)

307, 308, 309, **ADVANCED DRAWING.** A utilization of the basic principles of drawing with various experimental approaches. Prerequisite: 181, 182, 183. Two credits; autumn, winter, spring. (101, 102, 103)

**321, 322, 323. HISTORY AND APPRECIATION OF ART.** The study of the great periods in history of art, their causes and developments; the relation between art and society. Two credits; autumn, winter, spring. (111, 112, 113)

**477, 478, 479. SPECIAL PROBLEMS IN ART.** Individual student projects chosen and carried out under the direction of the chairman of the department. Open to minors only. One to three credits any quarter. Maximum, three credits. Autumn, winter, spring. (191, 192, 193)

# BIBLICAL LANGUAGES

MR. LITKE, MRS. KNAPP

In its objective, the department aims to provide theological students with tools for scholarly research and to enable them to read the Bible in the original. The major in Biblical languages is intended for those who would like to increase their proficiency in Biblical study and research, as well as for those who may look forward to the teaching of these languages.

## MAJOR REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

A minimum of 45 credits. The following cognates are also required:  
Religion 444, 445, 446 and History 321.

## MINOR REQUIREMENTS:

A minimum of 30 credits. Religion 446 is also required.

## COURSES

101-102-103. **GREEK I.** An introductory study of the elements of New Testament Greek with experience in translation. This course emphasizes the development of the ability to read the original language, and at the same time aims to create an interest in the New Testament. Readings of selected portions, mainly from the First Epistle of John. Five credits; autumn, winter, spring. (1-2-3)

221, 222, 223. **GREEK II.** Intensive reading in the Greek New Testament with emphasis upon principles of interpretative translation. The book of Revelation and selections from the Gospels are used in developing a facility in translation. Three credits; autumn, winter, spring. (61, 62, 63)

341, 342, 343. **DOCTRINAL EPISTLES OF PAUL.** An exegetical study of the great doctrinal epistles of Paul. Selections from the letters to the Corinthians, Romans, and Galatians are especially studied as examples of the apostle's theological writings. Two credits; autumn, winter, spring. (121, 122, 123)

\*344, 345, 346. **LATER EPISTLES OF PAUL.** An exegetical study of examples of Paul's later letters, especially the so-called prison epistles. Selections from the letters to Timothy, Titus, and the Ephesians are studied as typical of this period of the apostle's life. The epistle to the Hebrews is also considered, with emphasis upon its relationship to the other epistles. Two credits; autumn, winter, spring. (124, 125, 126)

441-442-443. **HEBREW I.** An introductory course in Biblical Hebrew. Emphasis is placed upon an intensive study of the grammar of this ancient language. The student is taught the ability to read from the Hebrew Bible and to use lexical materials. Three credits; autumn, winter, spring. (171-172-173)

477, 478, 479. **SPECIAL PROBLEMS IN BIBLICAL LANGUAGES.** Directed, independent study in an approved area. The student will be required to read widely on an assigned subject, follow regular research methods and present a paper showing competence in and extent of his study. Open only to majors and minors. Permission from the chairman of the department required. One to three credits any quarter. Maximum, three credits. Autumn, winter, spring. (191, 192, 193)

\*Not offered the current year.

## BIOLOGICAL SCIENCES

MR. COFFIN, MR. BLAKE, MR. GROVES, MR. RIGBY, MR. STOUT

The department offers a major and a minor in biology. Courses are offered on the main campus, at the Biological Station, and in the Field School of Biology. Graduate work leading to the Master of Arts degree is also offered. For further information see the bulletin of the Graduate Division.

Exceptional opportunities for study in the Biological Sciences are possible during the summer at the Biological Station at Rosario Beach adjoining Deception Pass State Park, Anacortes, Washington. Facilities at the station include laboratories, adequate living accommodations, motor-boats, seines, dredges, salt and fresh water aquaria. For further information see the bulletin of the Biological Station.

The Field School of Biology travels to various parts of North America and offers courses in botany and zoology. Sessions are occasionally scheduled during the summer or winter quarters.

### BIOLOGY MAJOR—REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

General Biology	101, 102, 103	12
Comparative Anatomy	281	5
Physiology	282-283	8
Vertebrate Embryology	303	5
Plant Anatomy	306	4
Paleontology	409	4
Genetics	422	4
Systematic Botany	426	4
Seminar in Research Methods	491-492-493	3
Electives		6
		55

Majors in biology must complete a minimum of 24 upper division credits and must attend at least one summer term at the Biological Station. Chemistry 141-142-143 or 144-145-146 is required.

### MAJOR REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE:

Candidates for this degree must complete the requirements for a Biology major; in addition they must also complete the following courses in other departments: Chemistry 141-142-143; Physics 181, 182, 183; Mathematics 120, 130; and courses through second year French or German. The minor must be taken in Chemistry, Physics, or Mathematics.

### MINOR REQUIREMENTS IN BIOLOGY:

A minimum of 27 credits including eight upper division credits. Course 101, 102, 103 is required. Four of the remaining credits must be in botany.

### TEACHING MAJOR AND MINOR:

The teaching major of 45 credits and the teaching minor of 25 credits

must be taken together with the required education courses and cognates for state teacher certification. The required courses in this department are:

**Major:**

General Biology	101, 102, 103	12
Elementary Physiology	104	5
Natural History of Vertebrates	389	5
Paleontology	409	4
Genetics	422	4
Systematic Botany	426	4
Electives (Counsel with the department chairman.)		
Seven credits must be upper division)		11
One term at the Biological Station is strongly recommended.		

**Minor:**

General Biology	101, 102, 103	12
Philosophy of Science	407	3
Electives, upper division (Counsel with the department chairman.)		10

## COURSES

101, 102, 103. **GENERAL BIOLOGY.** A study of the basic principles of biology. Topics such as anatomy, physiology, cytology, genetics, taxonomy, ecology, and embryology are considered with reference to both plants and animals. One laboratory per week. Four credits; autumn, winter, spring. (1, 2, 3)

104. **ELEMENTARY PHYSIOLOGY.** A study of the elements of the functioning of the major organ systems with emphasis on human physiology. Will apply on the biology teaching major only. One laboratory per week. Five credits; autumn. (4)

107. **MICROBIOLOGY.** The nature of bacteria and disease-producing organisms with their habits and methods of reproduction and the relation of these organisms to disease in the human body are studied. One laboratory per week. Five credits; autumn. (7)

202-203. **ANATOMY, PHYSIOLOGY, AND HEALTH.** A survey of human anatomy and physiology is given. Health principles will be integrated in this course. One laboratory per week. Five credits; winter, spring. (52-53)

281. **COMPARATIVE ANATOMY.** A study of the comparative anatomy of chordates with emphasis on the vertebrates. Detailed dissections of the shark and cat are made in the laboratory. Prerequisite: 101, 102, 103. Two laboratories per week. Five credits; autumn. (91)

282-283. **PHYSIOLOGY.** A course primarily designed for biology majors. The basic principles of physiology are discussed in the framework of the principal vertebrate organ systems. Prerequisite: 281; beginning chemistry courses strongly recommended. One laboratory per week. Four credits; winter, spring. (92-93)

Course 101, 102, 103 is a prerequisite for all upper division courses.

303. **VERTEBRATE EMBRYOLOGY.** A detailed study of the embryology of the frog, chick, and pig, with emphasis on their relation to human embryology. Two laboratories per week. Five credits; spring. (103)

306. **PLANT ANATOMY.** A study of the microscopic anatomy of plant tissues with emphasis on their origin and development. The whole plant kingdom is considered, but the vascular plants will receive major attention. One laboratory per week. Four credits; spring. (106)

389. **NATURAL HISTORY OF VERTEBRATES.** A study of vertebrates with emphasis on natural history, ecology, and taxonomy of birds and mammals. Two laboratories per week. Will apply on the biology teaching major only. Four credits; spring. (151)

403. **ORNITHOLOGY.** A systematic study of native birds of North America, with emphasis on identification, migration, geographical distribution, habits and life histories. Two laboratories per week. Four credits; spring. (149)

406. **GENERAL ENTOMOLOGY.** A study of insect morphology, ecology, and classification. Two laboratories per week. Four credits; spring. (156)

407. **PHILOSOPHY OF SCIENCE.** A study of origins of living things of special creation as opposed to evolution, the Flood, glaciation, problems of species, and distribution of plants and animals. Does not apply on a biology major. Three credits; autumn. (157)

409. **PALEONTOLOGY.** A study of plant and animal fossils, with a survey of the principles of geology. One laboratory per week. Four credits; spring. (159)

422. **GENETICS.** A study of the principles of inheritance in plants and animals, especially man. Four credits; winter. (162)

\*424. **HERPETOLOGY.** A systematic study of amphibians and reptiles with emphasis on natural history and ecology. Two laboratories per week. Four credits; autumn. (164)

425. **MORPHOLOGY OF PLANTS.** Detailed studies of the type forms of the Thallophytes, Bryophytes, Pteridophytes and Spermatophytes. One laboratory per week. Four credits; autumn. (106)

426. **SYSTEMATIC BOTANY.** Principles of classification of plants with emphasis on the angiosperms. Two laboratories per week. Four credits; spring. (166)

429. **LIMNOLOGY.** A study of the factors responsible for the presence and distribution of animals and plants in fresh waters. Field work includes trips to a number of lakes and streams for collection of living specimens as well as habitat analysis. Four credits; summer (WWC Biological Station.) (169)

441. **MICROTECHNIQUE.** A course designed to cover the important methods of making microscope slides. Two laboratories per week. Three credits; autumn. (172)

444. **MAMMALOGY.** A systematic study of mammals with emphasis on natural history and ecology. Two laboratories per week. Four credits; autumn. (174)

446. **GENERAL ECOLOGY.** A course designed to cover the basic principles of ecology with reference to both plants and animals. Field trips to nearby areas illustrating these principles are a part of the laboratory work. Four credits; summer (WWC Biological Station). (176)

\*Not offered the current year.

448. **PARASITOLOGY.** A systematic study of the morphology, life cycle, and the medical aspects of the protozoan, arthropod, and worm parasites of the vertebrates with more emphasis on human parasitology. Two laboratories per week. Five credits; winter. (177-178)

449. **VERTEBRATE HISTOLOGY.** The microscopic anatomy of vertebrate cells, tissues and organs including reference to their functions. Two laboratories per week. Four credits; spring. (179)

461. **INVERTEBRATE ZOOLOGY.** A study of the invertebrate animals of Puget Sound with emphasis on systematics and natural history. Four credits; summer (WWC Biological Station).

462. **ICHTHYOLOGY.** A systematic study of the fishes found in Puget Sound, with a survey of the fishes of other waters. Four credits; summer (WWC Biological Station). (182)

463. **MARINE BOTANY.** A systematic study of plants found in Puget Sound, with a survey of marine plants from other areas. Four credits; summer (WWC Biological Station). (183)

464. **ANIMAL BEHAVIOR.** A comparative study of the behavior of animals with emphasis on an experimental analysis of behavior. A research project will be required. Four credits; summer (WWC Biological Station).

\*465. **BACTERIOLOGY.** A presentation of the basic principles necessary for an understanding of morphology and function of bacteria. Laboratory work, including unknowns, points out techniques employed in their study. Two laboratories per week. Five credits; winter. (185)

466. **SYSTEMATIC ENTOMOLOGY.** A study of the principles of taxonomy as applied to entomology. Laboratory work emphasizes orders and families. Four credits; spring.

467. **BIOLOGICAL OCEANOGRAPHY.** A study of the geology, geography, and biology of the ocean. Four credits; summer (WWC Biological Station). (187)

468. **COMPARATIVE PHYSIOLOGY.** A study of the physiology and life processes of marine animals with emphasis on invertebrates. Prerequisite: 282-283. Four credits; summer (WWC Biological Station). (188)

472. **METHODS OF TEACHING BIOLOGY.** This course deals with the basic principles of teaching biology in the secondary school. Observation, demonstration, and class presentation are required of the students as a part of this course. Three credits; winter. (197)

477, 478, 479. **SPECIAL PROBLEMS IN BIOLOGICAL SCIENCE.** Directed, independent study in an approved area. The student will be required to read widely on an assigned subject, follow regular research methods, and present a paper showing competence in and extent of his study. Open only to majors and minors. Permission from the chairman of the department required. One to three credits any quarter. Maximum, three credits. Autumn, winter, spring. (191, 192, 193)

488. **FISHERIES BIOLOGY.** A study of marine and fresh water fisheries with emphasis upon fishery surveys and research methods, observation of hatchery and commercial fishing methods, and study of problems involved. Prerequisite: 462. Four credits; summer (WWC Biological Station). (198)

\*Not offered the current year.

491-492-493. **SEMINAR IN RESEARCH METHODS.** A study of biological literature, with emphasis on the research paper; methods of gathering data; methods of compiling data; methods of writing the finished paper; presentation of an acceptable research paper. One credit; autumn, winter, spring. (194-195-196)

501. **RESEARCH IN BIOLOGY.** Individual work in a topic of original research carried out under the direction of one of the instructors. Two to four credits per quarter, maximum credits eight. (201)

504-505-506. **GRADUATE SEMINAR.** Presentation of topics of current interest in biological science, followed by discussion. Each class member prepares a lecture as if for presentation before a scientific society meeting. One credit; autumn, winter, spring. (204-205-206)

508. **GENETICS AND EVOLUTION.** Advanced study and evaluation of the evolutionary theory; preparation of material on scientific philosophy for publication. Prerequisite: 407, 422. Three credits; winter. (208)

522. **CELLULAR BIOLOGY.** Current knowledge and research in the areas of cell physiology, biochemical genetics, bacteriological genetics, and radiation biology will be considered. Prerequisite: 282-283. Four credits; winter. (212)

524. **MARINE INVERTEBRATES.** An advanced study of invertebrate animals, with emphasis on marine forms. Individual research projects are required. Four credits; summer (WWC Biological Station). (181)

539. **HELMINTHOLOGY.** A detailed study of the more common helminth parasites of animals is undertaken. Emphasis is given to current areas of research in helminthology. Basic techniques of importance in laboratory work with helminths are covered. Prerequisite: 448. Two laboratories per week. Four credits; spring. (229)

545. **THESIS.** Preparation of the master's dissertation after successfully carrying out original study with a suitable topic to be selected after consultation with the major professor. Eight credits. (235)

# BUSINESS AND ECONOMICS

MR. MEHLING, MR. JONES, MR. SLOOP, MR. WHITE

The objective of the department is to offer students opportunity for the general education and specialized training necessary for success in society at large as well as in the business world. Courses offered in the department are designed to prepare for denominational service, civil service, business and industry.

## MAJOR REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

Principles of Accounting	131-132, 133	9
Intermediate Accounting	231, 232, 233	9
Business Law	241-242-243	6
Principles of Economics	261-262, 263	9
Upper division electives		21
		54

## MAJOR REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE:

Principles of Accounting	131-132, 133	9
Intermediate Accounting	231, 232, 233	9
Business Law	241-242-243	6
Principles of Economics	261-262, 263	9
Cost Accounting	331	5
Upper division electives		33
		71

### Required Cognates:

Students majoring in Business Administration must demonstrate proficiency in typing. Mathematics 120 or the equivalent is also required.

## MINOR REQUIREMENTS:

Principles of Accounting	131-132, 133	9
Principles of Economics	261-262, 263	9
Electives, upper division		9
		27

## MINOR IN ECONOMICS:

Principles of Economics	261-262, 263	9
Price Theory	361	5
Aggregate Economic Analysis	362	5
Development of Economic Thought	366	5
Money and Banking	463	5
		29

## TEACHING MAJOR AND MINOR:

The teaching major of 45 credits and the teaching minor of 27 credits must be taken together with required education courses and cognates for state teacher certification. The required courses in this department are:

**Major:**

Principles of Accounting	131-132, 133	9
Intermediate Accounting	231, 232, 233	9
Business Law	241-242-243	6
Principles of Economics	261-262, 263	9
Cost Accounting	331	5
Money and Banking	463	5
Electives, upper division		2

**Minor:**

Principles of Accounting	131-132, 133	9
Principles of Economics	261-262, 263	9
Electives, including 3 upper division		9

(Counsel with the department chairman.)

**COURSES**

131-132, 133. **PRINCIPLES OF ACCOUNTING.** Introduction to accounting; books of original entry; ledgers; statements of condition and of operations. Course 131-132 prerequisite to 133. Three credits; autumn, winter, spring. (14-15, 16)

135-136. **PRINCIPLES OF ACCOUNTING.** Introduction to accounting; books of original entry; ledgers; statements of condition and of operations. Five credits, winter; four credits, spring. (18-19)

230. **MACHINE ACCOUNTING.** Training in the operation of the National Bookkeeping machines as applied to various accounting systems. Prerequisite: 131-132, 133. One credit; autumn. (97)

231, 232, 233. **INTERMEDIATE ACCOUNTING THEORY.** Autumn quarter is devoted to a study of the construction, analysis and interpretation of the financial statement and reports prepared from accounting records. Winter and spring quarters relate to a study of basic accounting procedures employed in balance sheet evaluation and profit determination. Further study of funds, inventories, reserves, contingent liabilities and partnership accounting. Prerequisite: 131-132, 133. Three credits; autumn, winter, spring. (71-72-73)

241-242-243. **BUSINESS LAW.** Fundamentals of law which affect business transactions. Emphasis on contracts, agencies, negotiable instruments, landlord and tenant relationship, personal property, and corporations. Two credits; autumn, winter, spring. (61-62-63)

261-262, 263. **PRINCIPLES OF ECONOMICS.** General principles of economics and their application to our present industrial organization and social life. A study of the factors of production; organization of marketing and transportation; principles of money and banking; distribution of wealth; taxation; and problems of labor. Three credits; autumn, winter, spring. (91-92-93)

321, 322, 323. **MARKETING AND ADVERTISING.** A study of the principles underlying marketing and market organizations in connection with the psychology and science of advertising. Two credits; autumn, winter, spring. (121, 122, 123)

331. **COST ACCOUNTING.** Theory and practice in keeping cost records for manufacturing concerns. Job order, process, and standard cost systems. Prerequisite: 131-132, 133. Five credits; autumn. (144)

335. **TAX PROCEDURE.** A study of tax regulations and accounting records necessary to facilitate proper tax accounting and the determination of tax liability for individuals, partnerships, and corporations. Three credits; winter. (172)

\*336. **ACCOUNTING SYSTEMS.** A study of diversified accounting systems, system construction and installation procedures. Prerequisite: 231, 232, 233. Three credits; spring. (146)

\*344. **PRINCIPLES OF INSURANCE.** A study of insurance contracts, underwriting organizations, and insurance representation and procedures. Three credits; autumn. (131)

\*346. **REAL ESTATE.** A survey course in the basic principles and problems of real estate management and appraisal. Three credits; spring. (136)

361. **PRICE THEORY.** A study of the structure of markets; the determination of prices; the relations of price and cost; income and its functional distribution in a capitalistic economy. Prerequisite: 261-262, 263. Five credits; autumn.

362. **AGGREGATE ECONOMIC ANALYSIS.** Analysis of the determinants of the aggregate level of employment, output, and income of an economy. Prerequisite: 261-262, 263. Five credits; winter.

366. **DEVELOPMENT OF ECONOMIC THOUGHT.** A study of the history of economic doctrine, tracing the origins of contemporary economic theory. Prerequisite: 361, 362. Five credits; spring.

376. **BUSINESS FINANCE.** A study of the fundamental principles of financial policy in the organization and management of corporate enterprises. Three credits; spring. (163)

411. **STATISTICS.** This course stresses an understanding of basic statistical principles and their applications. Graphic presentations, distributions, probabilities, index numbers, correlations and statistical decision making are studied. Prerequisite: Mathematics 120 and 130 or consent. Three credits; spring. (196)

414. **BUSINESS MANAGEMENT.** A study of the internal organization of the business enterprise; problems of planning, coordination and production management. Three credits; autumn. (161)

431, 432, 433. **ACCOUNTING PROBLEMS.** Studies in equities and control of assets in C.P.A. type problems. Prerequisite: 24 credits of accounting. Three credits; autumn, winter, spring. (177, 178, 179)

\*434. **FUND ACCOUNTING.** A study of the application of accounting principles to trust funds, pledged funds, sinking funds, special tax funds and general funds accumulated for special purposes such as plant extension, debt retirement and operation of non-profit enterprises. Three credits; autumn. (174)

439. **AUDITING PROCEDURE.** A survey of practical auditing procedure as applied in the verification of accounting records, and the preparation and presentation of formal reports. Prerequisite: 231, 232, 233 or permission from the instructor. Three credits; spring. (176)

452. **HUMAN RELATIONS IN MANAGEMENT.** A survey of the human relations problems found in industry today. Three credits; winter. (165)

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\*Not offered the current year.

463. **MONEY AND BANKING.** A study of the functional activities of the institutions which comprise our financial system; emphasizing the nature and functions of money, credit, and banking. Five credits; spring. (186)

477, 478, 479. **SPECIAL PROBLEMS IN BUSINESS ADMINISTRATION.** Directed, independent study in an approved area. The student will be required to read widely on an assigned subject, follow regular research methods, and present a paper showing competence in and extent of his study. Open only to majors and minors. Permission from the chairman of the department required. One to three credits any quarter. Maximum, three credits. Autumn, winter, spring. (191, 192, 193)

492. **SEMINAR.** Individual study of problems in the field of business or economics. Open only to majors in business. One credit; winter. (198)

# CHEMISTRY

MR. JONES, MR. BOWERS, MR. CHAMBERS, MR. SHANKEL

## MAJOR REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

Inorganic Chemistry	141-142-143	15
Organic Chemistry	324-325-326	12
Elementary Quantitative Analysis	244-245-246	9
Electives		12
		48

A minimum of 21 upper division credits is required. Physical Chemistry 401-402, 403 is strongly recommended. Any minor may be chosen. The following courses are also required:

Mathematics 120; Physics 181, 182, 183 or 201, 202, 203.

## MAJOR REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE:

Inorganic Chemistry	141-142-143	15
Analytical Chemistry	244-245-246; 461, 462 or 463	15
Organic Chemistry	321-322-323	15
Physical Chemistry	401-402, 403	12
Special Problems	478 or 479	2-3
Electives		4-7
	Minimum	63

A double minor in mathematics and physics is recommended. Regardless of the minor the following are required:

Mathematics 120, 130, 181, 182, 183, 184; Physics 201, 202, 203.

## MINOR REQUIREMENTS:

A minimum of 27 credits including at least 3 credits in analytical and 15 in inorganic chemistry.

## TEACHING MAJOR AND MINOR:

The teaching major of 45 credits and the teaching minor of 28 credits must be taken together with the required education courses and cognates for state teacher certification. The courses required in this department are:

### Major:

Inorganic Chemistry	144-145-146	12
Elementary Quantitative Analysis	244-245-246	9
Organic Chemistry	301-302-303 or 324-325-326	9-12
Biochemistry	406	4
Special Problems	477, 478 or 479	1
History of Chemistry	486	2
Electives, including 2-5 upper division		8

Physical Chemistry 401-402, 403 is recommended.

In order to prepare a teacher adequately in this field, the following related courses must also be completed. No minor is required.

College Algebra	120	4
General Physics	181, 182, 183	12
	or	
Introductory Physics	201, 202, 203	12
General Biology	101, 103	8



## **IN COLUMBIA AUDITORIUM**

**Intramural sport provides pleasure and health—a sound body for a sound mind. Numerous games and sports are open to all students.**

**Minor:**

Inorganic Chemistry	144-145-146	12
Quantitative Analysis	263	4
Organic Chemistry	301-302-303 or 324-325-326	9-12
Biochemistry	406	4

**COURSES**

**101-102-103. INTRODUCTORY CHEMISTRY.** An introductory course in chemistry covering the fields of inorganic, organic, and bio-chemistry. Does not apply on a major or minor. Two lectures, one laboratory per week. Three credits; autumn, winter, spring. (1-2-3)

**141-142-143. INORGANIC CHEMISTRY.** A systematic study of typical metals and non-metals together with a survey of all the elements. Emphasis is placed on fundamental principles and theories. Mathematics 120 prerequisite or taken concurrently. Three lectures and five to six hours laboratory per week. Five credits; autumn, winter, spring. (21-22-23)

**144-145-146. INORGANIC CHEMISTRY.** Lecture same as 141-142-143, but only one laboratory per week. Four credits; autumn, winter, spring. (25-26-27)

**244-245-246. ELEMENTARY QUANTITATIVE ANALYSIS.** Fundamental principles and laboratory practices in both gravimetric and volumetric analysis. Prerequisite: 141-142-143 and Mathematics 120. Two lectures, one laboratory per week. Three credits; autumn, winter, spring. (74-75-76)

**263. QUANTITATIVE ANALYSIS.** Introduction to the principles of quantitative analysis illustrated with representative gravimetric and volumetric determinations. Does not apply on a major. Prerequisite: 141-142-143 and Mathematics 120. Three lectures, one laboratory per week. Four credits; spring. (83)

**301-302-303. INTRODUCTION TO ORGANIC CHEMISTRY.** A short course designed to furnish a basis for the understanding of structural chemistry, systems, nomenclature, and organic chemistry reactions. Open to students in home economics, pre-dental, and certain other pre-professional courses. Does not apply on a regular major. Prerequisite: 141-142-143 or 144-145-146. Two lectures, one laboratory per week. Three credits; autumn, winter, spring. (101-102-103)

**321-322-323. ELEMENTARY ORGANIC CHEMISTRY.** A study of the preparation, reaction, and constitution of the aliphatic and aromatic compounds of carbon. Prerequisite: 141-142-143 or 144-145-146. Three lectures and two laboratories per week. Five credits; autumn, winter, spring. (111-112-113)

**324-325-326. ELEMENTARY ORGANIC CHEMISTRY.** Lecture same as 321-322-323, but only one laboratory per week. Four credits; autumn, winter, spring. (115-116-117)

**341, 342. ADVANCED INORGANIC CHEMISTRY.** A more detailed study of inorganic substances with emphasis on the metals, their preparation and uses. Prerequisite: 141-142-143. Two credits; autumn, winter. (121)

401-402, 403. **PHYSICAL CHEMISTRY.** An introductory course in theoretical chemistry and electrochemistry. Experiments involve the various physical properties of matter and their constants. Prerequisite: 244-245-246, Physics 181, 182, 183 or 201, 202, 203 and Mathematics 120, 130, 181, 182, 183, 184. Three lectures, one laboratory per week. Four credits; autumn, winter, spring. (151-152, 153)

406. **BIOCHEMISTRY.** A study of the chemistry of foods, digestion and body metabolism. Prerequisite: 301-302-303 or 321-322-323 or 324-325-326. Three lectures, one laboratory per week. Four credits; spring. (156)

424. **ORGANIC SYNTHESIS.** The preparation of various aliphatic and aromatic compounds involving representative procedures employed in synthetic work. One lecture, two laboratories per week. Three credits; autumn; conference to be arranged. (164)

425. **INORGANIC SYNTHESIS.** The course includes the preparation of a variety of inorganic compounds to illustrate standard methods of procedure employed in organic preparations. One lecture, two laboratories per week. Three credits; winter. (165)

426. **ORGANIC QUALITATIVE ANALYSIS.** A systematic identification of the various types of organic compounds, including unknowns. One hour conference and six to eight hours laboratory. Three credits; spring. (166)

\*429. **ADVANCED ORGANIC CHEMISTRY.** A study of the current theories in the field of aliphatic and aromatic chemistry. Prerequisite: 321-322-323. Two credits; spring. (168)

461, 462, 463. **ADVANCED ANALYTICAL CHEMISTRY.** A study of gravimetric, volumetric and instrumental methods of analysis. Problem solving is emphasized. One lecture, two laboratory periods per week. Three credits; autumn, winter, spring. (131, 132, 133)

477, 478, 479. **SPECIAL PROBLEMS IN CHEMISTRY.** Directed, independent study in an approved area. The student will be required to read widely on an assigned subject, follow regular research methods, and present a paper showing competence in and extent of his study. Open only to majors and minors. Permission from the chairman of the department required. One to three credits any quarter. Maximum, three credits. Autumn, winter, spring. (191, 192, 193)

\*486. **HISTORY OF CHEMISTRY.** Two credits; spring. (196)

\*Not offered the current year.

# EDUCATION

MR. SILVER, MRS. GROVE, MRS. JONES, MR. PETERS, MR. RHODES, MISS SEARLE,  
MR. STAHLNECKER

The College offers teacher-education programs leading to the bachelor's degree with Washington State and denominational certification for elementary and secondary teaching. Generally, a degree and the first certificate (provisional) can be earned in four years of college.

Candidates who wish to obtain the Washington State Standard Certificate will need to complete two years of successful teaching and a fifth year in college. The Standard Certificate requires forty-five quarter credits beyond the bachelor's degree and the provisional certificate. The fifth year program must be planned with the chairman of the Education Department. Students desiring to combine the requirements of the fifth year and the Master's Degree will in many cases be able to do this. Consult the bulletin of the Graduate Division.

Those planning to teach at the elementary level should follow the program leading to the Bachelor of Science degree with the elementary teaching major. Those planning for secondary teaching, including junior high school level, should follow one of the regular bachelor's degree programs with a teaching major and minor. In addition, candidates must meet the requirements of courses in education. In all cases, consult the chairman of the Education Department.

## CANDIDACY

To be approved as a candidate for any of the teacher certification programs, the student must complete forty-five credits in college and the course Introduction to Education, and must have earned an overall grade point average of 2.2 or higher. All programs leading to teacher certification must be approved by the Teacher Education Council.

Particular attention is given to planning each program to fit the needs of the individual student. Those transferring from other colleges should plan carefully with the Education Department to avoid unnecessary duplication of course work.

## REQUIREMENTS FOR PROVISIONAL ELEMENTARY CERTIFICATION

### I. General Education

Candidates must meet the basic requirements for the Bachelor of Science degree as listed on pages 43-45, with the following modifications:

The literature requirement will be met by Introduction to Literature and Children's Literature.

Students who cannot pass a proficiency test in mathematics will take Intermediate Algebra or the equivalent.

### II. Professional Education

Introduction to Education	210	3
Educational Psychology	220	3
Methods and Curriculum of		
Elementary Schools	240	5
Human Growth and Development	320	3

Educational Evaluation	330	3
Elementary Methods	361, 362 or 365	3
Teaching of Language Arts	363	5
Methods and Curriculum, Grades 7-12	340	3
Directed Teaching	450	12
		—
		40

Students will enroll for the course, Methods and Curriculum, Grades 7-12, during the same quarter in which they are registered for Directed Teaching.

Arrangements for directed teaching must be made at least six weeks prior to the quarter in which it is to be done.

### III. Elementary Teaching Major

In addition to the requirements listed under I. General Education and II. Professional Education, the student will complete the following course combination:

Science and/or Mathematics	7
English	
Literature	6
Journalism, Composition, or Grammar	3
Speech	2
Social Science	
Cultural Foundations and/or art and music appreciation	3
Political Science and/or Economics	3
History of the Pacific Northwest	3
Geography	3
Health Education	3
Electives*	30
	—
	63

\*Electives to be chosen in counsel with the Education Department to complete a major of 63 credits. A teaching minor of 25 credits may be included.

## REQUIREMENTS FOR PROVISIONAL SECONDARY CERTIFICATION

### I. General Education

Candidates must meet the basic requirements for the Bachelor of Arts degree as listed on pages 41-43, with the following modifications:

Candidates should include History 446. Students with majors or minors in the social sciences must also have World Geography.

It is also required that candidates complete the course Cultural Foundations, or credits in appreciation of art and music.

### II. Professional Education

Introduction to Education	210	3
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Educational Psychology	220	3
Guidance in Schools	262	3
Human Growth and Development	320	3
Educational Evaluation	330	3
Methods and Curriculum, Grades 7-12	340	3
Directed Teaching	460	12
Methods	471, 472 or 473	3
		—
		33

Students will enroll for the course, Methods and Curriculum, Grades 7-12, during the same quarter in which they are registered for Directed Teaching.

Arrangements for directed teaching must be made at least six weeks prior to the quarter in which it is to be done.

### III. Teaching Areas

**Major**—45 credits in a teaching area. Consult departmental offerings for specific courses.

**Minor**—25 credits. See the various departments for specific requirements.

## GENERAL COURSES IN EDUCATION

**110. PHILOSOPHY OF CHRISTIAN EDUCATION.** A study of the ideals and principles of Christian education, especially as interpreted by the Seventh-day Adventist Church. Two credits; autumn, winter or spring. (41, 42, 43)

**120. GENERAL PSYCHOLOGY.** A survey course emphasizing the scientific bases of psychological investigation. It serves as a basis for further courses in education and an introduction to the field of psychology. Three credits; autumn, winter or spring. (57, 58 or 59)

**210. INTRODUCTION TO EDUCATION.** A study of the historical and philosophical backgrounds with the current organization and objectives of American education. Three credits; autumn, winter or spring. (51, 52 or 53)

**220. EDUCATIONAL PSYCHOLOGY.** This course emphasizes the application of psychological principles to the art of teaching. The responsibility of the school in developing a dynamic, social, and ethical personality is stressed. The practices of the modern school are studied in the light of empirical findings, experimental research, and case studies. Three credits; autumn, winter or spring. (63)

**262. GUIDANCE IN SCHOOLS.** An introductory course designed to acquaint the beginning teacher with the overall guidance techniques and programs in the elementary and secondary school. Three credits; winter. (82)

**NOTE:** Prerequisite for entering courses numbered above 300 is an overall grade-point average of 2.2 in all college courses.

**320. HUMAN GROWTH AND DEVELOPMENT.** Principles of growth as related to all phases of development. Attitudes, ideals, and concepts of values are stressed when these are related to mental growth, emotional maturity, and personality development. Three credits; autumn, winter or spring. (112 or 113)

**330. EDUCATIONAL EVALUATION.** Designed to acquaint the student with methods and instruments for the evaluation of aptitudes, achievement, and personality in the school. Prerequisite: Psychology and basic mathematics or equivalent. Three credits; winter or spring. (118 or 119)

**349. SCHOOL HOME ADMINISTRATION.** A course designed especially for those interested in school home work in boarding schools, covering the development, mission, and organization of school homes, with emphasis on the fostering of spiritual and cultural ideals and leadership, in the light of the educational standards of Seventh-day Adventists and the recent developments in the field of personnel work. Three credits; spring. (129)

**404. HISTORY OF EDUCATION.** A survey of the history of education from early times to the present. Three credits; autumn. (154)

**426. INTRODUCTION TO COUNSELING.** Consideration of effective techniques of counseling individuals in the solution of personal problems of the school, family, church, and community. Prerequisite: 120. Two credits; spring. (166)

**441. SCHOOL HEALTH EDUCATION.** A study of basic principles of teaching health in elementary and secondary schools. Sources, selection, and use of materials in this field. Three credits; autumn. (171)

**444. SOCIAL PSYCHOLOGY.** A study of personality patterns that function in the interpersonal and intergroup life into which all human beings are born, and within which they develop and mature. The course is concerned with human behavior, attitudes, and processes of the phenomena of communication, suggestion, conflict, accommodation, assimilation, and socialization. Three credits; autumn. (174)

**463. METHODS OF AUDIO-VISUAL EDUCATION.** A survey of the methods of instruction through the use of audio-visual aids, including recording devices, motion pictures, slides, film strips, charts, maps, posters, opaque projection, flat pictures, and blackboard illustrations. Prerequisite: 9 credits in Education. Three credits; spring. (183)

## **ELEMENTARY AND SECONDARY EDUCATION**

**187, 188, 189PE. PROFESSIONAL ACTIVITIES I.** See Physical Education. (47, 48, 49PE)

**207M. PIANO METHODS.** See Music. (57M)

**240. METHODS AND CURRICULUM OF ELEMENTARY SCHOOLS.**

A course designed to acquaint the student with the content of materials used in connection with the course of study in the elementary school and with the methods used in teaching the various types of subject matter. Five credits; autumn or spring. (71 or 73)

**277, 278, 279M. BRASS METHODS.** See Music. (87, 88, 89M)

**281, 282, 283M WOODWIND METHODS.** See Music. (91, 92, 93M)

**284, 285, 286M. STRING METHODS.** See Music. (94, 95, 96M)

**287, 288, 289M. PERCUSSION METHODS.** See Music. (97, 98, 99M)

**287, 288, 289PE. PROFESSIONAL ACTIVITIES II.** See Physical Education. (97, 98, 99PE)

**305 Eng. CHILDREN'S LITERATURE.** See English. (105 Eng.)

**340. METHODS AND CURRICULUM, GRADES 7-12.** The evolution, scope, and methods of secondary education. Objectives and attainable goals for secondary schools, and curriculum offerings. Three credits; autumn, winter or spring. (121 or 122)

361. **TEACHING OF LANGUAGE ARTS.** Materials, objectives, and methods used in the teaching of the language arts in the elementary school. Five credits; autumn. (133)

362. **TEACHING OF SOCIAL STUDIES.** Materials, objectives, and methods used in teaching social studies in the elementary school, chosen from the fields of geography, history, and civics. Three credits; winter. (132)

363. **TEACHING OF SCIENCE.** Objectives, methods, and materials used in the teaching of science in the elementary school with particular emphasis on the application of the scientific method. Three credits; spring.

365. **TEACHING OF ARITHMETIC.** Methods of teaching arithmetic in the elementary school. Prerequisite: Mathematics requirement for the General Studies major. Three credits; winter. (114, 115 or 116)

381M. **VOICE METHODS.** See Music. (141M)

450. **DIRECTED TEACHING.** Professional laboratory experiences for students preparing to teach on the elementary level, including some teaching experiences on the secondary level. Arrangements must be made through the department prior to the quarter in which the directed teaching is to be done. Twelve credits; autumn, winter or spring. (101, 102, 103)

460. **DIRECTED TEACHING.** Professional laboratory experiences for students preparing to teach on the secondary level, including experiences on the elementary level. Arrangements must be made through the department prior to the quarter in which the directed teaching is to be done. Twelve credits; autumn, winter or spring. (147, 148 or 149)

471, 472 or 473. **METHODS COURSES.** Several methods courses are offered by the various departments of the college. They deal with materials and specific methods applicable to the teaching of each individual subject. Actual classroom presentation and demonstration is included. Three credits. (All have the same numbers.) (197)

## GRADUATE COURSES

\*511. **LITERATURE IN THE SECONDARY SCHOOL.** A survey of literature suitable to grades 7-12 with attention to evaluation, selection, authors, illustrators, and publishers. Three credits; summer. (211)

521. **PSYCHOLOGY OF LEARNING.** The course includes analysis of the mechanisms involved in the learning process. The physiological and psychological bases for functional learning are discussed, and the experimental evidence supporting psychological hypotheses is reviewed. Three credits; autumn. (221)

522. **PHILOSOPHY OF EDUCATION.** A study of the basic philosophies and development of educational thinking resulting in the formulation of aims and objectives of education for today's schools. Three credits; winter. (222)

525. **EDUCATION IN THE TWENTIETH CENTURY.** Historical background of modern education with emphasis on trends and developments in the twentieth century. Three credits; winter. (223)

\*526. **SCHOOL FINANCE.** A course designed for administrators, emphasizing origin and disbursement of school funds derived from tax sources and other revenues. Techniques of budget construction are studied and a general overview is given of the principles of financing education. Three credits; summer. (226)

\*Not offered the current year.

527. **SCHOOL PLANNING AND CONSTRUCTION.** A survey of how to plan and build schools, including the involvement of the lay citizen. Selection of site, trends in design, function of buildings and plant, costs and obligations will be studied. Professional architects and engineers will be guest lecturers. Three credits; summer. (227)

531. **INDIVIDUAL TESTING—BINET.** A course designed to familiarize the student with the Stanford-Binet Intelligence Scale, its administration and interpretation. Arrangements should be made through the department chairman. Three credits; summer. (231)

532. **INDIVIDUAL TESTING—WAIS.** A course designed to familiarize the student with the Wechsler Adult Intelligence Scale, its administration and interpretation. Arrangements should be made through the department chairman. Three credits; summer. (232)

533. **INDIVIDUAL TESTING—WISC.** A course designed to familiarize the student with the Wechsler Intelligence Scale for Children, its administration and interpretation. Arrangements should be made through the department chairman. Three credits; summer. (233)

535. **REMEDIAL READING.** Diagnostic and remedial reading techniques, how to recognize reading difficulties and improve reading skills. Three credits; summer. (235)

544. **ADMINISTRATION AND SUPERVISION, ELEMENTARY.** Organization, administration and supervision in the elementary schools. Three credits; summer. (244)

549. **MENTAL HEALTH IN EDUCATION.** Physiological and psychological factors related to emotional maturity. Identification of mental health activities. Individual mental health, classroom climate, patterns of acceptance and rejection. Three credits; spring. (249)

551. **ADMINISTRATION AND SUPERVISION, SECONDARY.** A course which presupposes some familiarity with problems of administration and supervision. An intensive study of the more important problems of organization and administration in secondary education. Three credits; autumn. (251)

553. **COUNSELING AND GUIDANCE.** Principles and techniques of individual and group counseling with emphasis on the scope; needs; organization of the program; services to students, the instructional staff, and the administration; personnel needed for the program. Three credits; spring. (252)

556. **CURRICULUM PLANNING.** The relation of curricular materials to educational outcomes in terms of personal and social values. A brief review of curriculum investigations and their significance in the selection and evaluation of school materials and activities. Current practices in curriculum revision. Three credits; spring. (256)

561. **METHODS OF RESEARCH.** Methods of research applied to current educational issues and trends in America. Two credits; autumn. (261)

565. **SEMINAR.** Topics in elementary education dealing with curriculum, personnel, school plant, finance, public relations, or other related areas. Two credits; winter. (265)

566. SEMINAR. Topics in secondary education dealing with curriculum, personnel, school plant, finance, public relations, or other related areas. Two credits; spring. (266)

580. SPECIAL PROBLEMS IN EDUCATION. Degree candidates who desire to pursue special research problems under the direction of the major professor may register for one to three credits. (280)

590. THESIS. Five to nine credits. (290)

595. INDEPENDENT STUDY. An independent study opportunity in which the student chooses an area of interest and agrees with his professor to study this area. The student is responsible for developing a plan of study and for meeting with his professor periodically to discuss his progress. This course may be taken for a maximum of nine credits and is equivalent to one semester of full-time study.

600. INDEPENDENT STUDY. An independent study opportunity in which the student chooses an area of interest and agrees with his professor to study this area. The student is responsible for developing a plan of study and for meeting with his professor periodically to discuss his progress. This course may be taken for a maximum of nine credits and is equivalent to one semester of full-time study.

605. INDEPENDENT STUDY. An independent study opportunity in which the student chooses an area of interest and agrees with his professor to study this area. The student is responsible for developing a plan of study and for meeting with his professor periodically to discuss his progress. This course may be taken for a maximum of nine credits and is equivalent to one semester of full-time study.

610. INDEPENDENT STUDY. An independent study opportunity in which the student chooses an area of interest and agrees with his professor to study this area. The student is responsible for developing a plan of study and for meeting with his professor periodically to discuss his progress. This course may be taken for a maximum of nine credits and is equivalent to one semester of full-time study.

615. INDEPENDENT STUDY. An independent study opportunity in which the student chooses an area of interest and agrees with his professor to study this area. The student is responsible for developing a plan of study and for meeting with his professor periodically to discuss his progress. This course may be taken for a maximum of nine credits and is equivalent to one semester of full-time study.

620. INDEPENDENT STUDY. An independent study opportunity in which the student chooses an area of interest and agrees with his professor to study this area. The student is responsible for developing a plan of study and for meeting with his professor periodically to discuss his progress. This course may be taken for a maximum of nine credits and is equivalent to one semester of full-time study.

625. INDEPENDENT STUDY. An independent study opportunity in which the student chooses an area of interest and agrees with his professor to study this area. The student is responsible for developing a plan of study and for meeting with his professor periodically to discuss his progress. This course may be taken for a maximum of nine credits and is equivalent to one semester of full-time study.

630. INDEPENDENT STUDY. An independent study opportunity in which the student chooses an area of interest and agrees with his professor to study this area. The student is responsible for developing a plan of study and for meeting with his professor periodically to discuss his progress. This course may be taken for a maximum of nine credits and is equivalent to one semester of full-time study.

635. INDEPENDENT STUDY. An independent study opportunity in which the student chooses an area of interest and agrees with his professor to study this area. The student is responsible for developing a plan of study and for meeting with his professor periodically to discuss his progress. This course may be taken for a maximum of nine credits and is equivalent to one semester of full-time study.

640. INDEPENDENT STUDY. An independent study opportunity in which the student chooses an area of interest and agrees with his professor to study this area. The student is responsible for developing a plan of study and for meeting with his professor periodically to discuss his progress. This course may be taken for a maximum of nine credits and is equivalent to one semester of full-time study.

645. INDEPENDENT STUDY. An independent study opportunity in which the student chooses an area of interest and agrees with his professor to study this area. The student is responsible for developing a plan of study and for meeting with his professor periodically to discuss his progress. This course may be taken for a maximum of nine credits and is equivalent to one semester of full-time study.

650. INDEPENDENT STUDY. An independent study opportunity in which the student chooses an area of interest and agrees with his professor to study this area. The student is responsible for developing a plan of study and for meeting with his professor periodically to discuss his progress. This course may be taken for a maximum of nine credits and is equivalent to one semester of full-time study.

655. INDEPENDENT STUDY. An independent study opportunity in which the student chooses an area of interest and agrees with his professor to study this area. The student is responsible for developing a plan of study and for meeting with his professor periodically to discuss his progress. This course may be taken for a maximum of nine credits and is equivalent to one semester of full-time study.

## ENGINEERING

MR. CROSS, MR. BENNETT, MR. DALSON, MR. LARSON, MR. MASDEN, MR. PASHNIAK

The College offers courses leading to the degree of Bachelor of Science in Engineering, with curriculums in civil, electrical and mechanical engineering. The aim of the engineering course is to prepare students to practice professional engineering. This involves the art and skill of applying mathematics, science, economics and ethics to the problems of research, development, design and construction of devices, machines, and structures which will benefit mankind.

The curriculum in civil engineering gives primary consideration to structural design, but includes also the areas of soils, highways, and elementary sanitary engineering. In electrical engineering the emphasis is particularly upon those problems that are related to the fields of electrical machinery, electronics, and communications. In mechanical engineering the predominant instructional areas are machine design, thermodynamics and heat transfer, and the beginning phases of structures and electrical engineering.

Students who plan to enroll as engineering freshmen should have a strong background of mathematics, physics, chemistry, history and English. No student with fewer than two years of preparatory training in mathematics can be admitted to the engineering course except on a provisional basis until such a deficiency is removed.

College students who pursue a pre-engineering program at another liberal arts college may complete the requirements for an engineering degree at Walla Walla College.

Admissions to engineering will be made only in September, except for certain advanced students. Satisfactory progress is contingent upon full attendance for all three quarters, and the maintenance of a C average grade. Since there is no clear distinction between major and minor courses, the grade of D in any subject will be interpreted as follows: A grade of D may be accepted for credit toward the degree provided there are no more than two such marks in any given quarter, and further provided that the grade-point average for that quarter is not lower than 2.00. Where these conditions do not hold a grade of D will necessitate repeating the course, whether it is engineering or nonengineering in nature.

In the senior year the following non-course requirements should be met: inspection trip, thesis, and a satisfactory score on the Graduate Record Examination.

The stipulated requirements for the degree of Bachelor of Science in Engineering are as follows:

## CIVIL ENGINEERING

First Year		Second Year	
Religion	6	Religion	6
Freshman Composition	9	Introductory Physics	12
College Algebra	4	Anal. Geom. & Calculus	12
Trigonometry	4	Engineering Mechanics	8
Anal. Geom. & Calculus	4	Mechanics of Materials	4
Inorganic Chemistry	15	Surveying	6
Engineering Drawing	9	Curves and Earthworks	3
Physical Education	1½	Physical Education	1½
	—		—
	52½		52½
Third Year		Fourth Year	
Religion	6	Engineering Administration	3
Bacteriology	5	Foundations	3
Differential Equations	6	Adv. Structural Design	14
Statistics	2	Indeterminate Analysis	4
Fluid Mechanics	4	Water and Sewage	9
Engineering Thermodynamics	4	Soil Mechanics	3
Structural Design & Analysis	9	Electric & Magnetic Circuits	4
Engineering Materials	6	Transportation Engineering	3
Hydrology	3	Engineering Geology	3
Contracts & Specifications	3	Nuclear Physics	4
Electives	4	Phil. of Christian Ed.	2
	—	Electives	2
	52		—
			54

## ELECTRICAL ENGINEERING

First Year		Second Year	
Religion	6	Religion	6
Freshman Composition	9	Introductory Physics	12
College Algebra	4	Anal. Geom. & Calculus	12
Trigonometry	4	Engineering Mechanics	8
Anal. Geom. & Calculus	4	Mechanics of Materials	4
Inorganic Chemistry	15	Electric & Magnetic Circuits	12
Engineering Drawing	9		—
Physical Education	1½		54
	—		
	52½		

**Third Year**

Religion	6
Differential Equations	6
Advanced Calculus	6
Mechanism	4
Fluid Mechanics	4
Engineering Thermodynamics	4
Electric Machinery	8
Electronics	12
Electric Field Analysis	4
	—
	54

**Fourth Year**

Engineering Materials	6
Transients	3
Radio Communications	9
Speech	4
Administration	3
Nuclear Physics	6
Systems Analysis	4
Computers	2
Wave Propagation & Radiation	4
Wave Propagation Lab.	2
Network Analysis	3
Phil. of Christian Ed.	2
Physical Education	1½
Electives	4
	—
	53½

**MECHANICAL ENGINEERING****First Year**

Religion	6
Freshman Composition	9
College Algebra	4
Trigonometry	4
Anal. Geom. & Calculus	4
Inorganic Chemistry	15
Engineering Drawing	9
Physical Education	1½
	—
	52½

**Second Year**

Religion	6
Introductory Physics	12
Anal. Geom. & Calculus	12
Engineering Mechanics	8
Mechanics of Materials	4
Survey of Metal Practice	9
Physical Education	1½
	—
	52½

**Third Year**

Religion	6
Electric Circuit Analysis	12
Fluid Mechanics	4
Engineering Thermodynamics	8
Mechanism	4
Mechanical Engineering Laboratory I	3
Differential Equations	6
Advanced Calculus	2
Structural Design I	9
	—
	54

**Fourth Year**

Engineering Materials	6
Engineering Administration	3
Heating & Air Conditioning	3
Heat Transfer	3
Electrical Machinery	8
Machine Design	9
Mechanical Engineering Laboratory II	2
Electronics	6
Nuclear Physics	6
Phil. of Christian Ed.	2
Electives	4-6
	—
	52-54

## CIVIL ENGINEERING

**CE 204. ELEMENTARY SURVEYING.** Use of transit, level, and chain; systematic methods for notes and computations; transit traverse, stadia survey; leveling, contours, mapping, and public land surveys. Prerequisite: Mathematics 130, ME 101-102-103. Three credits; autumn. (CE 54)

**CE 205. CURVES AND EARTHWORKS.** Theory and computation of simple, compound, and transition curves; earthwork computations. Prerequisite: CE 204. Three credits; winter. (CE 55)

**CE 206. ROUTE SURVEYING.** Preliminary and location surveys for land transportation routes; preparation of maps and reports. Prerequisite: CE 204 and 205. Three credits; spring. (CE 56)

**CE 243. MECHANICS OF MATERIALS.** Stresses, deformations and deflections of posts, shafts, beams, columns; combined stresses. Prerequisite: ME 201-202. Four credits; spring. (CE 73)

**CE 301. ENGINEERING GEOLOGY.** The materials of the earth; its structure, surface features, and their development; applications; field work. Three credits; autumn. (CE 171)

**CE 302. SOIL MECHANICS.** Fundamental principles; testing and classification of soils for use in foundations and highway subgrades; interpretation of test results. Prerequisite: CE 301. Three credits; winter. (CE 108)

**CE 303. CONTRACTS AND SPECIFICATIONS.** Preparation and interpretation of contracts and specifications; relation of the engineer to the owner and contractor. Three credits; spring. (CE 103)

**CE 306. TRANSPORTATION ENGINEERING.** Highway, railroad, and airport planning, design and construction; introduction to traffic engineering. Prerequisite: CE 206, 302. Three credits; spring. (CE 106)

**CE 361. ELEMENTARY STRUCTURAL ANALYSIS.** Graphical and algebraic analysis of statically determinate structures; influence diagrams, criteria for maxima; moving loads. Prerequisite: CE 243. Three credits; autumn. (CE 131)

**CE 362. STRUCTURAL DESIGN—TIMBER.** Analysis and design of elements of timber structures; fastenings, beams, columns and trusses; glued laminated members. Prerequisite: CE 361. Three credits; winter. (CE 132)

**CE 363. STRUCTURAL DESIGN—STEEL.** Analysis and design of elements of steel structures; connections, welding, beams, girders, columns, trusses, and bearings. Prerequisite: CE 361. Three credits; spring. (CE 133)

**CE 364. INDETERMINATE STRUCTURAL ANALYSIS.** Analysis of statically indeterminate structures; continuous beams, trusses, rigid frames, and arches. Prerequisite: CE 361. Four credits; autumn. (CE 134)

**CE 389. HYDROLOGY.** Precipitation, runoff, storage, and methods of measurement. Three credits; spring. (CE 149)

**CE 427-428-429. WATER SUPPLY AND SEWAGE DISPOSAL.** Fundamental processes in the collection, distribution and conditioning of water as applied to water supply and sewage disposal. Design and operation of typical plants. Prerequisite: ME 321, CE 389. Three credits; autumn, winter, spring. (CE 167-168-169)

**CE 461. STRUCTURAL DESIGN—CONCRETE.** Analysis and design of elements of reinforced concrete structures; beams, slabs, girders, columns, and footings. Prerequisite: CE 364. Four credits; autumn. (CE 181)

**CE 462. ADVANCED STRUCTURAL DESIGN—STEEL.** Design of statically indeterminate steel structures; industrial buildings, bridges, multi-story buildings; introduction to plastic design. Five credits; winter. (CE 182)

**CE 463. ADVANCED STRUCTURAL DESIGN—REINFORCED CONCRETE.** Design of statically indeterminate reinforced concrete structures; buildings, bridges; introduction to ultimate strength design and pre-stressed concrete. Five credits; spring. (CE 183)

**CE 466. FOUNDATIONS.** Analysis and design of foundations and other substructures including concrete footings, pile foundations, retaining walls, cofferdams, and caissons. Prerequisite: CE 302, 461. Three credits; spring. (CE 186)

## ELECTRICAL ENGINEERING

**EE 224-225-226. ELECTRIC AND MAGNETIC CIRCUIT ANALYSIS.** Electrical circuit variables and parameters; Ohm's law and resistance; Kirchoff's laws, network theorems and analysis, electrical measurements, nonlinear circuits, basic field concepts and their relation to circuits; steady state analysis by phasors, frequency characteristics of simple circuits. Corequisite: Mathematics 182, 183, 184. Four credits; autumn, winter, spring. (EE 64-65-66)

**EE 384. INTRODUCTION TO MODERN COMPUTERS.** Introduction to the use of analog and digital computers in the solution of engineering problems. For the analog computer, the basic computing circuits, time and amplitude scaling and programming will be considered. For the digital computer, analysis of the problem, flow charting and coding will be considered. Prerequisite: Mathematics 421, 422. Primarily for engineering students and others by permission. Two credits; autumn.

**EE 421-422. ELECTRIC MACHINERY.** Characteristics of DC motors, generators, and associated control equipment, transformers and their application in single and polyphase circuits; induction motors; synchronous motors, alternators; single phase motors and other special types of rotating machines; metering techniques; consideration of applications. Prerequisite: EE 224-225-226. Four credits; autumn, winter. (EE 161-162)

**EE 426. ELECTRIC AND MAGNETIC FIELD ANALYSIS.** A study of the properties of static and dynamic electric and magnetic fields with particular emphasis given to Maxwell's equations in vector differential form; development of the wave equation in dielectric and conducting media; reflections at boundaries. Prerequisite: EE 224-225-226. Corequisite: Mathematics 425. Four credits; spring. (EE 163)

**EE 442-443. RADIO ENGINEERING.** Tuned circuits and their use in bandpass amplifiers, tuned power amplifiers, oscillators; feedback, noise; AM and FM modulation and demodulation processes, transmitters and receivers. Prerequisite: Physics 321-322-323. Four credits, winter; five credits, spring. (EE 172-173)

**EE 444. TRANSIENT ANALYSIS.** A study of simple electrical and mechanical components in which emphasis is placed upon the behavior of the response function when sudden changes are made in the excitation function and/or other system parameters. Both classical and Laplace transform methods are applied. Prerequisite: EE 224-225-226. Mathematics 421, 422, 424, 425. Three credits; autumn. (EE 174)

**EE 464. WAVE PROPAGATION AND RADIATION.** Solution of the electromagnetic wave equation in transmission lines, wave guides and radiation from simple antennae. Application of Smith chart to solution of problems. Prerequisite: EE 426 or equivalent. Four credits; autumn. (EE 184)

**EE 465. NETWORK ANALYSIS.** A study of the properties of the impedance and admittance functions defined on the complex plane, including pole and zero concepts and their application to the analysis and design of reactive networks. Prerequisite: EE 444. Three credits; winter. (EE 185)

**EE 469. WAVE PROPAGATION LABORATORY.** A laboratory study of wave propagation along lossless and lossy transmission lines and in rectangular wave guides; basic techniques of measuring microwave quantities. Prerequisite: EE 464. Two credits; winter. (EE 189)

**EE 486. SYSTEM ANALYSIS.** An introduction to control and feedback systems made up of electrical, mechanical and electro-mechanical components, including: system components, multi-terminal component concepts, stability criteria, and the use and limitations of block diagrams and signal flow methods. Prerequisite: EE 465. Four credits; spring.

## MECHANICAL ENGINEERING

**ME 101-102-103. ENGINEERING DRAWING.** Lettering; theory and practice of projection drawing; conventional and simplified practices; pictorial representation; detail and assembly drawings; problems in descriptive geometry, developments and intersections; engineering applications. Lectures on engineering orientation. Three credits; autumn, winter, spring. (ME 1-2-3)

**ME 201-202. ENGINEERING MECHANICS.** Statics, two and three dimensional; analytical and graphical methods; kinetics; work and energy; dynamics of rotation, translation, and plane motion; impulse and momentum. Corequisite: Physics 201, 202, Mathematics 181. Four credits; autumn, winter. (ME 51-52)

**ME 321. FLUID MECHANICS.** Fluid statics; fluid dynamics; nozzles, orifices, and weirs; impulse and reaction turbines; pipe flow; channel flow. Prerequisite: ME 201-202. Four credits; autumn. (ME 111)

**ME 322, 323. ENGINEERING THERMODYNAMICS.** Properties of gases and vapors; entropy; PV, TS, HS, and HV planes; gas and vapor cycles; psychrometry; applications. Prerequisite: Physics 201, 202, 203. Four credits; winter, spring. (ME 112, 113)

**ME 329. MECHANISM.** A study of velocities, accelerations, and motions; consideration of devices for transferring these motions. Prerequisite: ME 201-202. Four credits; spring. (ME 119)

**ME 342. ENGINEERING ADMINISTRATION.** Business, economic, and ethical phases of engineering practice; engineering organization. Three credits; winter. (ME 122)

**ME 343. HEATING AND AIR CONDITIONING.** Principles and practice of heating, ventilating, and air conditioning to meet public, residential, and industrial needs; heat losses and gains; automatic control equipment. Prerequisite: ME 321, 322, 323. Three credits; spring. (ME 123)

**ME 367, 368, 369. MECHANICAL ENGINEERING LABORATORY I.**  
Fuels and lubricants; calorimetry; instrumentation, calibrations. Corequisite: ME 321, 322, 323. One credit; autumn, winter, spring. (ME 137, 138, 139)

**ME 381-382-383. MACHINE DESIGN.** Practical application of kinematics, materials, mechanics, and mechanical processes to the design of machines and machine elements, with due regard to the selection of materials, construction, lubrication, safety, and cost. Calculations, layouts and detail drawings as required. Prerequisite: ME 329, CE 243. Corequisite: ME 401. Three credits; autumn, winter, spring. (ME 141-142-143)

**ME 401-402. ENGINEERING MATERIALS.** Study of the science of engineering materials—metallic and non-metallic; properties, uses, tests, behavior under stress; laboratory. Five credits, autumn; one credit, winter. (ME 151-152)

**ME 404, 405. MECHANICAL ENGINEERING LABORATORY II.** Testing of mechanical equipment; heat-power studies. Prerequisite: ME 367, 368, 369. One credit; autumn, winter. (ME 154, 155)

**ME 449. HEAT TRANSFER.** A study of the basic laws of heat transfer by conduction, convection, and radiation. Prerequisite: ME 322, 323, Mathematics 421, 422. Three credits; spring. (ME 179)



## **A GIANT**

**Not many miles from the campus flows the mighty Columbia River,  
a great source of recreation and enjoyment for the college students.**

# ENGLISH

MR. APLINGTON, MISS BURGESON, MR. BURNS, MISS CHAMBERS, MRS. EVANS, MRS. KNAPP, MRS. LAY, MISS MOORE

The primary objective of the department is the development of competence in the use of the English language, so that students may express themselves clearly and effectively. The department also seeks to inspire students with the best in the world's literature.

## MAJOR REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

Introduction to Literature	203	3
American Literature	224, 225, 226	6
English Literature	244, 245, 246	9
Seminar	491-492-493	3
Electives*		24
		—
		45
		6-15

### \*Choose from the following:

Restoration & Neoclassic Literature	427-428-429
Old & Middle English Literature	441-442-443
English Renaissance Literature	464, 465, 466

### \*Choose from the following:

Twentieth Century Literature	262
The Victorian Period	404, 405, 406
American Literary Masters	407, 408, 409
The Romantic Period	421, 422, 423
Literature of the Bible	469

### Required Cognates:

Advanced English Grammar
Creative Writing
History 201, 202, 203 or 404, 405, 406

## MINOR REQUIREMENTS:

American Literature	224, 225, 226	6
English Literature	244, 245, 246	9
Writing courses (beyond Freshman Composition)		6
Electives, upper division		6
		—
		27

## TEACHING MAJOR AND MINOR:

The teaching major of 45 credits and the teaching minor of 25 credits must be taken together with required education courses and cognates for state teacher certification. The required courses in this department are:

### Major:

Introduction to Literature	203	3
American Literature	224, 225, 226	6
English Literature	244, 245, 246	9
Writing courses (beyond Freshman Composition; may include News Writing)		6

Seminar	491-492-493	3
Electives, upper division (Counsel with the department chairman.)		18
<b>Required Cognates:</b>		
History 201, 202, 203 or 404, 405, 406.		
<b>Minor:</b>		
American Literature	224, 225, 226	6
English Literature	244, 245, 246	9
Writing courses (beyond Freshman Composition; may include News Writing)		6
Electives, upper division		4

## COMPOSITION

101-102-103. **FRESHMAN COMPOSITION.** Fundamental principles of composition: syntax, effective sentence structure, punctuation, paragraph development, organization of material, writing the various types of themes, and reaction to a reading program. English 101 or 101A will be repeated in the winter, spring, or summer when the demand is sufficient. Three credits; autumn, winter, spring. (1-2-3)

101A-102-103. **FRESHMAN COMPOSITION.** This course differs from the preceding one in that during the first quarter only it meets five times a week in order to accommodate those who need a review in fundamentals or extra attention to basic details. Three credits; autumn, winter, spring.

206. **ADVANCED ENGLISH GRAMMAR.** The study of grammar and usage in current writing. Required of all English majors and recommended for minors and others who may teach English. Three credits; spring.

282. **ADVANCED WRITING.** Here the student meets the writing situations he is most likely to face in his after-college life: letters, reports, directions, and other types of exposition. He is asked to read and analyze examples of successful writing, to discover both the logic and the psychology of what he reads, and to employ in his own writing methods which he sees experienced writers have used effectively. Three credits; winter. (92)

385. **CREATIVE WRITING.** A course designed for those who have already mastered the mechanics of writing and who aspire to a level of creativity higher than that of mere correctness and clarity. Required of all English majors. Three credits; winter. (145)

## LITERATURE

203. **INTRODUCTION TO LITERATURE.** A study of the basic principles, the philosophy and nature of literary art, and the technical terminology together with an analysis of examples of the various forms and types of poetry and prose. Three credits; spring. (53)

224, 225, 226. **AMERICAN LITERATURE.** A survey of American literature with particular attention to the cultural complexes and philosophies that have characterized the various periods of literary history in this country. Two credits; autumn, winter, spring. (64, 65, 66)

244, 245, 246. **ENGLISH LITERATURE.** A chronological study of English literature with emphasis on the major writers and movements from Beowulf to about 1900. Literature is correlated with the other fine arts at appropriate times through the course. Three credits; autumn, winter, spring. (74, 75, 76)

262. **TWENTIETH CENTURY LITERATURE.** Modern American and British literary achievements studied as a revelation of contemporary attitudes, ideals, and conduct. Three credits; winter. (82)

Courses numbered above 300 have as prerequisites the appropriate lower division preparation, which varies according to the student's background in other languages and in history. Consult the department for direction.

305. **CHILDREN'S LITERATURE.** A survey of children's literature for the elementary school level. This course is required of and limited to candidates for elementary school teacher certification, and for them it may satisfy part of the basic requirements of five credits of literature. Three credits; winter. (105)

404, 405, 406. **THE VICTORIAN PERIOD.** An advanced study of the poetry and prose of the men who molded and reflected characteristic opinion and ideals after the first third of the nineteenth century. Three credits; autumn, winter, spring. (154, 155, 156)

407, 408, 409. **AMERICAN LITERARY MASTERS.** An advanced study of a restricted number of American writers who have given significant distinction to American letters. Two credits; autumn, winter, spring. (157, 158, 159)

421, 422, 423. **THE ROMANTIC PERIOD.** An analytical examination of the emergence of Romantic ideals and their manifestation in literature, beginning with the pre-Romantic school to 1832. Two credits; autumn, winter, spring. (161, 162, 163)

425. **HISTORY OF THE ENGLISH LANGUAGE.** This course is designed to give the student a broad, comprehensive understanding of present-day English. It aims to present the historical development in such a way as to maintain a balance between the external and internal history of the language. Required for those seeking departmental recommendation for teaching. Three credits; winter. (165)

427-428-429. **RESTORATION AND NEOCLASSIC LITERATURE.** Neoclassic ideas and achievements as reflected in the chief writers of the time from Bunyan and Dryden to Johnson. Two credits; autumn, winter, spring. (167-168-169)

441-442-443. **OLD AND MIDDLE ENGLISH LITERATURE.** An examination and study in its historical setting of English literature from the earliest Anglo-Saxon remains to about 1450. The Old English works are studied in translation and the Middle English, including Chaucer, largely in originals. Three credits; autumn, winter, spring. (171-172-173)

464, 465, 466. **ENGLISH RENAISSANCE LITERATURE.** Detailed exploration in the significant nondramatic literature that reflects the essential temper of the Renaissance period, with chief emphasis on Spenser, Bacon, and Milton. Three credits; autumn, winter, spring. (184, 185, 186)

469. **LITERATURE OF THE BIBLE.** Reading of both poetry and prose in the Old Testament, with a detailed study of the poem of Job as probably the greatest masterpiece in any language. (189)

**472. METHODS OF TEACHING ENGLISH IN THE SECONDARY SCHOOL.** Content, organization, methods and techniques of teaching English and related subjects in the secondary school. Observation, demonstration, and class presentation are required of the students as a part of this course. Three credits; winter. (197)

**491-492-493. SEMINAR.** An integrating course required of English majors in the senior year and recommended to minors. The study includes: aims, methods, and materials of English scholarship; investigation of problems peculiar to the class personnel; group conferences and reports. One credit; autumn, winter, spring. (194-195-196)

## **JOURNALISM**

### **MINOR REQUIREMENTS:**

A minimum of 28 credits, which may include course 385.

### **TEACHING MINOR:**

The teaching minor of 25 credits must be taken with the required education courses and cognates for state teacher certification. Consult the department chairman.

**264-265-266. NEWS WRITING.** A practical course in gathering news and writing news stories, simple feature stories, and editorials. Copy editing and other desk exercises are designed to aid the student in developing skill in producing acceptable newspaper copy. Two credits; autumn, winter, spring. (84-85-86)

**341, 342, 343. MAGAZINE ARTICLE WRITING.** Fact writing, with analysis of magazine markets, fundamentals of gathering materials for articles and preparation of manuscripts for publication. Two credits; autumn, winter, spring. (121, 122, 123)

**361. COPYREADING AND EDITING.** Lectures on the selection, preparation, and display of news; practice in editing copy and writing headlines. Three credits; autumn. (131)

**382. EDITORIAL WRITING.** The writing of editorials, interpretive articles, and critical reviews, with a study of these types as found in today's newspaper. Two credits; winter. (142)

**384. RELIGIOUS WRITING.** A course intended to help students who want to write about religion, directly or indirectly. Underscoring a conviction that good religious writing is needed now more than ever, it treats both the problems and methods of the craft. Students will do several types of writing; publication will be encouraged. Three credits; autumn. (144)

**401, 402, 403. NEWSPAPER PROBLEMS.** Relation of the press to society and government; ethics and responsibilities of publishing; psychology and influence of the newspaper. Students will read several of the country's leading newspapers. Two credits; autumn, winter, spring. (151, 152, 153)

**\*426. SCHOOL PUBLICATIONS.** A course designed for prospective English teachers who will work with school publications staffs. A study of editorial and business aspects in such publications, with an examination of several school papers and yearbooks. Two credits; spring. (166)

\*Not offered the current year.

# HEALTH AND PHYSICAL EDUCATION

MR. WINTER, MR. DAHLBECK, MRS. JONES

The courses in health are offered with the objective of preparing elementary and secondary school teachers, physical education instructors, nurses, and social workers to cope competently with health problems in school and community and to teach health principles and practices effectively.

The aim of the department is to promote those activities which stimulate habits of regular exercise and develop interests and skills which may be enjoyed throughout life. A major and a minor are available in physical education.

## HEALTH

110. **HEALTH PRINCIPLES.** A study of the healthy, wholesome personality including the underlying principles governing the harmonious development of the human body. It includes personal, home and community health. Three credits; autumn, winter or spring. (14, 15, 16)

266. **PRINCIPLES OF COMMUNITY HEALTH.** A study of community health problems which United States citizens are facing and their most feasible solutions to date. Prerequisite: 110. Three credits; spring.

282. **SCHOOL SAFETY AND FIRST AID.** Emphasis upon prevention of accidents common in various school situations, first aid bandaging and care of injuries. Value of massage, diathermy, etc. Value of body conditioning. Three credits; winter.

410. **COMMUNITY HEALTH TEACHING.** A study of the principles, methods, and materials used in disease prevention and health conservation. Experience will be given in participation in such programs in the community. Three credits; winter or spring. (178 or 179)

441. **SCHOOL HEALTH EDUCATION.** A study of basic principles of teaching health in elementary and secondary schools. Sources, selection, and use of materials in this field. Three credits; autumn. (171)

442. **HEALTH ADMINISTRATION.** A study of the administration of health programs in secondary schools and colleges. Participation in health activities is included. Three credits; spring. (173)

484, 485, 486. **DIRECTED TEACHING IN HEALTH.** This course is primarily designed for students who wish to do directed teaching in health and allied areas. The students will participate in the regular duties pertaining to teaching, such as observation, class presentation, student counseling, teaching and supervision. Studies will be made of materials for the various levels of students. Admission on approval of the supervisor. Three to nine credits; autumn, winter, spring. (194, 195, 196)

## PHYSICAL EDUCATION

### GENERAL REQUIREMENTS OF ALL STUDENTS

All freshmen and new students who have not completed a total of three credits in Physical Education at the time of entering will be required to take a physical fitness test during the first week in attendance, and all

who indicated poor physical fitness will enroll in a developmental class.

Students above thirty years of age and veterans who can supply a copy of their separation papers before registration may be exempt from all requirements in physical education including the swimming and physical fitness tests.

#### **MAJOR REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE:**

Introduction to PE	182	2
Professional Activities I	187, 188, 189	6
Anatomy	264	3
Kinesiology	265	3
Intramural Activities and Officiating	284	3
Professional Activities II	287, 288, 289	6
Physiology of Exercise	363	3
Professional Activities III	381, 382, 383	6
Foundations of PE	421	3
Tests and Measurements in PE	423	1
Administration of PE and Health in Secondary Schools	426	3
Seminar	492, 493	2
Electives		4
		—
	Total	45

#### **Required Cognates:**

Biology 101, 102, 103; 104; 407; and 2-4 electives in biology
Chemistry 144-145-146
Home Economics 220
Health 110; 282; 410; 441

A minor in biology is recommended.

#### **MINOR REQUIREMENTS:**

Introduction to PE	182	2
Professional Activities I	187, 188, 189	6
Foundations of PE	421	3
Tests and Measurements in PE	423	1
Administration of PE and Health in Secondary Schools	426	3
Electives		12
		—
		27

#### **TEACHING MAJOR AND MINOR:**

The teaching major of 45 credits and the teaching minor of 25 credits must be taken together with the required education courses and cognates for state teacher certification. The required courses in this department are:

##### **Major:**

Anatomy	264	3
Kinesiology	265	3
Professional Activities I	187, 188, 189	6
Physiology of Exercise	363	3
Foundations of PE	421	2

Tests & Measurements in PE	423	1
Administration of PE in Sec. Sch.	426	3
Seminar	492, 493	3
Electives, including 9 upper division (Counsel with the department chairman.)	21	
<b>Minor:</b>		
Professional Activities I	187, 188, 189	6
Foundations of PE	421	3
Tests & Measurements in PE	423	1
Administration of PE in Sec. Sch.	426	3
Electives (Counsel with the department chairman.)	12	

## SERVICE COURSES IN PHYSICAL EDUCATION

A wide selection of activities is available for the student. Those unable to pass a basic swimming test will be required to enroll in a swimming class in order to acquire this important skill. The student will be required to enroll in at least one team activity as well as an individual or dual type. At least one quarter of gymnastics is strongly recommended.

### SERVICE COURSES—MEN

101, 102, 103. **FRESHMAN PHYSICAL EDUCATION.** One-half credit; autumn, winter, spring. (1, 2, 3)

201, 202, 203. **SOPHOMORE PHYSICAL EDUCATION.** One-half credit; autumn, winter, spring. (51, 52, 53)

301, 302, 303. **JUNIOR AND SENIOR PHYSICAL EDUCATION.** One-half credit; autumn, winter, spring. (101, 102, 103)

### SERVICE COURSES—WOMEN

121, 122, 123. **FRESHMAN PHYSICAL EDUCATION.** One-half credit; autumn, winter, spring. (11, 12, 13)

221, 222, 223. **SOPHOMORE PHYSICAL EDUCATION.** One-half credit; autumn, winter, spring. (61, 62, 63)

321, 322, 323. **JUNIOR AND SENIOR PHYSICAL EDUCATION.** One-half credit; autumn, winter, spring. (111, 112, 113)

## PROFESSIONAL COURSES

182. **INTRODUCTION TO PHYSICAL EDUCATION.** A theory course outlined to provide a basic orientation to the field of physical education. A brief survey of the philosophy and objectives as well as the professional opportunities and responsibilities of the physical educator. Required of Physical Education majors and recommended for teachers. Two credits; winter. (42)

187, 188, 189. **PROFESSIONAL ACTIVITIES I.** Primarily for students majoring or minoring in Physical Education. Methods, techniques, and the skills involved in various activities of the physical education program. Two credits; autumn, winter, spring. (47, 48, 49)

\*264. **ANATOMY.** Gross anatomy: a study of skeletal and muscular structure of the human anatomy. Three credits; autumn. (84)

\*265. **KINESIOLOGY.** Study of joint and muscular mechanism action of muscles involved in fundamental movements. Effect of gravity and other forces on motion. Prerequisite: 264. Three credits; winter. (85)

\*Not offered the current year.

**281. PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL.** Preparation and administration of the activity program at the elementary level. Three credits; autumn. (91)

**\*283. CORRECTIVE PHYSICAL EDUCATION.** A study of common abnormalities found in students which may be corrected or helped by proper exercise. Extent and limitations of the teacher's responsibility in this phase of education. Three credits; spring. (93)

**\*284. INTRAMURAL ACTIVITIES AND OFFICIATING.** Mechanics of intramural organization and the art of officiating the various sports activities. Three credits; autumn. (94)

**\*287, 288, 289. PROFESSIONAL ACTIVITIES II.** Primarily for students majoring or minoring in Physical Education. Methods, techniques and the skills involved in various activities of the physical education program. Prerequisite: 187, 188, 189. Two credits; autumn, winter, spring. (97, 98, 99)

**\*363. PHYSIOLOGY OF EXERCISE.** Physiological results of muscular exercise. Prerequisite: Biological Sciences 104. Three credits; spring. (133)

**\*381, 382, 383. PROFESSIONAL ACTIVITIES III.** Primarily for students majoring or minoring in Physical Education. Methods, techniques, and advanced skills involved in various activities of the physical education program. Prerequisite: 287, 288, 289. Two credits; autumn, winter, spring. (141, 142, 143)

**\*421. FOUNDATIONS OF PHYSICAL EDUCATION.** History and theory of physical education. A practical study of the reasons physical education should be included in the school program and the unique contribution it makes to education. Three credits; autumn. (161)

**\*423. TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION.** A study of various testing devices which may be used in physical education. Practical experience will be given by test administration and scoring. Prerequisite: Education 330. One credit; spring. (162)

**\*426. ADMINISTRATION OF PHYSICAL EDUCATION AND HEALTH IN SECONDARY SCHOOLS.** Study of problems in schedules, organization, group activities, and testing needed on the secondary level. Three credits; spring. (163)

**471. METHODS OF TEACHING PHYSICAL EDUCATION.** Methods and techniques of teaching physical education in the secondary school. Observation, demonstration, and class presentation are required of the students as a part of this course. Three credits; autumn. (197)

**477, 478, 479. SPECIAL PROBLEMS IN HEALTH AND PHYSICAL EDUCATION.** Directed, independent study in an approved area. The student will be required to read widely on an assigned subject, follow regular research methods, and present a paper showing competence in and extent of his study. Open only to majors and minors. Permission from the chairman of the department required. One to three credits any quarter. Maximum, three credits. Autumn, winter, spring. (191, 192, 193)

**492, 493. SEMINAR.** A study of the modern trends in physical education. Group discussion and presentation of current material in the field. Prerequisite: senior standing. One credit; winter, spring. (195, 196)

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\*Not offered the current year.

## RECREATION

343. **CAMP CRAFT AND MANAGEMENT.** A course to help in the preparation of competent summer camp leaders. Two lectures per week, with laboratory work in the form of junior group leading on occasion. Three credits; spring. (123)

344, 345, 346. **ARTS AND CRAFTS.** This course is offered to help plan the leisure time activity of young people as well as preparation for a hobby in later life. This includes lapidary and ceramics. Other crafts are taught in the Industrial Education Department. Two credits; autumn, winter, spring. (124, 125, 126)

403. **LEADERSHIP IN CAMPING AND CAMP CRAFT.** A class for those interested in advanced work in this field. These students will act as laboratory instructors for those in course 343. Prerequisite: 343 and permission of instructor. Two credits; spring. (153)

424, 425, 426. **ADVANCED ARTS AND CRAFTS.** Continuation of 344, 345, 346, with special emphasis upon teaching methods, preparation of teaching aids, sources of material, cost, etc. Two credits; autumn, winter, spring.

# HISTORY, POLITICAL AND SOCIAL SCIENCE

MR. MECKLING, MR. CHRISTIAN, MR. HANSON, MRS. JONES, MR. LITKE, MR. WALTERS, MR. WESTERMAYER

The department offers a major in history and minors in history, political science, and social science.

## HISTORY

The purpose of the work in history is fivefold: to promote a better understanding of the past and an appreciation of the present; to broaden the cultural outlook and formulate a constructive philosophy of history and of life; to train in skills of research and evaluation; to show the relation between history and prophecy; and to prepare teachers and social workers.

### MAJOR REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

History of Civilization	101, 102, 103	9
History of the United States	201, 202, 203	9
Seminar	491, 492	2
Electives (may select 9 credits from Political and Social Science in con- sultation with department chairman)	34	

54

### MINOR REQUIREMENTS:

History of Civilization	101, 102, 103	9
History of the United States	201, 202, 203	9
Seminar	491	1
Electives (may select 3 credits from Political and Social Science in con- sultation with department chairman)	9	

28

### TEACHING MAJOR AND MINOR:

The teaching major of 45 credits and the teaching minor of 25 credits must be taken together with the required education courses and cognates for state teacher certification. The required courses in this department are:

#### Major:

History of Civilization	101, 102, 103	9
History of the United States	201, 202, 203	9
History of the Pacific Northwest	446	3
Elect from European History		9
Elect from American History		9
Seminar	491, 492	2
Electives (Counsel with department chairman.)		4

#### Minor:

History of Civilization	101, 102, 103	9
History of the United States	201, 202, 203	9
History of the Pacific Northwest	446	3
Seminar	491	1
Electives (Counsel with department chairman.)		3

## COURSES

101, 102, 103. **HISTORY OF CIVILIZATION.** A survey of world history from antiquity to the present. A basic course in history intended for lower division students. Three credits; autumn, winter, spring. (1, 2, 3)

201, 202, 203. **HISTORY OF THE UNITED STATES.** A survey of the colonial period, followed by a more detailed study of the national period. A basic course in history intended for the lower division student. Three credits; autumn, winter, spring. (51, 52, 53)

### EUROPEAN HISTORY

321, 322, 323. **HISTORY OF THE ANCIENT NEAR EAST.** A study of the major civilizations of antiquity as clarified by modern archaeological research. In tracing the development of the various successive empires of the ancient Mediterranean world, special emphasis is placed upon the history of Babylonia, Palestine, Egypt, Greece, and Rome. Two credits; autumn, winter, spring. (111, 112, 113)

404, 405, 406. **HISTORY OF ENGLAND.** The development and expansion of the English nation from the earliest times to the present including the development of the British Empire. Two credits; autumn, winter, spring. (154, 155, 156)

407, 408, 409. **EUROPE SINCE 1815.** Political, economic, and social developments in nineteenth and twentieth century Europe, with special attention to our own times. Three credits; autumn, winter, spring. (157, 158, 159)

421, 422, 423. **HISTORY OF RUSSIA.** A general survey of the expansion of Russia, Tsarish experiments in political and social reform, the rise and spread of revolutionary socialism, the collapse of the Russian Empire during the First World War, the postwar history of the U.S.S.R., including its conflict with Germany in World War II. Two credits; autumn, winter, spring. (161, 162, 163)

427. **THE LATE MIDDLE AGES.** The period of papal revival, the growth of the towns, the struggle of Empire and Papacy, the emergence of royal authority, the rise of the bourgeoisie, growing dissent in the medieval church. Three credits; autumn. (167)

428. **THE RENAISSANCE.** The decline of feudalism, of the guild system, of papal authority, and of scholastic thought, followed by the Italian Renaissance and Humanism in the north. Three credits; winter. (168)

429. **THE REFORMATION.** The revolution in religion. A study of the main branches of Protestantism and their relation to the political life of Europe; the Catholic Counter-Reformation. Three credits; spring. (169)

### AMERICAN HISTORY

\*424, 425. **THE AMERICAN FRONTIER.** The exploration, settlement, and development of the American west with consideration given to economic, social, cultural, and political factors. Three credits; autumn, winter. (164, 165)

\*444. **HISTORY OF CANADA.** The French period, English Colonial period in relation to the United States, the National period, westward expansion. Three credits; autumn. (174)

\*Not offered the current year.

446. **HISTORY OF THE PACIFIC NORTHWEST.** Development of the Northwest with emphasis on the State of Washington. The fur traders, the missionary era, the settlement of Washington following 1846, territorial days, political and economic development during statehood. A study of the State Manual of Washington will also be included. Three credits; spring. (176)

447, 448. **TWENTIETH CENTURY AMERICA.** The course covers major developments in the United States from 1900 to the present including two world wars, prosperity and depression, political and economic changes, Korean conflict, atomic age, cold war and the frontiers of space. Three credits; autumn, winter. (177, 178)

\*467, 468, 469. **HISTORY OF LATIN AMERICA.** A survey of the colonial period, followed by a more detailed study of the development of the individual Latin-American nations and their world relationship. Two credits; autumn, winter spring. (187, 188, 189)

477, 478, 479. **SPECIAL PROBLEMS IN HISTORY.** Directed, independent study in an approved area. The student will be required to read widely on an assigned subject, follow regular research methods, and present a paper showing competence in and extent of his study. Open only to majors and minors. Permission from the chairman of the department required. One to three credits any quarter. Maximum, three credits. Autumn, winter, spring. (191, 192, 193)

491, 492. **SEMINAR.** An orientation and research course in problems connected with historical materials and methods. Open to majors and minors only. One credit; autumn, winter. (186, 194, 195)

## POLITICAL SCIENCE

The objectives of the courses in Political Science are to give an understanding of the functions of our government and of international relations, and to prepare for teaching, religious liberty work, and study in law.

### MINOR REQUIREMENTS:

American Government	203	3
Democratic European Govts.	303	3
Totalitarian Governments	306	3
Constitutional Interpretation	401	3
World Politics & International		
Relations	402	3
Political Theory	426	3
Electives (must be in cognate		
history courses)	9	

27

A student may also take a teaching minor of 25 credits in political science.

## COURSES

203. **AMERICAN GOVERNMENT.** A survey of the origin and establishment of the constitution of the United States followed by a study of the executive, legislative, and judicial departments of the national government. State and municipal governments also receive consideration. Three credits spring. (51)

\*Not offered the current year.

\*303. **DEMOCRATIC EUROPEAN GOVERNMENTS.** An analysis of the nature of democracy including the origins and systems of contemporary governments of France, Western Germany, and the United Kingdom. Pre-requisite: History 101, 102, 103. Three credits; spring. (101)

306. **TOTALITARIAN GOVERNMENTS.** A study of the origins and politics of dictatorship in the modern world including a brief analysis of Fascist Italy, Nazi Germany, Communist China, and Communist Russia. Three credits; spring. (184)

401. **CONSTITUTIONAL INTERPRETATION.** The first part will be devoted to a brief survey of constitutional development followed by a careful study of the function of the judiciary in the American system of government. During the second part, important court decisions will be considered, with special emphasis upon those dealing with religion and the relation of church and state. Three credits; autumn. (151)

402. **WORLD POLITICS AND INTERNATIONAL RELATIONS.** A study of the political objectives of imperialistic nations, the position of the Vatican in world affairs, the relation between the League of Nations and the United Nations organization, with emphasis on the emergence of the United States as a world power. Three credits; winter. (152)

\*426. **POLITICAL THEORY.** A survey of the main schools of political thought from ancient times to the present, with emphasis on the development of democratic theories of government and the present-day clash of ideologies. Three credits; spring. (165)

## SOCIAL SCIENCE

The objectives of the courses in Social Science are to give an understanding of present-day problems in living, to prepare for social work, mission work, family life, and youth leadership.

### MINOR REQUIREMENTS:

Introduction to Sociology	204	3
The Field of Social Work	304	3
Personality and Leadership	442	2
Current Social Problems	445	3
Electives (may include Home Economics 210)	11	

### Required Cognates:

Political Science 203	3
Education 120 or 262	3

28

A student may also take a teaching minor of 25 credits in social science.

## COURSES

204. **INTRODUCTION TO SOCIOLOGY.** A course dealing with the fundamentals of group behavior, social conditions, and dynamics. Attention is also given to such phases as culture, groups, population trends, religion, institutions, social problems, theories and objectives. Three credits; autumn. (54)

\*Not offered the current year.

**225. MARRIAGE AND FAMILY LIFE.** A course designed to help a student make the physical, economic, and psychological adjustments necessary for happy marriage and parenthood; Christian philosophy and principles will be stressed; staff members and guest speakers will lecture and lead discussions. Two credits; winter. (65)

**304. THE FIELD OF SOCIAL WORK.** A survey of the fields and methods of social work; the growth, organization, and function of public and private programs in the field of social welfare. For the social worker, as well as for the professions of teaching, nursing, medicine, and the ministry. Field trips arranged. Three credits; autumn. (104)

**305. HUMAN RELATIONS.** A course which deals with the psychological, environmental, and social factors influencing human behavior. Emphasis is placed on the effective use of these factors for best interpersonal relationships between leaders and those with whom they work. Classes are conducted by lecture, case study discussions, and student reports. Two credits; winter. (105)

**308. CULTURAL FOUNDATIONS.** A survey of the cultural heritage of the race, the best in music, art, ancient literature, and other appreciations. Competent guest lecturers will frequently appear before the class. Three credits; winter. (108)

**310. THE FAMILY IN SOCIETY.** The student is introduced to problems confronting the family as a unit of society in modern life, including comparison of problems of an American family with those of other cultures. Two credits; autumn, winter, or spring. (Taught on the Portland campus only.) (116)

**349. WORLD GEOGRAPHY.** A survey course of the major groups of natural regions. Essentially human geography, but with adequate attention to economic and physical aspects. Three credits; spring. (129)

**\*421. PUBLIC OPINION AND PROPAGANDA.** A study of the problems and processes in the formation of public opinion and how public action may be organized through the use of propaganda and pressure groups. Consideration will be given to the influence of newspapers, magazines, pulpit, desk, radio, and television in molding thought. Three credits; autumn. (161)

**\*442. PERSONALITY AND LEADERSHIP.** The course is concerned with the phenomena that leadership and fellowship together comprise the gist of personality; furthermore, that certain behavior and personality traits possess special leadership value. The various areas of study concern: theories of leadership; social, mental, and executive leadership; and a further sequence—autocratic, paternalistic, and democratic leadership. Two credits; winter. (172)

**445. CURRENT SOCIAL PROBLEMS.** The course deals with the dimensions of social problems as regards role, status, stress, the ethical and intellectual implications of twentieth century material abundance with the consequent social pathologies, and such problems as adolescence, courtship and family, present conditions of the underprivileged, race, and community changes. Three credits; winter. (175)

**471. METHODS OF TEACHING SOCIAL SCIENCE.** Methods and techniques of teaching social studies on the secondary school level. Observation, demonstration, and class presentation are required of the students as a part of this course. Three credits; autumn. (197)

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\*Not offered the current year.

# HOME ECONOMICS

MISS WRIGHT, MRS. ZOLBER

The major in Home Economics is for those preparing to teach, whereas the major in Interior Design and Decoration is for those interested in such professional positions as interior decorator, Extension Service specialist, drapery or home furnishing consultant. The major in Foods and Nutrition meets all the requirements of the American Dietetic Association and prepares the student to enter a dietetic internship.

## HOME ECONOMICS MAJOR—REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

The teaching major of 45 credits and the teaching minor of 25 credits must be taken with the required education courses and cognates for state teacher certification. The courses required in this department are:

### Major:

Introductory Foods	101	3
Food Selection, Preparation and Purchasing	102	3
Meal Management	103	3
Human Nutrition	220	3
Art in Everyday Living	222, 223	6
Clothing Selection & Construction	242, 243	6
Household Management	346	3
Interior Decoration	424, 425	6
Advanced Nutrition	441	3
Methods of Teaching Home Economics	470	3
Seminar	493	1
Electives, upper division		5
		—
		45

### Required Cognates:

Biological Science 107
Chemistry 101-102-103

### Minor:

Introductory Foods	101	3
Food Selection, Preparation and Purchasing	102	3
Meal Management	103	3
Clothing Selection & Construction	242, 243	6
Household Management	346	3
Methods of Teaching Home Economics	470	3
Seminar	493	1
Electives, including two upper division (Counsel with the department chairman.)		5
		—
		27

**INTERIOR DESIGN AND DECORATION MAJOR—REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:**

Meal Management	103	3
Equipment	201	3
Human Nutrition	220	3
Consumer Buying	221	3
Art in Everyday Living	222, 223	6
Clothing Selection and Construction	242, 243	6
Textiles	269	2
Weaving and Home Furnishings	302	3
Textile Design	403	3
Interior Decoration	424, 425	6
Advanced Interior Decoration	486	3
Seminar	493	1
Electives, upper division		5
		—
		47

**Required Cognates:**

Industrial Education 121, 345  
Physical Education 344, 345 or 346  
Students must complete a minor in Art.

**FOODS AND NUTRITION MAJOR—REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE:**

Introductory Foods	101	3
Food Selection, Preparation and Purchasing	102	3
Meal Management	103	3
Equipment	201	3
Institution Food Preparation	286	3
Child Development	382	3
Experimental Cookery	421, 422	6
Advanced Nutrition	441, 442	6
Diet in Disease	443	3
Institution Food Purchasing	447	3
Institution Management	448	3
Methods of Teaching Home Economics	470	3
Seminar	493	1
Electives (Soc. Sc. 225 does not apply)		2
		—
		45

**Required Cognates:**

Chemistry 144-145-146, 301-302-305 or 324-325-326, 460 and Course work specified by the American Dietetic Association for internship.

**Minor:**

Introductory Foods	101	3
Food Selection, Preparation and Purchasing	102	3
Meal Management	103	3



### **THE ROGERS ELEMENTARY SCHOOL**

**This school is an integral part of the campus and its life; here college students test newly learned skills of teaching in real-life situations.**

Human Nutrition	220	3
Institution Food Preparation	286	3
Experimental Cookery	421, 422	6
Advanced Nutrition	441, 442	6
Diet in Disease	443	3
	—	
	30	

This minor is not considered preparation for secondary teaching.

## COURSES

101. **INTRODUCTORY FOODS.** Basic food preparation with emphasis on principles underlying the science of food and nutrition. Three credits; autumn. (1)

102. **FOOD SELECTION, PREPARATION, AND PURCHASING.** Principles of food economics, problems of purchasing in today's market, and preparation to retain maximum nutritive values and palatability. Three credits; winter. (2)

103. **MEAL MANAGEMENT AND TABLE SERVICE.** Managerial aspects of planning, preparing and serving food for family meals and special occasions. Prerequisite: 101, 102 or 220 or equivalent. Three credits; spring. (3)

\*201. **EQUIPMENT.** Selection, operation and care of household and institutional appliances, electricity in the home and kitchen planning. Three credits; autumn. (51)

210. **SOCIAL AND PROFESSIONAL ETHICS.** A course designed to develop an understanding of the current social code for both men and women and to provide experience in its application to college life, home and community living. Acceptable modes of interacting in social and professional situations are presented. Two credits; autumn or winter. (67 or 68)

220. **HUMAN NUTRITION.** A study of the principles of nutrition and the diet essential for promoting a high degree of physical fitness. A valuable course for the general student, especially those preparing for the ministry, teaching or physical education. Three credits; winter or spring. (92 or 93)

221. **CONSUMER BUYING.** A study of the consumer's problems in buying textiles, clothing, household equipment and furnishings with emphasis on the economic principles involved. Three credits; autumn. (61)

222, 223. **ART IN EVERYDAY LIVING.** Introduction in the use of art elements giving consideration to line, form and color as applied in the fundamental principles of design and the various aspects of the home, clothing and everyday living. Problems in selecting and designing. Course 182 prerequisite for 183. Three credits; winter, spring. (42, 43)

225 Soc. Sc. **MARRIAGE AND FAMILY LIFE.** See Social Science. (65)

241. **CLOTHING FUNDAMENTALS.** A course presenting the fundamental processes of hand and machine sewing; construction and selection of simple garments. Three credits; autumn. (71)

\*Not offered the current year.

242, 243. **CLOTHING SELECTION AND CONSTRUCTION.** Aims to develop good taste in dress and to give an appreciation in selection of clothing from standpoint of beauty, health, and economy; fundamental processes of hand and machine sewing; study of alterations, fitting problems and use of commercial patterns; construction of garments using cotton, wool, rayon and other materials; consideration of fabrics to determine fundamental differences and to develop judgment in buying clothing. Prerequisite: 241 or its equivalent. Three credits; winter, spring. (72, 73)

269. **TEXTILES.** A study of fabrics to determine fundamental differences and to develop judgment in buying clothing and house furnishing materials. Two credits; spring. (88)

286. **INSTITUTION FOOD PREPARATION.** Instruction and laboratory experience in large quantity food preparation, and food cost control. This course is primarily for those interested in actual preparation of food in college and academy cafeterias. Prerequisite: 101, 102, 103. Three credits; spring. (94-95)

302. **WEAVING AND HOME FURNISHINGS.** The study of the development of weaving, color harmonies and design as applied to fabrics. Construction of hand-woven materials; tailoring draperies, bedspreads and slip covers. Prerequisite: 222 or equivalent. Three credits; winter. (103)

346. **HOUSEHOLD MANAGEMENT.** Management problems of the homemaker in regard to income, time, labor, and family relationships. Study of the selection, operation, care and arrangement of household equipment. Three credits; spring. (126)

\*382. **CHILD DEVELOPMENT.** A study of the care and development of young children, with special reference to home education. Three credits; winter. (142)

403. **TEXTILE DESIGN.** Study of line, texture, and color as applied to weaving. Emphasis on originality in construction and color combinations of hand-woven fabrics. Prerequisite: 302 or equivalent. Three credits; spring. (153)

421, 422. **EXPERIMENTAL COOKERY.** Development of experimental methods; their application of investigations in cookery and the skills involved; acquaintance with the literature in this field; preparation of the student for independent investigations in foods. Prerequisite: 101, 102, 103, and Chemistry 101-102-103 or 144-145-146 or equivalent. Three credits; autumn, winter. (163)

424, 425. **INTERIOR DECORATION.** A study of period furniture and the decorative arts of the past as a background for an understanding of what is good, true and beautiful in home decoration; instruction in and application of the principles governing the selection of furniture, textiles, pictures, and other furnishings for the home and their arrangement with appropriate backgrounds. Prerequisite: 424 or equivalent for 425; 222, 223 highly desirable. Three credits; autumn, winter. (164, 165)

\*441, 442. **ADVANCED NUTRITION.** A scientific study of nutrition involving digestion and metabolic processes and products; selection of an optimum diet for health; recent investigations of nutritional deficiency diseases. Prerequisite: 101, 102, 103; 220 and Chemistry 101-102-103 or 144-145-146. Three credits; autumn, winter. (171, 172)

\*Not offered the current year.

**\*443. DIET IN DISEASE.** Recent developments in the dietary treatment of disease in which nutrition plays a major role. Experience in independent use of journal literature in the field. Prerequisite: 441, 442 or equivalent. Three credits; spring. (173)

**\*447. INSTITUTION FOOD PURCHASING.** Marketing operations, buying procedures, food selection and care. Inspection of merchandise at markets and wholesalers. Prerequisite: 101, 102, 103. Three credits; autumn. (177)

**\*448. INSTITUTION MANAGEMENT.** Principles of organization, qualifications for institution managers, purchasing and maintenance of equipment, planning of work, budget analysis. This course offers practical work in the school cafeteria for those who are interested in being managers in institution food services. Prerequisite: 101, 102, 103. Three credits; winter. (178)

**461-462. TAILORING.** Principles involved in making suits and coats for women. Open only to those who show skill in construction of garments. Students should provide themselves with material for making coats the autumn quarter. Prerequisite: 241, 242, 243 or equivalent. Two credits; autumn, winter. (181-182)

**471. METHODS OF TEACHING HOME ECONOMICS.** The principles and practices of teaching home economics on the elementary and secondary levels, as well as adult education classes. Special attention will be given to the newer methods of presentation in classroom, laboratory and community demonstrations. Observation, demonstration, and class presentation are required of the students as a part of this course. Three credits; autumn. (197)

**477, 478, 479. SPECIAL PROBLEMS IN HOME ECONOMICS.** Directed, independent study in an approved area. The student will be required to read widely on an assigned subject, follow regular research methods and present a paper showing competence in and extent of his study. Open only to majors and minors. Permission from the chairman of the department required. One to three credits any quarter. Maximum, three credits; autumn, winter, spring. (191, 192, 193)

**486. ADVANCED INTERIOR DECORATION.** Advanced study in interior decoration with advice, estimates, and actual work on decorating problems. Should be taken the last quarter of the senior year. Prerequisite: 222, 223; 424, 425 or equivalent. Three credits; spring. (196)

**\*493. SEMINAR.** Studies of selected topics and reviews of current literature. Special investigation of problems. One credit; spring. (186)

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<sup>88-101</sup>  
\*Not offered the current year.

# INDUSTRIAL EDUCATION

MR. TRAUTWEIN, MR. BOND, MR. CANADAY, MR. COWIN, MR. FARNSWORTH, MR. WOLFE

The purpose of the department is to prepare students for teaching industrial arts, and for vocational-technical training. Opportunity is offered for considerable freedom in course preferences. The offerings allow concentrations in the following areas:

Automotive	Metals
Graphics	Woods

Students preparing for teaching should select in conference with the major professor, a combination of the areas offered. Terminal courses, to meet individual needs, are also offered. Upon completion of the prescribed courses, a certificate will be awarded.

Any laboratory course will carry credit toward the general vocational graduation requirement. Admission to all laboratory classes is by permission of the instructor.

## MAJOR REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE:

A minimum of 54 credits including 24 upper division credits.

Industrial Education 104-105-106 except when a minimum of 33 hours of Graphics is included.

Senior Problem 488

The following courses are also required:

Mathematics 110 or 120

Physics 181, 182, 183 or Chemistry 144-145-146

## MINOR REQUIREMENTS:

A minimum of 27 credits including 6 upper division credits.

Industrial Education 104-105-106 except when a minimum of 17 hours of Graphics is included.

## TEACHING MAJOR AND MINOR:

The teaching major of 45 credits and the teaching minor of 25 credits must be taken together with the required education courses and cognates for state teacher certification. The required courses in this department are:

Mechanical Drawing	104-105-106	6
Woodwork	221, 222, 223	6
or		
Minimalic Carpentry	224-225-226	
Machine Tool Practice I	244-245-246	6
or		
Welding	204-205-206	
Electricity-Electronics	231, 232, 233	6
or		
Printing	144, 145-146	
Industrial Crafts	110, 247, 248, 249	6
or		
Auto Mechanics	101, 102, 103	
Course Construction	387	3
Senior Problem	488	1
Electives, upper division (Counsel with the department chairman.)		11

In order to prepare a teacher adequately in this field, the following related courses must also be completed. No minor is required.

Intermediate Algebra	110	4
or		
College Algebra	120	
Lettering	121, 122, 123	3
General Physics	181, 182, 183	12
or		
Inorganic Chemistry	144-145-146	
Industrial Arts Design	264	3
Special Problems in I.E.	477, 478, 479	3
<b>Minor:</b>		
Mechanical Drawing	104-105-106	6
Industrial Arts Design	264	3
Course Construction	387	3
Shop Administration	389	3
Electives, including 6 upper division (Counsel with the department chairman.)		10

## PROFESSIONAL

264. **INDUSTRIAL ARTS DESIGN.** Basic principles of design as applied to the various industrial arts, including theory of color and study of major periods and styles of furniture. Three credits; autumn. (84)

387. **COURSE CONSTRUCTION.** Establishment of objectives, analysis and selection of content, course of study outline, lesson plans, standards of attainment. Required prior to Directed Teaching. Three credits; autumn. (147)

389. **SHOP ADMINISTRATION AND PLANNING.** School shop planning, supplies, personnel organization and guidance, and shop management. Required prior to Directed Teaching. Three credits; spring. (149)

\*448. **HISTORY OF INDUSTRIAL ARTS.** Origin and growth of industrial arts, emphasizing aims and objectives in the field of education. Two credits; winter. (178)

472. **METHODS OF TEACHING INDUSTRIAL ARTS.** Methods and techniques in selection, presentation, and testing content material in industrial subjects. Observation, demonstration, and class presentation are required of the students as a part of this course. Prerequisite: 387. Required prior to Directed Teaching. Three credits; winter. (197)

477, 478, 479. **SPECIAL PROBLEMS IN INDUSTRIAL EDUCATION.** Supervisory experience for prospective teachers or tradesmen, research problems, or teaching-aid construction. Area to be selected in counsel with department chairman. Prerequisite: lower division work in same area for supervisory or teaching-aid construction. Six credits maximum from this and/or Special Projects. Autumn, winter, spring. (191, 192, 193)

## AUTOMOTIVE

101, 102, 103. **AUTOMOTIVE MECHANICS.** A comprehensive basic course in the construction details and service adjustments of the automobile with disassembly, inspection and reassembly of units in the laboratory. Autumn, engine units; winter, automotive electricity; spring, chassis units. Two credits; autumn, winter, spring. (1, 2, 3)

\*Not offered the current year.

209. **GENERAL BODY AND FENDER REPAIR.** Fundamentals of automobile sheet metal, its repairability and basic operations used in reshaping and refinishing. Prerequisite: 204 or equivalent. Two credits; spring. (59)

301. **ENGINE MAINTENANCE AND REPAIR.** Special attention to removal, disassembly, inspection, repair and reassembly of the automotive engine. Prerequisite: 101 or equivalent. Three credits; autumn. (101)

302. **AUTOMATIC TRANSMISSION SERVICE.** Special attention given to hydraulic drives and planetary gearing with practice on the G. M. Hydromatic transmission and a survey of other makes. Prerequisite: 103 or equivalent. Three credits; winter. (102)

303. **ENGINE TUNE-UP.** Special attention to the fuel and electric systems, trouble shooting and testing engine performance. Prerequisite: 101, 102 or equivalent. Three credits; spring. (103)

## **GRAPHICS**

104-105-106. **TECHNICAL DRAWING.** Technical drawing including: care and use of instruments; geometry; orthographic, oblique, and isometric projections; auxiliary views; sections; revolutions; working drawings; developments and intersections; and architectural drawing. Application to practical problems with emphasis on visualization and analysis. Two credits; autumn, winter, spring. (4-5-6)

\*121, 122, 123. **LETTERING.** Learning to make the alphabet with pen or brush. Certain basic principles of proportion and design serve as a foundation upon which great variety may be built. One credit; autumn, winter, spring. (11, 12, 13)

144, 145-146. **PRINTING.** Letterpress printing, straight and display composition, typographical design, imposition and simple presswork. Two credits; autumn, winter, spring. (24, 25-26)

162. **PHOTOGRAPHY I.** Basic principles involved in both color and black-and-white. Theory and practice of exposure, development, contact printing, and enlarging. Study of various types of equipment. Two credits; winter. (32)

284-285-286. **LINOTYPE COMPOSITION.** Care and operation of the linotype machine, study of the assembling, casting, and distributing mechanisms, keyboard practice and composition of straight matter, tabular forms, and display work. Prerequisite: 144, 145-146 or equivalent. Two credits; autumn, winter, spring. (107-108-109)

305. **PRINTING MANAGEMENT.** Operating management of a commercial printing plant, purchasing of equipment and supplies, inventory control, pricing, personnel and production supervision. Two credits; winter. (105)

321-322-323. **PRINTING PRESS OPERATION.** Hand-fed and automatic presswork. Instruction in the preparation of jobs for the press and make-ready, as well as the care and operation of the presses. Prerequisite: 144, 145-146 or equivalent. Two credits; autumn, winter, spring. (91-92-93)

327-328-329. **OFFSET LITHOGRAPHY.** Laboratory experience in offset photography, plate making, cold type composition, and presswork. Prerequisite: 144, 145-146 or equivalent. Three credits; autumn, winter, spring. (117-118-119)

\*Not offered the current year.

**\*362. ADVANCED LITHOGRAPHIC PHOTOGRAPHY AND PLATE-MAKING.** Preparation of lithographic negatives, from black-and-white through process color; advanced stripping, platemaking. Prerequisite: 327-328-329 or equivalent. Two credits; winter. (132)

**363. PHOTOGRAPHY II.** Composition, photochemistry, optics, and advanced study of printing, enlarging and processing of chromatic and monochromatic mediums, with manipulative experience. Camera required. Prerequisite 162 or equivalent. Three credits; spring. (133)

**370. PHOTOGRAPHIC ASSIGNMENTS.** Experience in commercial photographic assignments embodying shooting, processing, and finishing prints for publication. Prerequisite 363 or equivalent. One credit; autumn, winter, or spring. (134, 135 or 136)

## INDUSTRIAL CRAFTS

**110. BOOKBINDING.** Practical basic course in the art and craft of bookbinding, designed to afford the student a comprehensive knowledge of the steps in the process of rebinding books, and applied crafts. Two credits; winter or spring. (22 or 23)

**247. LEATHERS.** Technical information and fundamental operation including tooling, carving, stamping, lacing, modeling, forming, and finishing. Two credits; autumn. (124, 125 or 126)

**\*248. ART METALS.** Utilization of semi-precious metals to develop skills in metal spinning, and craft work in copper, brass, aluminum, and pewter with processes applied to projects of practical value and artistic merit. Two credits; winter.

**\*249. PLASTICS.** Technical information and operation including carving, molding, crafting, forming, fabricating, and finishing. Two credits; spring.

## METALS

**204, 205, 206. WELDING.** Basic gas welding, oxyacetylene cutting, braze welding and brazing, techniques of electric welding, and specialized processes with direct emphasis on production of assigned and student-selected projects. Course 204 is prerequisite to 205, and 205 is prerequisite to 206. Two credits; autumn, winter, spring. (54, 55, 56)

**241-242-243. SURVEY OF METAL PRACTICE.** Particularly for mechanical engineering and physics majors, but is open to Industrial Education majors and minors who have taken no credits in metals. Gives a broad introduction to manufacturing operations, with factors influencing design and production. Three credits; autumn, winter, spring. (71-72-73)

**\*244-245-246. MACHINE TOOL PRACTICE I.** Theory and manipulation of basic machine tools, bench work, hand operations, and machine operations combined with prescribed and student-selected projects. Two credits; autumn, winter, spring. (74-75-76)

**\*346. SHEET METAL.** Pattern drafting, development and construction of both assigned and student-selected projects. Prerequisite: 104-105-106 or equivalent. Two credits; spring. (126)

**381-382-383. MACHINE TOOL PRACTICE II.** Advanced processes of turning and hand work together with operations involving milling, shaping, and grinding, gear calculation and cutting, with assigned exercises, together with student-selected projects. Prerequisite: 244-245-246 or equivalent. Two credits; autumn, winter, spring. (141-142-143)

\*Not offered the current year.

## WOODS

181, 182, 183. **WOOD TURNING I.** Spindle, face plate, and chuck turning. Assigned projects, and original designs, including finishing. Two credits; autumn, winter, spring. (41, 42, 43)

221, 222, 223. **COLLEGE WOODWORK.** Working drawings, hand and machine operations, and finishings as applied to basic furniture construction and cabinet making. Two credits; autumn, winter, spring. (61, 62, 63)

224-225-226. **MINIMALIC CARPENTRY.** Application of carpentry fundamentals including actual construction in miniature from architect's plans; laboratory work in framing of rafters and selected architectural sections with full-size lumber. Two credits; autumn, winter, spring. (64-65-66)

320. **WOOD TURNING II.** Intricate cuts, special chucking devices, fancy turning, metal spinning. Prerequisite: two credits from 181, 182, 183. One credit; autumn, winter, or spring. (127, 128 or 129)

\*325. **WOODWORKING MACHINES.** Power machines, jigs, attachments, as applied to furniture making. Prerequisite: 221, 222, 223 or equivalent. Three credits; winter. (115)

341, 342, 343. **ADVANCED WOODWORK.** Advanced operation with power machines, finishing methods and design. Assigned and student-selected projects. Prerequisite: 221, 222, 223 and 264 or equivalent. Course 264 may be concurrent. One credit; autumn, winter, spring. (121, 122, 123)

## GENERAL

231, 232, 233. **ELECTRICITY-ELECTRONICS.** An introduction to the electron theory, direct and alternating current, vacuum tubes, transistors and basic circuits studied by lecture, laboratory experiments, and project construction. Two credits; autumn, winter, spring.

330. **MACHINE AND TOOL MAINTENANCE.** Methods of care and maintenance of tools, machines, and supplementary equipment. Selection may be made in field of printing, metals, or woodworking. Prerequisite: adequate background in chosen fields. One or two credits; autumn, winter, or spring. (154, 155 or 156)

345. **FINISHING MATERIALS AND METHODS.** Composition and application of finishing materials, selection and care of equipment. Two credits; winter. (125)

484, 485, 486. **SPECIAL PROJECTS.** Advanced laboratory work in a chosen area, to be selected in counsel with the department chairman. Six credits maximum from this and/or Special Problems in Industrial Education. Prerequisite: lower division work in chosen area. Autumn, winter, spring. (194, 195, 196)

488. **SENIOR PROBLEM.** A student-selected, department-approved project to demonstrate ability to perform in the field; and involving an associated research report, the final accepted copy of which must be on file in the department no later than four weeks before graduation. One credit; winter. (198)

\*Not offered the current year.

# MATHEMATICS

MR. HARE, MR. PERRYMAN, MRS. SCHLOTTHAUER

## MAJOR REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

A minimum of 45 credits including 21 upper division credits.

## MAJOR REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE:

A total of 90 credits in mathematics and science is required. Forty-five credits must be mathematics, and the remaining 45 credits must include an elementary course in physics and an elementary course in either biology or chemistry.

## MINOR REQUIREMENTS:

A minimum of 28 credits including 4 upper division credits.

## TEACHING MAJOR AND MINOR:

The teaching major of 45 credits and the teaching minor of 25 credits must be taken together with the required education courses and cognates for state teacher certification. The required courses in this department are:

### Major:

College Algebra	120	4
Plane Trigonometry	130	4
Anal. Geom. & Calculus	181, 182, 183, 184	16
Intro. to the Theory of Numbers	301-302	4
College Geometry	401	4
Intro. to Mod. Algebra	403	4
Selected Topics in Math.	480	1
Electives (Counsel with the department chairman)	8-16	

### Minor:

College Algebra	120	4
Plane Trigonometry	130	4
Anal. Geom. & Calculus	181, 182, 183, 184	16
Selected Topics in Math.	480	1
Electives (Counsel with the department chairman)	0-8	

Placement in freshman mathematics courses is based on results of the Washington Pre-College Differential Guidance Test. Freshmen who pass a qualifying test may register for Mathematics 181.

## COURSES

110. **INTERMEDIATE ALGEBRA.** Factoring, fractions, linear equations, functions, graphs, systems of equations, radicals, exponents, quadratic equations. Does not apply on a mathematics major or minor. Four credits; autumn. (1)

120. **COLLEGE ALGEBRA.** A brief review of topics included in mathematics 110, binomial theorem, ratio, proportion, variation, progressions, mathematical induction, complex numbers, determinants. Four credits; autumn or winter. (21)

130. **PLANE TRIGONOMETRY.** A study of the six trigonometric functions and their application in the solving of triangles, logarithms, trigonometric identities, complex numbers. Prerequisite: 120 or one and one-half units of algebra. Four credits; winter or spring. (22)

**181. ANALYTIC GEOMETRY AND CALCULUS.** An integrated course in which topics of analytic geometry are introduced as needed in developing the topics in calculus. Four credits; autumn or spring. (41)

**182. ANALYTIC GEOMETRY AND CALCULUS.** A continuation of Mathematics 181. Prerequisite: 181. Four credits; autumn or winter. (42)

**183. ANALYTIC GEOMETRY AND CALCULUS.** A continuation of Mathematics 182. Prerequisite: 182. Four credits; winter or spring. (43)

**184. ANALYTIC GEOMETRY AND CALCULUS.** A continuation of Mathematics 183. Prerequisite: 183. Four credits; autumn or spring. (44)

**301-302. INTRODUCTION TO THE THEORY OF NUMBERS.** Congruences, continued fractions, Diophantine equations, quadratic residues. Two credits; autumn, winter.

**303. INTRODUCTION TO MATHEMATICAL STATISTICS.** Probability, discrete and continuous distribution functions, sampling, correlation, regression, testing of hypotheses. Prerequisite: 184. Two credits; spring. (103)

**321. DIFFERENTIAL EQUATIONS.** Solutions of various types of differential equations with applications to problems in physics, engineering, and geometry. Prerequisite: 184. Four credits; autumn. (161)

**322. DIFFERENTIAL EQUATIONS.** A continuation of mathematics 321 with emphasis on solutions of partial differential equations. Prerequisite: 321. Two credits; winter. (162)

**324. ADVANCED CALCULUS.** Continuity, differentiation, integration, vector calculus. Prerequisite: 184. Two credits; winter. (164)

**325. ADVANCED CALCULUS.** A continuation of Mathematics 324: vector calculus, integral calculus of functions of several variables, infinite series, Fourier series, boundary value problems. Prerequisite: 324. Four credits; spring. (165)

**401. COLLEGE GEOMETRY.** A course in advanced Euclidean plane geometry, including properties of the triangle, similarity, and harmonic points and lines. Four credits; autumn. (151)

**402. INTRODUCTION TO MODERN ALGEBRA.** Groups, rings, ideals, integral domains, fields. Four credits; winter. (153)

**403. MATRIX THEORY.** Vector spaces, equivalence, congruence, similarity, characteristic roots. Four credits; spring.

**441, 442, 443. INTRODUCTION TO MATHEMATICAL ANALYSIS.** Elements of set theory, numerical sequences and series, sequences and series of functions, continuity, convergence, differentiation, Riemann-Stieltjes integration, Lebesgue integration. Prerequisite: 325. Four credits; autumn, winter, spring. (171, 172, 173)

**471. METHODS OF TEACHING MATHEMATICS.** Methods, materials, and techniques of teaching mathematics on the secondary school level. Observation, demonstration, and class presentation are required of the students as a part of this course. Three credits; autumn. (197)

**480. SELECTED TOPICS IN MATHEMATICS.** Individual work to be carried on by the student under the supervision of the instructor, and elected only after consultation with the head of the department. One or two credits. (190)

# MODERN LANGUAGES

MISS SORENSEN, MR. STOEHR

The objectives of the courses in modern foreign languages are to develop the ability to speak, read, and write the language with sufficient competence to gain understanding of the culture where the language is spoken, to prepare students to teach the language, and to prepare for mission service.

The department offers majors in German and Spanish and minors in German and Spanish.

## MAJOR REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

A minimum of 40 credits beyond the elementary courses, 27 of these must be on the upper division level.

## MINOR REQUIREMENTS:

A minimum of 24 credits beyond the elementary courses, nine of these must be on the upper division level.

## TEACHING MAJOR AND MINOR:

The teaching major of 45 credits and the teaching minor of 25 credits must be taken together with the required education courses and cognates for state teacher certification. The required courses in Spanish are:

### Major:

Intermediate Spanish	201, 202, 203	9
Spanish Composition	204, 205, 206	6
Intro. Spanish Literature	301, 302, 303	9
Spanish Pronunciation	402	2
Spanish Directed Reading	404	1-9
Adv. Spanish Conversation	409	2
Spanish Essay	421	3
Latin American Literature	425, 426	6

### Minor:

Intermediate Spanish	201, 202, 203	9
<b>Elect 16 credits from the following:</b>		
Spanish Composition	204, 205, 206	6
Intro. Spanish Literature	301, 302, 303	9
Spanish Pronunciation	402	2
Spanish Directed Reading	404	1-9
Adv. Spanish Conversation	409	2

## SPANISH

201, 202, 203. **INTERMEDIATE SPANISH.** Selected readings from standard Spanish authors. A course designed for intermediate students who desire a reading knowledge. Prerequisite to any advanced course in literature. Three credits; autumn, winter, spring. (51, 52, 53)

204, 205, 206. **SPANISH COMPOSITION AND CONVERSATION.** Grammar and composition drills and idioms. Two credits; autumn, winter, spring. (54, 55, 56)

301, 302, 303. **INTRODUCTION TO SPANISH LITERATURE.** A survey of the history of Spanish literature; lectures, reports, outside reading; the main currents of the development of the various branches of Spanish literature with a study of representative works. Three credits; autumn, winter, spring. (101, 102, 103)

\*402. **SPANISH PRONUNCIATION.** An analysis of the difficulties of Spanish pronunciation; abundance of individual drill and practical directions for remedial exercises. Two credits; winter. (152)

404, 405, 406. **SPANISH DIRECTED READING.** The work consists of assigned readings and reports. Prerequisite: 301, 302, 303. One to three credits; autumn, winter, spring. (154, 155, 156)

\*409. **ADVANCED SPANISH CONVERSATION.** Practice in conversation for those preparing to teach. Prerequisite: 204, 205, 206. Two credits; spring. (159)

421. **SPANISH ESSAY.** A study of the important Spanish essayists and their representative essays. Three credits; autumn. (161)

425, 426. **LATIN AMERICAN LITERATURE.** A survey of Latin American literature with special emphasis on the South American authors. Three credits; winter, spring. (165, 166)

## FRENCH

101-102-103. **ELEMENTARY FRENCH.** Thorough grammatical analysis. Emphasis given to reading and the acquisition of a working vocabulary. The foundation of formal instruction in composition is laid in dictation and memorization. Offered upon sufficient demand. Five credits; autumn, winter, spring. (1-2-3)

201, 202, 203. **INTERMEDIATE FRENCH.** Selected readings from standard French authors. A course designed for intermediate students who desire a reading knowledge. Three credits; autumn, winter, spring. (51, 52, 53)

404, 405, 406. **FRENCH DIRECTED READING.** The work consists of assigned readings and reports. One to three credits, maximum, six; autumn, winter, spring.

## GERMAN

A teaching minor of 25 credits is available in German. Consult with the instructor for courses.

101-102-103. **ELEMENTARY GERMAN.** Thorough grammatical analysis. Emphasis given to reading and the acquisition of a working vocabulary. The foundation of formal instruction in composition is laid in dictation and memorization. Practice in free oral and written expression. Five credits; autumn, winter, spring. (1-2-3)

201, 202, 203. **INTERMEDIATE GERMAN.** Continued analysis of the language; training in written and oral expression; composition, syntax, dictation; reading of modern literature with oral and written reports; increasing use of German in the classroom. Three credits; autumn, winter, spring. (51, 52, 53)

204-205-206. **GERMAN COMPOSITION AND CONVERSATION.** A comprehensive and thorough review of grammar; facility in oral and written expression; study of common idioms; analysis of difficult points of German syntax. Two credits; autumn, winter, spring. (54-55-56)

\*Not offered the current year.

301, 302, 303. **INTRODUCTION TO GERMAN LITERATURE.** A survey of the history of German literature from its beginning to the nineteenth century, supplemented by a study of some of the masterpieces of the language; reading from lyric and epic poetry of the period of the Minnesanger; plays and songs of the fifteenth and sixteenth centuries. Three credits; autumn, winter, spring. (101, 102, 103)

309. **SCIENTIFIC GERMAN.** This course is designed especially for students who intend to enter a medical school, or who wish to acquire facility in reading German in the various fields of science. Prerequisite: 201, 202, 203. Three credits; spring. (109)

\*403. **MODERN GERMANY AND ITS LITERATURE.** In this course contemporary cultural developments in Germany will be discussed and examined. They will be illustrated by readings from modern German prose, lyric poetry, and dramas. Reports. Newspaper reading. Three credits; spring. (153)

404, 405, 406. **GERMAN DIRECTED READING.** The work consists of assigned readings in the library and written reports. Prerequisite: 301, 302, 303. One to three credits; autumn, winter, spring. (154, 155, 156)

\*421. **GERMAN ROMANTICISM.** A study of the social, philosophical, and religious influences on the literature of the period, illustrated in works of the most representative authors. Lectures, collateral reading, and reports. Three credits; autumn. (161)

\*422. **CLASSIC GERMAN LITERATURE.** A careful study of the works of Goethe, Schiller, and Lessing, illustrating their influence upon the intellectual movements of their own and subsequent times. Critical study of Goethe's *Hermann and Dorothea*; Schiller's *Wallenstein*; Lessing's *Nathan der Weise*. Three credits; winter. (162)

423. **ADVANCED GERMAN COMPOSITION AND CONVERSATION.** Advanced composition, conversation, and reading; increased oral practice; emphasis on fluency and accuracy in comprehension and reproduction; a comprehensive review of grammar; acquisition of an extended vocabulary; instruction largely in German; offered upon sufficient demand. Three credits; spring. (163)

470. **METHODS OF TEACHING MODERN LANGUAGES IN THE SECONDARY SCHOOL.** The principles and practices of teaching modern languages: newer methods used in both classroom and laboratory; voice machine techniques, selection of material and equipment. Observation, demonstration, and class presentation are required of the students as a part of this course. Prerequisite: 20 credits in one language on the college level. Three credits; autumn, winter or spring. (197)

477, 478, 479. **SPECIAL PROBLEMS IN MODERN LANGUAGES.** Directed, independent study in an approved area. The student will be required to read widely on an assigned subject, follow regular research methods, and present a paper showing competence in and extent of his study. Open only to majors and minors. Permission from the chairman of the department required. One to three credits any quarter. Maximum, three credits. Autumn, winter, spring. (191, 192, 193)

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\*Not offered the current year.

# MUSIC

MR. WEST, MR. DAVIS, MR. HAFNER, MR. LENO, MISS OWEN, MR. RANDOLPH, MISS RHODES

The department offers instruction for those who wish to choose music as a career and for those who wish to develop a cultural appreciation of music. Walla Walla College offers two curriculums in music, the Bachelor of Music with concentration in performance or music education, and the Bachelor of Arts.

## BACHELOR OF MUSIC

Students seeking preparation for a music profession should choose the Bachelor of Music degree and major in Piano, Organ, Voice, Band or Orchestral Instruments, or Music Education. Preparatory work in chosen major and a natural gift for music are prerequisites. Sincerity of purpose, application, and aptitude must be demonstrated during the first year before full status as a major student is granted. An examination in the basic elements of music is administered at the beginning of each school year to determine the student's qualification for entering the freshman theory course.

Participation in a musical organization is required for each quarter in residence. Voice majors must be in a choral group, string majors in the symphony, and brass and woodwind majors in the symphony or band. Piano and organ majors may elect up to six credits of Ensemble as partial fulfillment of the organizational requirement.

Attendance at two departmental recitals and three professional concerts is required for each quarter in residence. Attendance is also required of all majors at the Music Forum which meets at the regular departmental club time.

### REQUIREMENTS FOR A BACHELOR OF MUSIC DEGREE WITH MAJORS IN PIANO, ORGAN, VOICE, BAND OR ORCHESTRAL INSTRUMENTS:

First Year		Second Year	
Religion	6	Religion	6
Freshman Composition	9	Applied Major	12
Phil. of Christian Education	2	Theory II	9
Applied Major	12	Band, Choir, Orchestra or Small Ensemble	3
Theory I	9	Humanities	6
Band, Choir, Orchestra or Small Ensemble	3	Physical Education	1½
Physical Education	1½	Electives	12
Electives	6		
	48½		49½
Third Year		Fourth Year	
Religion	6	Applied Major	12
Applied Major	12	Hist. & Lit. of Music, 1750—	6
Hist. & Lit. of Music—1750	6	Counterpoint	6
Voice Methods	3	Orchestration	6
Conducting	6	Composition	6

Analytical Techniques	6	Band, Choir, Orchestra or Small Ensemble	3
Band, Choir, Orchestra or Small Ensemble	3	Electives	9
Electives	6		
	—		
	48		

A recital during both the junior and senior years is required. This curriculum does not prepare the student for denominational or state teaching certification. Voice majors who have had two units of French or German on the secondary level must register for one year of French or German, whichever language the student has not had. If the student has not had French or German on the secondary level, he must register for one year each of French and German.

**REQUIREMENTS FOR A BACHELOR OF MUSIC DEGREE WITH A MAJOR IN MUSIC EDUCATION:**

First Year		Second Year	
Religion	6	Religion	6
Freshman Composition	9	General Psychology	3
Science	12	Intro. to Education	3
Phil. of Christian Education	2	History of Civilization	9
Major Performance	6	Literature	6
Theory I	9	Major Performance	6
Piano	3	Theory II	9
Musical Organization	3	Instrumental Methods	3
Physical Education	1½	Musical Organization	3
	—	Physical Education	1½
	51½		
			49½

Third Year		Fourth Year	
Religion	6	Major Performance	6
Major Performance	6	Hist. & Lit. of Music, 1750—	6
Hist. & Lit. of Music—1750	6	Analytical Techniques	6
Counterpoint	6	Orchestration	6
Music in the Elem. School	3	Voice Methods	3
Meth. of Teach. Music in the Sec. Sch.	3	Conducting	6
Educational Psychology	3	Musical Organization	3
Educational Evaluation	3	Directed Teaching	12
Human Growth & Dev.	3		48
History of the Pac. Northwest	3		
Instrumental Methods	2		
Musical Organization	3		
	—		
	47		

A joint senior recital (or solo recital) is required of all candidates for this degree. This curriculum prepares the student for teaching in our denominational educational system and results in denominational certification as well as obtaining the Provisional General Certificate for the State of Washington.

## BACHELOR OF ARTS

The Bachelor of Arts degree is a nonprofessional degree with a total of 21 credits in one applied instrument. The prerequisites are completion of the preparatory work in the chosen major instrument and a natural gift for music. Candidates for this degree must meet all arts degree requirements.

### MAJOR REQUIREMENTS:

Theory I, II	18
Applied Music	19
Music History	12
Music Electives: Composition, Counterpoint, Analytical Techniques, Orchestration	6
Band, Choir, Orchestra, or Small Ensemble	3
Joint Senior Recital	2
	—
	60

The following course is also required: History 101, 102, 103

### MINOR REQUIREMENTS:

A minimum of 30 credits including Introduction to Music, History of Music I or II, Theory I, 6 credits of Applied Music, and 3 credits of Ensemble.

## THEORY AND COMPOSITION

100. **FUNDAMENTALS OF MUSIC.** A basic course intended to lay a foundation in the following: notation, rhythm, scales, key-signatures, chords, terms, form, and sight-singing. This course may not be counted toward a major or minor in music. Two credits; autumn or spring. (1, 3)

104-105-106. **THEORY I.** A study of the science of music with a presentation of its essential elements through part writing, sight-singing, ear training, and keyboard harmony. Prerequisite: 100 or its equivalent. Three credits; autumn, winter, spring. (4-5-6)

204-205-206. **THEORY II.** A continuation of Theory I which will include a study of contemporary harmonic techniques as exhibited in twentieth century musical practice. Prerequisite: 104-105-106. Three credits; autumn, winter, spring. (54-55-56)

304-305-306. **COUNTERPOINT.** The first two quarters are devoted to a study of sixteenth century polyphony as exemplified in the works of Palestrina. The last quarter is devoted to a study of eighteenth century polyphony, especially fugal construction, as exemplified in the works of Bach. Prerequisite: 204-205-206. Two credits; autumn, winter, spring. (104-105-106)

404-405-406. **ANALYTICAL TECHNIQUES.** A course in the technique of contrapuntal, harmonic, and formal analysis from early polyphony to twentieth century styles. Prerequisite: 204-205-206. Two credits; autumn, winter, spring. (154-155-156)

407-408-409. **ORCHESTRATION.** A study of musical instruments and the art of arranging various compositions for full band or orchestra. Prerequisite: 304-305-306. Two credits; autumn, winter, spring. (157-158-159)



## **MUSIC**

**Many are the avenues through which student talent finds expression in Music. This is a Brass Ensemble, one of the many groups performing on the campus, in churches and halls of the Northwest.**

411, 412, 413. **COMPOSITION.** A study of the art of composing in the smaller forms for piano, voice, and other instruments. Contemporary practices as well as traditional will be studied. Prerequisite: 304-305-306 or 404-405-406. Two credits; autumn, winter, spring. (161, 162, 163)

## HISTORY AND LITERATURE

201, 202, 203. **INTRODUCTION TO MUSIC.** An introduction to the understanding and enjoyment of music. Emphasis is placed on the art of listening by a study of the following: the media of musical performance, the psychological and aesthetic aspects of music and its elements, the forms, styles, textures, and history of music literature. This course does not presuppose a technical knowledge of music. Credit is not allowed toward a major. Fall quarter is prerequisite to winter quarter and winter quarter is in turn prerequisite to spring quarter. Two credits; autumn, winter, spring. (51, 52, 53)

307, 308, 309. **PIANO LITERATURE.** A comprehensive survey of the literature of the piano from its historical development to its practical application for teaching and performance. The course is open to upper division piano students only. Required of all piano majors. One credit; autumn, winter, spring. (107-108-109)

\*321-322-323. **ORGAN SEMINAR.** A comprehensive survey of the literature of the organ from its historical development to its practical application for teaching and performance. The course is open to upper division organ students only. Required of all organ majors. One credit; autumn, winter, spring. (111-112-113)

\*341, 342, 343. **HISTORY AND LITERATURE OF MUSIC TO 1750.** A study of Western music from pre-Christian times to 1750, with emphasis on the evolution of forms, styles, and media. Lectures will be supplemented with reading, performance, and listening to the music of the period under consideration. For music majors and minors only. Two credits; autumn, winter, spring. (121, 122, 123)

441, 442, 443. **HISTORY AND LITERATURE OF MUSIC SINCE 1750.** A study of Western music from 1750 to the present, with emphasis on the evolution of forms, styles, and media. Lectures will be supplemented with reading, performance and listening to the music of the period under consideration. For music majors and minors only. Two credits; autumn, winter, spring. (171, 172, 173)

481, 482, 483. **SELECTED TOPICS IN MUSIC.** Directed independent study on selected advanced topics. All study is done under the supervision of the instructor and elected only after consultation with the chairman of the department. One to three credits; maximum, three credits; autumn, winter, spring. (191, 192, 193)

## MUSIC EDUCATION

207. **PIANO METHODS.** A class conducted as an introduction to the teaching of piano including the methods of teaching keyboard and pedal technique, sight reading, interpretation, repertoire, etc. Three credits; autumn. (57)

\*Not offered the current year.

**223. MUSIC IN THE ELEMENTARY SCHOOL.** The organization and presentation of the following phases of music will be studied: rote singing, note singing, part singing, song repertoire, child voice, rhythm band, notation, music history and appreciation. Prerequisite: 100 or its equivalent. Three credits; spring. (63)

**277, 278, 279. BRASS METHODS.** Private instruction in brass instruments conducted as an introduction to the teaching of brass instruments and as demonstrations of class teaching of these instruments. The instruments to be taught include **Cornet, French Horn, Trombone, Baritone, and Tuba.** One to four credits; autumn, winter, spring. (87, 88, 89)

**281, 282, 283. WOODWIND METHODS.** Private instruction in the teaching of such woodwinds as **Clarinet, Oboe, Flute, and Bassoon** with demonstrations of the class teaching of these instruments. One to four credits; autumn, winter, spring. (91, 92, 93)

**284, 285, 286. STRING METHODS.** Private instruction in the playing of **Violin, Viola, Cello, and Bass**, as an introduction to the teaching of these instruments and as a demonstration of class teaching. One to four credits; autumn, winter, spring. (94, 95, 96)

**287, 288, 289. PERCUSSION METHODS.** Private instruction in teaching and instruction in the various percussion instruments. One credit; autumn, winter, spring. (97, 98, 99)

**324. INSTRUMENTAL PEDAGOGY.** An intensive study of the problems of teaching instrumental music on the elementary and secondary levels. Areas for special study include playing techniques, literature and materials for woodwind, brass and percussion instruments, organization and conducting of instrumental ensembles. Open to teachers only. Two credits; summer only. (114)

**381. VOICE METHODS.** A class conducted as an introduction to the teaching of voice, and will include a study of breathing, tone, diction, interpretation, and repertoire. Three credits; autumn. (141)

**472. METHODS OF TEACHING MUSIC IN THE SECONDARY SCHOOL.** A study of the problems in teaching music on the secondary level, including basic philosophies, content, practical methods of teaching, course outlines and practice teaching. Observation, demonstration and class presentation are required of the students as a part of this course. Three credits; winter. (197)

## CONDUCTING

**\*387-388-389. CONDUCTING.** A course specifically designed to lay the foundation for the development of the skill and the art of conducting musical ensembles of all kinds. Two credits; autumn, winter, spring. (147-148-149)

## CHURCH MUSIC

**208-209. MINISTRY OF MUSIC.** A study of the purpose and use of music in the various religious services. Attention is given to the aesthetics of the church service, study of the church hymnal and evangelistic music. Two credits; winter, spring. (58-59)

\*Not offered the current year.

## VOCAL AND INSTRUMENTAL ENSEMBLES

241-242-243. **CHORALE.** Designed for those whose major interest is in voice. Membership by invitation only with selection based upon talent and musicianship with preference shown those studying in the vocal department. Repertoire includes all types and periods of music both sacred and secular. Concert appearances, regularly scheduled church service appointments and quarterly field tours. One credit; autumn, winter, spring. (71-72-73)

244-245-246. **A CAPPELLA CHOIR.** The College A Cappella Choir is a highly selective ensemble, balanced for four and eight-part singing. Representative works of the great masters of choral composition are studied, memorized and performed. In addition to public programs and serving as choir for the College church, the choir goes on tour each spring giving programs in our larger churches and academies in the Union. Membership in the choir depends upon strict compliance with the rules and standards of the organization. One credit; autumn, winter, spring. (74-75-76)

247-248-249. **CONCERT BAND.** A select organization which serves the College by performing numerous concerts each year both on and off campus. The repertoire encompasses music of a wide range of styles and periods and includes both original band works as well as appropriate transcriptions. Members are selected on the basis of talent, musicianship, technical development and the need for a balanced instrumentation. Auditions are held during registration. A more select band called the Wind Ensemble will be organized as a part of the Concert Band. One credit; autumn, winter, spring. (77-78-79)

251-252-253. **SYMPHONY ORCHESTRA.** The orchestral repertoire is designed to familiarize the members with the best symphonic literature. Each quarter the organization learns a new symphony in addition to the many lighter overtures and classic excerpts. The College symphony orchestra accompanies concerts performed by various members of the music faculty and students as well as choral organizations. One credit; autumn, winter, spring. (81-82-83)

254, 255, 256. **ENSEMBLE.** Any vocal or instrumental duo, trio, quartet or larger group may study music peculiar to their ensemble under the direction of one of the music department staff. Piano and organ majors may elect up to six credits of ensemble in lieu of belonging to one of the larger College organizations. One credit; autumn, winter, spring. (84-85-86)

**Note:** No credit is granted for any music organization except on the satisfactory completion of the spring quarter.

## APPLIED MUSIC

One to four credits of applied music may be earned each quarter. One credit of applied music presupposes fifty hours of practice per quarter; two credits, one hundred hours. Music majors are required to take a minimum of two lessons a week. One hundred forty hours of practice are required per quarter for three credits; and one hundred eighty hours, for four credits.

Music majors are required to take lessons on their chosen instrument each quarter in residence regardless of the amount of credit accumulated.

Not more than nine credits in applied music (including three credits

of ensemble) may be earned toward graduation without an equal number of hours in theory.

Transfer students majoring in music must take a minimum of six hours in applied music at Walla Walla College.

**Cognate Requirements in Piano:** Students not majoring in piano or organ are required to have two successful years in the study of piano or pass an examination no later than the junior year which will be based on the following minimum requirements:

**Technique:** Major and harmonic minor scales, one, two, three, and four notes to a beat; major, minor, diminished, and augmented triads; and broken arpeggios.

**Repertoire:** Easier classics of Bach, Clementi, Mozart, and Haydn; compositions by nineteenth and twentieth century composers; and hymns.

**Sight Reading:** Second-grade material.

**Accompanying:** An easy solo.

**Harmonization:** Ability to harmonize a simple melody.

107, 108, 109. **APPLIED MUSIC.** Beginning. (7, 8, 9)

127, 128, 129. **APPLIED MUSIC.** Intermediate. (17, 18, 19)

227, 228, 229. **APPLIED MUSIC.** Upper intermediate. (67, 68, 69)

327, 328, 329. **APPLIED MUSIC.** Lower advanced. (117, 118, 119)

427, 428, 429. **APPLIED MUSIC.** Advanced. (167, 168, 169)

480. **SENIOR RECITAL.** Two credits maximum; autumn, winter or spring. (199)

## NON-DEPARTMENTAL

10. **DEVELOPMENTAL READING.** This course is designed to help college students develop speed and comprehension in reading. The latest reading techniques are taught and some of the best equipment is available for classroom use. It is a highly recommended course, especially for students whose reading habits are poor. Proficiency in reading means improved study skills. No credit; autumn, winter, or spring.

110. **ARITHMETIC FOR COLLEGE STUDENTS.** The course should be of value to all students who seek a proficiency in the use of arithmetical techniques. Three credits; autumn, winter, or spring. (11, 12 or 13)

221-222-223. **LIBRARY METHODS.** Introduction in the use of books and periodicals, the classification and cataloging of books, the principles of school library administration, and the history of libraries. Practice work required. Three credits; autumn, winter, spring. (41-42-43)

## NURSING

For complete information concerning the School of Nursing and course descriptions, see pages 131 to 135.

# PHYSICS

MR. BARNETT, MR. BROWN, MR. WAGNER

The department offers a major in physics and in engineering physics. The physics major who plans on a career in medicine will choose the Bachelor of Science degree. The physics major who is preparing for teaching will normally choose the Bachelor of Arts degree. The Bachelor of Science degree with an engineering physics major is recommended for those planning a career in scientific research or engineering research and development.

## PHYSICS MAJOR—REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

Elementary Physics	181, 182, 183, 184, 185, 186, or 201, 202, 203, 204, 205, 206	12
Electricity and Magnetism	301, 302, and	
Electrical Measurements	304, 305	
or		
Electric and Magnetic		
Circuit Analysis	EE 224-225-226	10-12
Thermodynamics	303	5
Optics	401, 404	6
Atomic Physics	402, 405	6
Nuclear Physics	403, 406	6
		45-47

### Required Cognates:

Chemistry	141-142-143
Industrial Education	241-242-243
Mathematics	181, 182, 183, 184

## PHYSICS MAJOR—REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE:

Candidates for this degree must complete a total of 90 credits in science and mathematics. The basic requirements are the same as those listed for the Bachelor of Arts degree.

## ENGINEERING PHYSICS MAJOR—REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE:

Introductory Physics	201, 202, 203, 204, 205, 206	12
Electricity and Magnetism	301, 302	8
Electrical Measurements	304, 305	2
Thermodynamics	303	5
Electronics	321, 322, 323	9
Electronics Laboratory	324, 325, 326	3
Optics	401, 404	6
Atomic Physics	402, 405	6
Nuclear Physics	403, 406	6
Theoretical Mechanics	421, 422, 423	9
		66

**Required Cognates:**

Chemistry 141-142-143  
Industrial Education 241-242-243  
Mathematics 321, 322, 324, 325  
Mechanical Engineering 101-102-103  
Speech 101-102 or 105-106

Candidates for this degree must meet all basic graduation requirements with the exception of Language, Literature, and Psychology.

**MINOR REQUIREMENTS:**

A minimum of 27 credits.

**TEACHING MAJOR AND MINOR:**

The teaching major of 45 credits and the teaching minor of 25 credits must be taken together with the required education courses and cognates for state teacher certification. The courses required in this department are:

**Major:**

The same as above for the regular major. It is required, however, that a minor of 25 credits in mathematics or chemistry accompanies a teaching major in physics. The teaching major does not require Industrial Education 241-242-243.

**Minor:**

Twenty-five credits chosen in counsel with the chairman of the department.

## **COURSES**

**181, 182, 183. GENERAL PHYSICS.** An introductory course in mechanics, heat, sound, light, electricity, atomic and nuclear physics. Emphasis is placed on the contribution of physics to modern thought and experience. Prerequisite: Mathematics 110 or a satisfactory score on the mathematics placement test. Physics 181 prerequisite for 182 or 183. Corequisite: 184, 185, 186. Three credits; autumn, winter, spring. (41, 42, 43)

**184, 185, 186. GENERAL PHYSICS LABORATORY.** Laboratory work integrated with 181, 182, 183. One credit; autumn, winter, spring. (41A, 42A, 43A)

**201, 202, 203. INTRODUCTORY PHYSICS.** An introductory course in mechanics, heat, wave motion, sound, light, and electricity designed to give the science and the engineering major a preparation for his future work. Basic mathematical principles are emphasized. Course 201 prerequisite for 202 or 203. Prerequisite: Mathematics 181. Corequisite: 204, 205, 206; Mathematics 182, 183, 184. Three credits; autumn, winter, spring. (51, 52, 53)

**204, 205, 206. INTRODUCTORY PHYSICS LABORATORY.** Laboratory work accompanying 201, 202, 203. One credit; autumn, winter, spring. (51A, 52A, 53A)

Physics 181, 182, 183 or 201, 202, 203 prerequisite for all courses numbered 300 or above; Mathematics 181, 182, 183, 184 prerequisite for all courses numbered 300 or above except 341, 342.

**301, 302. ELECTRICITY AND MAGNETISM.** Electric and magnetic field theory, direct and alternating current circuit analysis, electric and magnetic properties of matter. Four credits; autumn, winter. (101, 102)

**304, 305. ELECTRICAL MEASUREMENTS.** Laboratory work accompanying 301, 302 to familiarize the student with the apparatus and techniques for the basic direct and alternating current measurements. One credit; autumn, winter. (101A, 102A)

**313. THERMODYNAMICS.** Basic principles of temperature and heat measurement, laws of thermodynamics, behavior of ideal gases, change of state, thermodynamic properties of matter. Five credits; spring. (103)

**321, 322, 323. ELECTRONICS.** Physical principles of solid state, gaseous, and vacuum devices for controlling electric current; fundamentals of rectifier, amplifier and oscillator circuits. Corequisite: 301, 302, 304, 305 or prerequisite: Electrical Engineering 224-225-226. Three credits; autumn, winter, spring. (111, 112, 113)

**324, 325, 326. ELECTRONICS LABORATORY.** Laboratory work accompanying 321, 322, 323. One credit; autumn, winter, spring. (111A, 112A, 113A)

**341, 342. RADIOISOTOPE RESEARCH TECHNIQUES.** Laboratory work accompanied by lectures appropriate to the techniques studied in the laboratory: radiation detection, instrumentation, radiological safety, interaction of radiation with matter, ionization chambers, proportional counters, Geiger counters, scintillation counters, spectrometers, monitoring and survey instruments, activation analysis, selected biological and chemical studies. Prerequisite: Chemistry 141-142-143. Two credits; autumn, winter. (121, 122)

**401. OPTICS.** Reflection, refraction, dispersion, diffraction, interference, polarization, electromagnetic and quantum theories of radiation. Corequisite: 404. Four credits; autumn. (151)

**402. ATOMIC PHYSICS.** Experimental and theoretical foundations of modern atomic physics: special relativity, elementary quantum mechanics, atomic structure and spectra. Corequisite: 405. Four credits; winter. (152)

**403. NUCLEAR PHYSICS.** Nuclear structure, characteristics of alpha, beta, and gamma radiation, radioactivity, nuclear reactions, uses of radioisotopes, nuclear energy. Four credits; spring. (153)

**404. OPTICS LABORATORY.** Laboratory work accompanying 401, designed to illustrate the fundamental phenomena of geometrical and physical optics. Two credits; autumn. (151A)

**405. ATOMIC PHYSICS LABORATORY.** Laboratory work accompanying 404. Classical and modern experiments in atomic physics. Two credits; winter. (152A)

**406. NUCLEAR PHYSICS LABORATORY.** Experimental work on the statistics of nuclear radiation measurement, radioactive half-lives, intensity of radioactive sources, characteristics of alpha, beta, and gamma radiation, neutron activation. Two credits; spring. (153A)

**421, 422, 423. THEORETICAL MECHANICS.** Mathematical treatment of the statics and dynamics of particles, fluids, and rigid bodies with emphasis on harmonic, orbital and wave motion. Three credits; autumn, winter, spring. (161, 162, 163)

**477, 478, 479. SPECIAL PROBLEMS IN PHYSICS.** Directed, independent study in an approved area. The student will be required to read widely on an assigned subject, follow regular research methods and present a paper showing competence in and extent of his study. Open only to majors and minors. Permission from the chairman of the department required. One to three credits any quarter. Maximum, three credits. Autumn, winter, spring. (191, 192, 193)

## RELIGION

For complete information concerning the School of Theology, major and minor requirements, and course descriptions, see pages 127-130.

# SECRETARIAL SCIENCE

MISS RITTENHOUSE, MISS KONNERTH, MRS. WEAVER

The degree program aims to integrate vocational preparation on the collegiate level with a broad cultural education. This program prepares students for professional secretaryship. The department also seeks to equip students with knowledge and skills necessary for stenographers and general office workers.

## MAJOR REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE:

Typewriting	121-122, 123	2-6
Shorthand Theory	141-142-143	5-15
Records Management	182	2
Secretarial Procedures*	207-208	8
Advanced Typewriting	221, 222, 223	6
Office Machines	230	1
Office Machines	263	2
Advanced Shorthand and Transcription	287-288-289	9
Business Communications	361	3
Advanced Secretarial Procedures	409	3
Shorthand Reporting	427-428	6
Denominational Reporting or Medical Reporting	429	
Problems in Secretarial Science	449	3
Secretarial Science Seminar	480	2
Upper division electives	492	1
		2
		55-68

\*1964 seniors omit 207-208 and register for 407-408.

The number of credits required in courses 121-122, 123 depends upon the amount of previous work completed in secondary schools. The following courses are also required: Business and Economics 131-132; 261-262.

Students preparing for medical secretarial work should complete the following courses before taking Secretarial Science 449.

General Biology	101, 102, 103	12
Microbiology	107	5
Anatomy, Physiology and Health	202-203	10
Parasitology	448	5

## MINOR REQUIREMENTS:

Secretarial Procedures*	207-208	8
Advanced Typewriting	221, 222	4
Office Machines	263	2
Adv. Shorthand & Transcription	287-288-289	9

Adv. Secretarial Procedures	409	3
Methods of Teaching Typewriting	470 Typ.	3
		—

\*1964 seniors omit 207-208 and register for 407-408.

#### TEACHING MAJOR AND MINOR:

The teaching major of 45 credits and the teaching minor of 25 credits must be taken together with the required education courses and cognates for state teacher certification. The courses required in this department are:

##### Major:

Intermediate Typewriting	123	2
Secretarial Procedures*	207-208	8
Advanced Typewriting	221, 222, 223	6
Office Machines	263	2
Adv. Shorthand & Transcription	287-288-289	9
Business Communications	361	3
Adv. Secretarial Procedures	409	3
Methods of Teaching Shorthand	470 Sh.	3
Methods of Teaching Typewriting	470 Typ.	3
Secretarial Problems	480	1-2
Secretarial Science Seminar	492	1
Electives, upper division (Counsel with department chairman.)		6

\*1964 seniors omit 207-208 and register for 407-408.

##### Required Cognate:

Principles of Accounting	Bus. 131-132	6
<b>Minor:</b>		
Secretarial Procedures	207-208	8
Advanced Typewriting	221, 222	4
Adv. Shorthand & Transcription	287-288-289	9
Methods of Teaching Typewriting	470 Typ.	3
Electives		1

## COURSES

121-122. **BEGINNING TYPEWRITING.** An introductory course with emphasis on basic theory and skills for personal and vocational use. Two credits; autumn, winter. (11-12)

123. **INTERMEDIATE TYPEWRITING.** A continuation of courses 121-122. Prerequisite: 121-122 or equivalent. Two credits; spring. (13)

127. **PERSONAL TYPEWRITING.** A course emphasizing the techniques of touch typewriting as applied to business and personal use. Does not apply on a major or minor. Two credits; autumn. (18)

141-142-143. **SHORTHAND THEORY.** A course covering Gregg Shorthand principles with emphasis on correct writing and transcribing of shorthand notes. Corequisite: 121-122, 123 or equivalent. Five credits; autumn, winter, spring. (21-22-23)

182. **RECORDS MANAGEMENT.** A course in the theory and practice of the modern systems of filing. Two credits; winter. (42)

**207-208. SECRETARIAL PROCEDURES.** A preparation for the activities and procedures common to most stenographic jobs, including business arithmetic, business English, business meetings and reports. Four credits; autumn, winter.

**210. SWITCHBOARD.** Instruction in the organization and operation of a PBX system. Thirty hours switchboard practice with special instruction in the development of a pleasing telephone personality. One credit; winter or spring. (55 or 56)

**221, 222, 223. ADVANCED TYPEWRITING.** A continuation of courses 121-122, 123 with emphasis on increase of speed, accuracy, and skill in the production of business papers. Prerequisite: 121-122, 123 or equivalent. Course 221 prerequisite to 222, and 222 prerequisite to 223. Two credits; autumn, winter, spring. (61, 62, 63)

**230. OFFICE MACHINES.** Instruction in the use of computing and adding machines. One credit; autumn or winter. (81 or 82)

**263. OFFICE MACHINES.** Instruction and practice in the operation of voicescription and duplicating machines. Prerequisite: 121-122, 123. Two credits; spring. (43)

**287-288-289. ADVANCED SHORTHAND AND TRANSCRIPTION.** A course planned to review the principles of Gregg Shorthand and to build speed in taking and transcribing business dictation. Emphasis on and extensive practice in the production of mailable transcripts. Prerequisite: 121-122, 123 and 141-142-143 or equivalent. Three credits; autumn, winter, spring. (97-98-99)

**310. ADVANCED OFFICE MACHINES.** A laboratory course for students who desire to develop vocational proficiency in the operation of a specific office machine. Prerequisite: 230, 263. One credit; autumn, winter, or spring. (144, 145 or 146)

**361. BUSINESS COMMUNICATIONS.** A study of the principles basic to effective communication with application to specific problems related to business. Three credits; autumn. (131)

**407-408, 409. ADVANCED SECRETARIAL PROCEDURES.** A study of the duties and problems of the secretary in business and the professions. Includes the study of personality and office relations. Prerequisite: 121-122, 123; 141-142-143; 182; 263. Three credits; autumn, winter, spring. (157-158-159)

**427-428. SHORTHAND REPORTING.** A course designed to build skill in reporting and transcribing congressional and other technical material at higher speeds. Prerequisite: 221, 222, 223 and 287-288-289 or equivalent. Three credits; autumn, winter. (167-168)

**429. DENOMINATIONAL REPORTING.** A study of the work of the denominational secretary, specialized vocabulary, and reporting procedures. Prerequisite: 141-142-143 and 287-288-289 or equivalent. Three credits; spring. (169)

**449. MEDICAL REPORTING.** A study of the duties of the medical secretary and the development of a basic medical vocabulary. Prerequisite: 141-142-143 and 287-288-289 or equivalent and Biology 202-203. Three credits; spring. (179)

471Typ. **METHODS OF TEACHING TYPEWRITING.** A survey of the objectives, methods, and techniques of teaching typewriting in the secondary school. Observation demonstration, and class presentation are required of the students as a part of this course. Three credits; autumn. (197 Typ.)

**471Sh. METHODS OF TEACHING SHORTHAND.** Consideration of materials and methods in the teaching of shorthand in the secondary school. Observation, demonstration, and class presentation are required of the student as a part of this course. Three credits: autumn (197Sh).

**480. PROBLEMS IN SECRETARIAL SCIENCE.** A course for advanced Secretarial Science students to give opportunity for supervised work experience and/or individual study of a problem in Secretarial Science. One or two credits; autumn, winter, or spring. (181, 182, or 183)

**492. SECRETARIAL SCIENCE SEMINAR.** A course for senior Secretarial Science students for research, special problems, analysis of new trends in the field, and study of the major areas in Secretarial Science. One credit; winter. (186)

# SPEECH

MR. PENNER, MR. BALHARIE, MR. DICKINSON, MRS. RIGBY

The objective of the department is to provide training in the speech arts that will enable students to communicate ideas effectively in a democratic society and to increase personal competence in the chosen career.

## MINOR REQUIREMENTS:

A minimum of 27 credits including courses 101-102 or 105-106 and 9 upper division credits.

## COURSES

101-102 or 105-106. **ESSENTIALS OF SPEECH.** An introduction to the procedure of public speaking with emphasis on the acquirement of ease before an audience, a conversational attitude, and reasonable facility in pronunciation, articulation, and voice production. Two credits; autumn, winter; or winter, spring. (1-2 or 5-6)

201. **INTRODUCTION TO SPEECH CORRECTION.** A first course in the study of types and nature of speech defects frequently found in pre-school ages and in the classroom. Methods and techniques of therapy. Three credits; autumn.

203. **VOICE AND DICTION.** To aid in understanding and improving the speaking voice, with emphasis on the function of the speech mechanism. Instruction in the aspects of pitch, rate, quality, and volume as connected with the emotional symbols of oral expression. Phonetic approach to the study of English speech sounds. Two credits; spring. (53)

207. **GROUP DISCUSSION.** Participation in various types of group discussions, and theory and practice of parliamentary procedure. Two credits; autumn. (57)

210. **ART OF INTERPRETATION.** A course in reading from the printed page with fluency and effectiveness, especially from the Scriptures. A study of the various types of interpretative literature with a view toward its understanding for the purpose of public presentation. Two credits; autumn or spring. (54 or 56)

223. **ARGUMENTATION AND DEBATE.** Theory and practice of debating. Evidence and forms of reasoning; logical analysis and organization of argument. Consideration of methods in critical thinking. Two credits; spring. (63)

322. **RADIO SPEECH.** The theory and practice of microphone technique with special emphasis on diction and voice quality. Prerequisite: 101-102 or 105-106, or 210. Three credits; autumn. (161)

323. **ADVANCED PUBLIC ADDRESS.** A course stressing the practical application of speech to the student's major field of interest. It includes the study of speeches for social and business occasions with practice in the classroom. Prerequisite: 101-102 or 105-106. Two credits; spring. (113)

381, 382. **PULPIT ADDRESS.** Preparation and delivery of sermons and other types of public speeches. Adequate opportunity for practice is provided by the laboratory facilities of the department and through the numerous speaking appointments. Three credits; autumn, winter. (141, 142)

**422. SPEECH COMPOSITION AND ANALYSIS.** A comprehensive treatment of speech organization, content, and delivery. Analysis of great American speeches. Prerequisite: 101-102 or 105-106 or consent of the instructor. Three credits; winter. (112)

**443. PERSUASIVE SPEAKING.** The study of motivation and human behavior as applied by the public speaker in the process of persuasion. The analysis of persuasive speeches for emotional, ethical, and logical proof. Practice in composing and delivering speeches to stimulate and convince. Prerequisite: 101-102 or 105-106. Three credits: spring. (173)

477, 478, 479. **SPECIAL PROBLEMS IN SPEECH.** Directed, independent study in an approved area. The student will be required to read widely on an assigned subject, follow regular research methods, and present a paper showing competence in and extent of his study. Open only to minors. Permission from the chairman of the department required. One to three credits any quarter. Maximum, three credits. Autumn, winter, spring. (191, 192, 193)

## SCHOOL OF THEOLOGY

MR. BALHARRIE, MR. ALCOCK, MR. BARNES, MR. GROVE, MR. HEUBACH,  
MR. LITKE, MR. LUDGATE, MR. RUSSELL, MR. STOEHR

The principal purposes of the School of Theology are to provide undergraduate education for students seeking to enter the ministry and to offer courses in religion as desired by students in various other curricula of the College.

Selection of prospective candidates for the ministry is made on the basis of scholarship, spiritual qualities, social sympathies and skills, and cultural refinement. Ministerial students are admitted to upper division standing in the School of Theology only upon approval of the theology faculty and must meet Seminary entrance requirements by completing a theology major. An additional year of graduate study at the Theological Seminary of Andrews University is a prerequisite of the ministerial internship. A grade-point average of 2.5 is required for regular admission to the Seminary; therefore, in order to graduate with the B.A. degree with a major in theology, a student must have a grade-point average of 2.5. If at the beginning of his senior year a candidate fails to meet this standard, he will register as a Religion major.

All Theology and Religion majors must successfully complete a senior comprehensive examination which will cover broad areas of Biblical and religious knowledge. The student is advised, therefore, to select a variety of courses and thus become familiar with the entire field. Those planning to attend the Seminary at Andrews University should make sure that they obtain the necessary undergraduate subjects required for entrance. It is highly recommended that all Theology and Religion majors elect as many courses in education as possible towards teacher certification. Those wishing to become Bible instructors may select either a Theology or a Religion major.

### **THEOLOGY MAJOR—REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:**

Theology I	141, 142, 143	9
Theology II	221, 222, 223	15
Seminar in Religion	491, 492, 493	3
Electives (Counsel with department chairman.)	27	
		—
		54

#### **Required Cognates:**

Biblical Languages	101-102-103; 221, 222, 223	24
History	101, 102, 103; 201, 202 or 203 and electives	12 9
Political or Social Science		3
Speech	101-102 or 105-106, 381, 382 and electives	10 3
Biological Science	407	3

### **RELIGION MAJOR—REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:**

Seminar in Religion (3 credits) and 51 credits of electives chosen in counsel with the chairman of the department.

## **MINOR REQUIREMENTS:**

30 credits in Religion, including 9 upper division.

## **COURSES**

101, 102, 103. **BIBLE SURVEY.** An introductory course designed to provide the tools necessary for an understanding of the Bible. Portions of both the Old and New Testaments are studied in order that the student may gain insight into the major divisions of the Scripture story. Two credits; autumn, winter, spring. (1, 2, 3)

104, 105, 106. **LIFE AND TEACHINGS OF JESUS.** A study of the life of Christ, His teachings, His methods, and the principles of His kingdom as they apply to life in the world today. Two credits; autumn, winter, spring. (4, 5, 6)

141, 142, 143. **THEOLOGY I.** An introductory course which inductively leads the student into a study of the God-man, the nature of His kingdom, and the teachings of Christ concerning Himself, His law, and the way of salvation. The concepts of Matthew and John are studied so that the theology of Christ is seen against the background of His earthly life. Intended for theology and religion majors. 141 prerequisite to 142 or 143. Three credits; autumn, winter, spring. (21, 22, 23)

201, 202, 203. **FUNDAMENTALS OF CHRISTIAN BELIEF.** An introductory course in the evidences and principles of Christianity, consisting of a study of the basic concepts of religious faith and practice, and a survey of the fundamental doctrines held by the Seventh-day Adventist denomination. Two credits; autumn, winter, spring. (51, 52, 53)

221, 222, 223. **THEOLOGY II.** This course consists of a thorough study of the basic teachings of the Bible. Students will be required to organize their own concepts of Bible doctrines and teach them to others, in groups and individually, in class and community. Lectures, discussion and seminar methods will be employed. Intended for theology and religion majors. Five credits; autumn, winter, spring. (61, 62, 63)

231, 232. **MINISTRY OF HEALING.** A study of the work of Christ as the great compassionate Healer based on the writings of Ellen G. White. The example of Jesus as a medical evangelist is studied with emphasis on the opportunities for spiritual ministry by the Christian nurse. Two credits; autumn, winter. (Taught on the Portland campus only.) (51, 52)

321. **EARLY CHRISTIAN CHURCH.** Significant trends and events in the development of Christianity from the time of Christ to Charlemagne, including a study of the Church in relation to the Roman Empire, its missionary expansion, the influence of the Church fathers, doctrinal and organizational modifications, the heretical sects, the councils, Christological controversies, and rise of the papacy. Three credits; autumn. (113)

322. **DANIEL.** An advanced course on the historical setting and significance of the book. The prophetic features of the book are studied in the light of both secular and church history to provide the student with a clearer insight into contemporary religious conditions. Prerequisite: 201, 202, 203. Three credits; winter. (111)

323. **THE REVELATION.** An advanced course on the historical setting and significance of the book. The prophetic features of the book are studied in the light of both secular and church history to provide the student with a clearer insight into contemporary religious conditions. Prerequisite: 201, 202, 203; 322. Three credits; spring. (112)



## **RELIGION**

Christianity is more than a guide: it gives meaning to the thoughts we think and the life we live. And students are invited to react to class instruction, for "no man thinks well when he thinks to himself only."

341, 342, 343. **SPIRIT OF PROPHECY AND DENOMINATIONAL HISTORY.** A careful review of the Gift of Prophecy in the remnant church. The bestowal of this gift in the beginning, after the fall of man, and its work during the centuries to the 1844 movement. The rise of the denomination in its connection with the prophetic movement of Revelation 10 and in its development during the last one hundred years is carefully studied. Two credits; autumn, winter, spring. (121, 122, 123)

364, 365, 366. **HEBREW PROPHETS.** A study of the major and minor prophets from the viewpoint that these things "were written for our admonition upon whom the ends of the world are come." Attention is given to the historical setting of the prophecies, with careful exegetical study of the text, emphasizing the fundamentals of the gospel as contained therein. Course 364 prerequisite to 365 or 366. Three credits; autumn, winter, spring. (134, 135, 136)

383. **CHURCH ADMINISTRATION.** Study of church organization, election and duties of church officers, church boards, business meetings and finances, with opportunity for observation and participation in these phases of church activity. Careful study is given to principles of Christian worship and the special services of the church. Three credits; spring. (143)

384. **DOCTRINE OF THE SANCTUARY.** A study of the Hebrew tabernacle and its services with special emphasis on its significance for the twentieth century. Three credits; autumn.

387. **INTERVIEWING AND SPIRITUAL COUNSELING.** A course to help the student bridge the gap which might exist between theoretical Christianity and practical Christianity in personal life and in the nurse-patient relationship. Methods of Christian conversation and counseling are presented to give the student confidence and understanding in the giving of total patient care, which includes spiritual therapy. Three credits; autumn, winter or spring. (Taught on the Portland campus.) (144)

402. **MODERN DENOMINATIONS.** This course deals with the cardinal teachings of a number of the prominent religions of the world. Comparisons are made of the teachings relating to God, salvation, sin, and the future. Three credits; winter. (Also taught on the Portland campus: two credits; summer and autumn.) (152)

403. **WORLD RELIGIONS.** A short study of the greater religions of mankind, such as Animism, Hinduism, Buddhism, Confucianism, Shintoism, Islam, and Christianity. Consideration is given to the historical setting out of which these religions arose, their founders, their basic teachings and rituals, their conceptions of God and man. Three credits; spring. (153)

421, 422, 423. **PHILOSOPHY OF RELIGION.** A study of the fundamental reasoning underlying the Christian religion in general and the beliefs of Seventh-day Adventists in particular. The Christian solutions to the basic problems of life are considered. Course 421 prerequisite to 422 and 432. Two credits; autumn, winter, spring. (161, 162, 163)

\*426. **ESCHATOLOGY.** A study of the final events of this earth's history as outlined in the great lines of Bible prophecy and the writings of Ellen G. White. Emphasis is placed upon the important issues in the great controversy between good and evil and the final establishment of God's everlasting kingdom upon the earth. Three credits; spring. (166)

\*Not offered the current year.

427, 428. **CHRISTIAN DYNAMICS.** An analytical study and practical application of the dynamics of Christian behavior. An advanced course designed to guide the student in understanding and experiencing the moving physical, mental, spiritual and social forces that produce constructive thought, healthy motivation and positive action in the religious life. One lecture, one discussion, one laboratory period each week. Prerequisite: 201, 202, 203. Two credits; autumn, winter. (167, 168)

429. **STUDIES IN CHRISTIAN DYNAMICS.** A survey of research methods combined with individual, independent study carried out under the direction of the instructor. A representative paper will be required in which the student must show competence in study and research on an independent basis. Registration by permission of the instructor. Prerequisite: 427, 428. Two credits; spring. (169)

441, 442, 443. **PERSONAL EVANGELISM.** A course designed for students desiring to learn methods of individual religious instruction, the techniques of meeting objections, and the art of securing decisions. The preparation and giving of Bible studies will be featured. Special attention given to junior and youth evangelism. Two credits; autumn, winter. (171-172) (Taught on the Portland campus spring.)

444, 445, 446. **BIBLICAL BACKGROUNDS.** An exploration of those archaeological, historical, and scientific studies of the present age which make the scriptural record more meaningful. Special emphasis is placed upon recent archaeological and manuscript discoveries that throw light upon the life and times of the Bible period. Two credits; autumn, winter, spring. (174, 175, 176)

447, 448. **PUBLIC EVANGELISM.** Advance study in the art of preaching with particular emphasis upon Bible exposition. Detailed attention will be given to the various phases of evangelistic work including advertising and the planning of public meetings. This course is definitely designed for young men who desire to make the gospel ministry their vocation. Admission to the class will be upon the recommendation of the professor. Prerequisite; Speech 381, 382. Two credits; autumn, winter. (177-178)

461, 462, 463. **FIELD EVANGELISM.** Experience in evangelistic techniques is obtained by giving Bible studies and/or holding meetings. One credit; autumn, winter, spring. (181, 182, 183)

464, 465, 466. **NEW TESTAMENT EPISTLES.** An exegetical study of the epistles of the New Testament, attention being given in each case to the time, circumstances, place of writing, and the purpose for which it was written. Two credits; autumn, winter, spring. (184, 185, 186)

477, 478, 479. **SPECIAL PROBLEMS IN RELIGION.** Directed, independent study in an approved area. The student will be required to read widely on an assigned subject, follow regular research methods, and present a paper showing competence in and extent of his study. Open only to majors and minors. Premission from the chairman of the department required. One to three credits any quarter. Maximum, three credits. Autumn, winter, spring. (191, 192, 193)

491, 492, 493. **SEMINAR IN RELIGION.** A review of principal areas in the field of religion with emphasis on central issues and certain problems involved. Assigned topics for discussion. One credit; autumn, winter spring. (194, 195, 196)

## SCHOOL OF NURSING

MISS LEAZER, MRS. BOECK, MRS. GIEBELHOUSE, MR. HANSON, MRS. HOLLAND, MISS LOGAN, MR. NICOLA, MRS. RITER, MISS RUDY, MRS. SCOTT, MRS. TRACY, MISS WILSON

The bachelor of science degree offered in the School of Nursing is parallel in nature to those offered in other departments of the college; approximately half of the courses for the degree are of the same group of liberal arts or basic courses required for all other degrees; the other half are professional relevant to nursing.

The aim is to provide an education broadening and cultural in nature and at the same time prepare the student for the beginning of professional nursing to people of all ages under varying circumstances. The contributing benefits of a college degree with an emphasis on humanities, science, mathematics, social science, and the Christian heritage, we believe, provide a basis for personal development, for depth in perspective of human needs, mature judgment, and increasing continued growth in professional competence and dedication.

The objectives of the School of Nursing are as follows:

To guide the student in a personal development which will produce a well-adjusted individual, capable of accepting the responsibility for, and direction of, her own life in full harmony with the philosophy of the school.

To provide opportunity for the student to secure basic knowledge and skills essential to meet nursing needs in illness, in the conservation of health, and in giving restorative service to the individual and to the family.

To motivate creative thinking and intellectual curiosity.

To develop a foundation for leadership in the field of nursing, and the basic foundation for graduate education.

To stimulate and nurture the desire to give selfless, kind, tolerant, and understanding service to mankind.

To encourage the student to develop a Christian philosophy of life as a basis for the solution of her own problems, and a basis for ministration to the patient.

To prepare Christian youth for missionary nursing in the health activities of the Seventh-day Adventist Church throughout the world.

## GENERAL INFORMATION

Two programs exist, one for the basic collegiate nursing student, and another for the registered nurse who did not follow a collegiate program in her preparation.

The School of Nursing is approved by the Collegiate Board of Review of the Department of Baccalaureate and Higher Degree Programs of the National League for Nursing, and by the Washington State Board of Professional Nursing. The Portland Sanitarium and Hospital is approved by the Joint Commission on Accreditation of Hospitals.

The nursing curriculum may be completed in thirteen and one-half quarters. Six quarters are spent on the College Place campus and seven and one-half quarters in the clinical division. Upon completion of the

curriculum the student is eligible to write State Board Examinations and will receive the Bachelor of Science degree with a major in nursing.

The Portland Sanitarium and Hospital serves as the principal clinical practice area for nursing students. This is a modern hospital with more than ten thousand patient admissions per year.

Students gain laboratory practice at the Portland Sanitarium and Hospital in the following areas: Medical-Surgical Nursing, Pediatric Nursing and Obstetrical Nursing.

Psychiatric Nursing is obtained at the Oregon State Hospital, Salem, Oregon. Public Health Nursing is studied at the University of Washington.

All students registered in the School of Nursing are subject to the general regulations of the college.

## ADMISSION TO CLINICAL DIVISION

Completion of the first four quarters' work in the Campus Division does not automatically admit the student to the Clinical Division. A committee representing the staff of both the College and the Clinical Divisions evaluates the aptitude and qualifications of each student and selects those students who may proceed to the Clinical Division.

## ADMISSION WITH ADVANCED STANDING

Upon completion of the courses required for entrance to the Clinical Division, students from other colleges may be admitted directly to the Clinical Division. Students wishing to do so are urged to plan carefully their college work with their college adviser and to communicate with the Dean, Walla Walla College School of Nursing, 6014 Southeast Yamhill, Portland 15, Oregon. Applicants seeking admission with advanced standing must have their applications approved by the Admissions Committee of the College.

## DEGREE REQUIREMENTS

The degree of Bachelor of Science is conferred by Walla Walla College upon satisfactory completion of the Collegiate Nursing Curriculum. Students must have achieved a cumulative grade-point average of 2.00 (C). For further information concerning degree requirements, consult pages 39 to 45 of this Bulletin.

## COLLEGE CAMPUS

	Autumn		Winter
Fund. Chr. Belief	2	Fund. Chr. Belief	2
Freshman Comp.	3	Freshman Comp.	3
Intro. Chemistry	3	Intro. Chemistry	3
General Psychology	3	Anat., Phys., & Health	5
Soc. & Prof. Ethics	2	Essentials of Speech	2
Intro. Sociology	3	Physical Education	$\frac{1}{2}$
Physical Education	$\frac{1}{2}$		
	<hr/>		<hr/>
	16 $\frac{1}{2}$		15 $\frac{1}{2}$
	Spring		Autumn
Fund. Chr. Belief	2	Human Nutrition	3
Freshman Comp.	3	Psychology	3
Intro. Chemistry	3	Human Growth & Develop.	3

Anat., Phys., & Health	5	Microbiology	5
Essentials of Speech	2	Family in Society	3
Physical Education	½		
	—		—
	15½		17

The programs of courses as offered quarter by quarter will be found in the 1963-64 Class Schedule of the College.

## DEGREE REQUIREMENTS FOR REGISTERED NURSES

For registered nurses who have not had the benefit of a collegiate program, the College offers a curriculum leading to a Bachelor of Science degree with a major in nursing.

The curriculum is intended to provide graduate nurses with the same background of general and professional education. It is planned to provide opportunities for the solution of patient problems and to develop deeper and broader understanding and abilities required in the practice of nursing.

### ADMISSION

The applicant should show evidence of having completed the following:

Walla Walla College entrance requirements

Graduation from an accredited school of nursing

Licensure to nurse in a state or country

Students planning to come to Walla Walla College should submit their credits for evaluation; these will be evaluated individually on the basis of examinations. The results of these examinations are used for guidance in planning the content of courses to meet the students' needs.

Graduate nurses who have completed pre-nursing in a liberal arts college and 27-36 months in a hospital school of nursing should plan to spend approximately five quarters at Walla Walla College. Nurses who hold hospital school diplomas instead of collegiate diplomas will be required to complete the courses listed in the first four quarters of the collegiate nursing program.

The student may be allowed a maximum of 65 credits toward the Bachelor of Science degree in nursing for a basic program from an approved hospital school of nursing that included psychiatric nursing theory and practice. These credits will be withheld until the student has satisfactorily completed 30 credits of work, 15 of which have been earned in residence at Walla Walla College, and has removed secondary school deficiencies and strengthened any area of clinical weakness. If possible, deficiencies should be removed before commencing the college program.

### SUMMARY OF REQUIREMENTS

1. College credit for all courses listed under first-year basic nursing curriculum.
2. Satisfactory scores in NLN achievement tests and other achievement tests in all clinical areas. Low scores will result in the student's auditing or repeating clinical areas. Deficiencies in any clinical area must be made up in regular, basic baccalaureate nursing classes.
3. Completion of all courses which are peculiar to the Walla Walla College School of Nursing curriculum.

4. One quarter clinical nursing on Portland campus.
5. One quarter public health nursing on University of Washington campus.
6. Sufficient electives to bring total college credit to 192 hours, including 60 upper division credits, required for graduation from Walla Walla College.

## NURSING

224. **INTRODUCTION TO NURSING.** Orientation to the profession, emphasizing present-day concepts of nursing, professional ethics, and preparation for modern nursing practice. Instruction is given in the care of patients hospitalized with various nursing problems, with emphasis on techniques commonly used in the care of all patients. Through discussion and demonstration in the classroom and laboratory, the student acquires understanding and skills in preparation for the clinical situation. Three credits; summer. (64)

261, 262, 263. **MEDICAL-SURGICAL NURSING I, II, III.** Study is given to the various medical-surgical conditions common to the adult with reference to the several anatomical systems of the body and a study of the nursing care specifically related to each condition. Scientific facts and principles which form the basis for procedures and care are considered. In addition, the course draws attention to the psychological, social, spiritual and public health aspects of illness, prevention, treatment, rehabilitation, disaster nursing, diet therapy, drug therapy, physical therapy, and operating room technique. Nine credits; autumn, winter, spring. (81, 82, 83)

264, 265, 266. **MEDICAL-SURGICAL NURSING LABORATORY I, II, III.** (Concurrent with Medical-Surgical Nursing I, II, III.) This course provides supervised practice in applying scientific principles to the care of the adult patient ill with common medical and surgical conditions. Emphasis is placed on the giving of nursing care according to individual needs of patients. Five credits; autumn, winter, spring. (84, 85, 86)

281. **OBSTETRICAL NURSING.** This is the study of normal pregnancy, labor, delivery and post partum periods as well as the study of complicated obstetrical problems. Includes study of the normal newborn and the newborn with health problems and disabilities. Five credits; autumn, winter or spring. (91)

282. **OBSTETRICAL NURSING LABORATORY.** (Concurrent with Obstetrical Nursing.) Experience and observation in application of principles of obstetrical nursing to the patient in the hospital maternity ward and in various community health agencies. Five credits; autumn, winter or spring. (92)

321. **INTRODUCTION TO PUBLIC HEALTH NURSING.** A study is made of present trends in public health and in the history and organization of public health agencies as well as the interrelation of federal, state, local and voluntary health agencies. It includes the introduction to the use of statistics and epidemiology. Three credits; autumn, winter or spring. (111)

342. **PEDIATRIC NURSING.** Study of all phases of growth and development, prevention and control of disabilities and diseases common to infants and children, with their treatment and follow-up care, including health promotion and accident prevention. Seven credits; autumn, winter or spring. (122)

**343. PEDIATRIC NURSING LABORATORY.** (Concurrent with Pediatric Nursing.) Correlated observation and practice in the care of well and ill children in the hospital, clinic, and community agencies. Five credits; autumn, winter or spring. (123)

**344. PSYCHIATRIC NURSING.** Normal personality development, community aspects of mental health, etiology, symptomatology, treatment, special therapy, and nursing care of the more common types of mental illness. Five credits; autumn, winter or spring. Oregon State Hospital, Salem, Oregon. (124)

**345. PSYCHIATRIC NURSING LABORATORY.** (Concurrent with Psychiatric Nursing.) Experience in the care of representative types of mental illness with conferences, clinics, and nursing care studies. Five credits; autumn, winter or spring. Oregon State Hospital, Salem, Oregon. (125)

**363. SENIOR NURSING LABORATORY.** Designed to provide the student with opportunities to give advanced nursing care and to strengthen concepts of nursing, including psychological, emotional and spiritual aspects. It provides the student practice in leadership skills as a team leader and assistant head nurse. Five credits; summer or autumn. (133)

**387. CURRENT HOSPITAL NURSING.** The students are acquainted with the effect on nursing of modern advancement in medical and social services with emphasis on the professional nurse's responsibility in complex nursing situations. Principles pertinent to the development, application, and evaluation of nursing are stressed. This course includes clinical experience in hospital situations. Five credits; summer or autumn.

**404. SEMINAR IN NURSING.** A seminar devoted to the critical analysis of nursing situations and problems for the purpose of identifying and solving nursing care problems. Three credits; summer or autumn. (154)

**424. LEADERSHIP IN NURSING.** The principles of leadership in nursing, including administration of a hospital unit, are considered. Three credits; summer or autumn. (164)

**444. PROFESSIONAL RELATIONSHIPS AND TRENDS.** A study of present-day trends in nursing and how they evolved. Study is given to professional organizations, patterns of nursing education, nursing legislation, opportunities in the field of nursing, and other problems in nursing practice. Three credits; summer or autumn. (174)

**481, 482, 483. ORIENTATION TO NURSING RESEARCH.** Students may select special research problems in the field of nursing and pursue these on an independent basis under the direction of the instructor. Part of this must be done in nursing situations. One to three credits. Maximum, three credits. Autumn, winter, spring. (191, 192, 193)





## **SENTINELS**

**As strong men on guard, these twin columns stand on a plateau near the south bank of the great Columbia River, guarding the very secrets of mother earth herself.**

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## FINANCIAL INFORMATION

**T**HE College operates on a cash basis and expects students to meet all financial obligations promptly. All students, including veterans, are required to make an advance deposit before registration as follows:

Dormitory Students

On or before September 1	\$ 50
Additional required upon registration	125
	<hr/>
Total	\$175

Village Students

Upon registration or before	\$100
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Clinical Division

Advance payment for uniforms, nurse's cape, textbooks, and miscellaneous school supplies.	\$200
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The advance deposit is held in reserve until the last month of the school year or until the student leaves school. Students are expected to pay the actual school charges at the close of each month. Clearance cards and registration booklets, issued when the advance deposit and satisfactory financial arrangements are made, must be presented at the proper places.

### GENERAL INFORMATION

Student statements are rendered at the close of each month and are due on the 10th and past due on the 20th day of the following month. When settlement is not made by the 20th, the student is automatically requested to review his account with the management. Due to unforeseen circumstances, changes in charges, labor plans, and general organization may be necessary during the year. Actions voted by the College Board, Faculty, or Finance Committee at any time shall have equal force with statements published in this bulletin.

Tuition and room rental charges for the quarter are made in three

equal installments. Students who register late are charged full tuition for the quarter in which credit is received.

**REMITTANCES.** Checks, drafts, and money orders should be made in favor of *Walla Walla College* and should be sent directly to the College Business Office. Inquiries concerning student financial matters should be directed to the Finance Counseling Office and those concerning the academic or instructional program should be directed to the Academic Dean of the College. No refunds, except room rental charges due to absences of more than two weeks caused by illness, are made.

**RELEASE OF TRANSCRIPT OR DEGREES.** By action of the Board of Trustees of the College, a degree or transcript of credit may not be released until the student's account is in balance.

**EXAMINATION PERMITS.** Examination permits are issued 15-20 days prior to quarter examinations. Students are required to have clearance cards five days before examinations are given. A \$1 penalty per day will be assessed for issuance of late permits. A student whose account is overdue may not be permitted to take the final quarter examinations.

## TUITION

All laboratory fees, all rentals (typewriter, piano and organ), are included in the tuition.

Credit Hours	Tuition per Quarter
1	\$ 19.80
2	39.90
3	60.00
4	79.80
5	99.90
6	120.00
7	139.80
8	159.90
9	180.00
10	199.50
11	219.00
12	240.00
13-16	255.00
Over 16, per credit	17.00

## CLINICAL DIVISION

Quarterly fee \$16.00

This charge which is made at the beginning of each quarter covers a general fee, a registration fee, student association dues, and the clinical division accident insurance.

Tuition per quarter 255.00  
Students entering the clinical division after July 1, 1963, will be charged tuition at the rate of \$255.00 per quarter for which they are enrolled in regular classwork. Basic nursing students who entered the clinical division before this date will continue on the thirty monthly installment tuition plan. The monthly installment rate for students continuing on this plan is \$72.00.

**AUDITING.** Half tuition is charged for auditing classes.

**TUTORING.** Triple tuition is charged for individual tutoring.

**APPLICATION FEE.** Students entering the College for the first time will enclose \$2 with their application blank. This fee, which is paid but once and which is not refundable, covers the cost of checking grades, securing recommendations, and the making of required records. Accounts with other schools must be settled before matriculation.

**GENERAL FEES.** All students registered for six quarter hours or more are charged \$10 per quarter for gymnasium, health service, library, lyceum, and registration. These students are also automatically members of the Associated Students of Walla Walla College and are charged a fee of \$6 per quarter. This fee covers the cost of *The Collegian*, *Mountain Ash*, *The Mask*, Student Association Center, and Association dues.

Students registered for less than six hours are charged \$6 per quarter for library, registration, and one *Collegian* subscription. These students are not considered members of the Student Association; and if a *Mountain Ash* is desired, arrangements should be made with the *Mountain Ash* office.

#### **SPECIAL FEES**

Entrance tests (at academies or on campus)	\$5.00
Late registration	5.00
Change of program	1.00
Special examination	3.00
Advanced standing credit by examination, per quarter credit	2.00
Transcript of grades	
First transcript	no charge
Each succeeding transcript	1.00
Degree, Bachelor's	7.50
Degree, in absentia, Bachelor's	17.50
Degree, Master's	25.00
Degree, in absentia, Master's	35.00
Developmental Reading	25.00
Band and orchestral instruments, per quarter	5.00
Classes having numerous or extended field trips will be given notice of special fees to cover expenses.	

**MUSIC FEES.** The following rates for private lessons per quarter are in addition to tuition charges and are not refundable after the first of any quarter, except for prolonged illness or withdrawal from the College. These charges will be posted on the second statement of each quarter. Music instructors will be available for a minimum of nine lessons per quarter.

#### Applied Music—Private Lessons

	Per Quarter
One lesson weekly (half-hour) . . . . .	\$29.00
Two lessons weekly (one hour) . . . . .	49.00
Student teachers: one lesson weekly (½ hr. credit)	22.00

#### Applied Music—Class Instruction

Class membership of four or more	\$13.00 each per quarter
Class membership of three . . . . .	16.00 each per quarter
Class membership of two . . . . .	19.00 each per quarter

Rentals (Students taking music without credit would pay the following rentals.)	
Practice room, 1-9 hours per week . . . . .	\$ 7.00
Practice room, 10 hours or more per week . . .	12.00
Practice room, individual hourly basis, per hour . . . . .	.50
Organ, 1-9 hours per week . . . . .	18.00
Organ, 10 hours or more per week . . . . .	30.00

## RESIDENCE HALL EXPENSES

Where there is dual occupancy the room rental charges for each student per quarter are as follows:

Conard Hall	\$84.00, 87.00, 90.00
Sittner Hall	84.00, 87.00, 90.00
West Hall	75.00
Clinical Division, Nurses Home	75.00

When rooms are available, single occupancy is permitted at an extra charge of \$30 per quarter. The above charges include heat, electric lights to a maximum of 200 watts, and plain laundering not to exceed \$1 per week. Dormitory students should not bring their own laundry bags, as special bags will be provided by the College. Name tapes are not required on clothing sent to the College Laundry.

**ROOM RESERVATIONS.** Each student residing in one of the College residence halls will be required to make a \$15 room deposit which will be refunded when the student permanently discontinues dormitory residence less any room charges turned in by the dean for delayed departure, uncleaned rooms, or room damage. This deposit will secure continuous room reservation on a year-by-year basis as long as the student desires dormitory residence.

A refund will be made until August 15 each year upon receipt of a written cancelation of room reservation, but no refund is made thereafter.

**BOARD.** The cafeteria plan is used in the College dining halls. The minimum charge for board per month is as follows:

Men	\$28.00
Women	25.00
Clinical Division	20.00

**AUTOMOBILE PARKING FEE.** Residence hall students bringing automobiles with them will be charged a fee of \$4 per quarter for parking privileges. Covered parking is available at a slight additional cost. The College does not carry insurance on the parking lot which will cover damage to the vehicle, or theft, or loss of any sort while parking in the lot. If such insurance is desired, comprehensive coverage can be secured by the owner at a more reasonable rate than can be provided by the College.

## STUDENT HEALTH CENTER

The clinical facilities and twelve beds of the Health Center are available for students requiring treatments or hospitalization. Prescriptions and other medicines are available at special prices. A reasonable charge is made for hospitalization in excess of three days per quarter. The three days allowed per quarter are not cumulative. In case of serious illness or surgery, the Walla Walla General Hospital provides complete service to students. Financial arrangements must be made directly with the hospital.

## BOOKS AND SCHOOL SUPPLIES

Textbooks, stationery, gym suits and equipment, and other materials needed for school work may be obtained at the College Store at reasonable prices. These items are to be paid for in cash at the time of purchase. Parents should send \$50 extra in addition to the down deposit with the student for such items. Credit at the College Store can be arranged by those whose accounts are satisfactorily maintained. Approval must be secured from the Finance Counseling Office. Those desiring this arrangement must have a letter of approval signed by the parent or sponsor.

## ACCIDENT INSURANCE

Student accident insurance is carried by the College under a blanket policy for all students. The cost of this insurance is determined each summer, but is usually in the vicinity of \$3.50 per quarter.

## SCHOLARSHIP PLAN

Students entering the colporteur work for the purpose of earning school expenses have the following plans available. The amounts in the last line are the delivery values, 50% of which the student must have as a cash credit with his Book and Bible House in order to receive credit at the College Business Office in the amount as indicated in the corresponding place in the first line. These scholarships are to be used for tuition, fees, board, room, and laundry.

Amount of Scholarship .....	\$550	\$650	\$750	\$850
Scholarship Award, 30 per cent .....	165	195	225	255
Amount for Student to Earn .....	385	455	525	595
Amount for Student to Deliver .....	770	910	1050	1190

Students wishing the colporteur scholarship benefits must arrange to have the full amount of their required credit forwarded to the College before the close of the first six weeks of school.

## STUDENT LABOR

Frequently, students who lack sufficient funds to defray college expenses are given employment in some department connected with the institution. Thus, many are assisted in their efforts to secure an education. The student should not, however, expect to earn his entire expenses. Students are expected to register for at least 10 credits each quarter and are, therefore, limited in the amount earned through labor. The College Board has found it necessary to establish certain regulations concerning student labor. Full details are available from the Finance Counseling Office.

The rate paid to students will be set each period by the business manager in counsel with the heads of the industrial departments, and will be based on ability, industry, and faithfulness of the student. No labor credit will be honored unless the work assignment is authorized in writing by the Finance Counseling Office.

The first two or three weeks at the beginning of each school year are reserved to assign dormitory students to their labor programs. Other students will then be considered for available work opportunities.

## MISCELLANEOUS

Students should bring their baggage checks to the College Business

Office. No charge is made for hauling baggage during the first week of each quarter.

## SCHOLARSHIP AND LOAN FUNDS

Certain individuals and organizations have made scholarship and loan funds available. These are primarily for assisting worthy students beyond the freshman year. For information see the Business Manager or the Finance Counseling Office. The funds are as follows: Alumni Association Student Loan Fund, Bertha Schneider Theology Student Loan Fund, Carrie Welch Student Fund, Grettner Student Loan Fund, Summer Class of 1953 Loan Fund, Worthy Student Loan Fund, and National Defense Student Loan Fund.

## BEQUESTS AND DONATIONS

Since it is highly important that the College Board should not be hampered by a lack of funds in its efforts to give the very best training to young people, we invite those whom God has blessed with means to remember the cause of Christian education. All bequests and donations should be made payable to Walla Walla College.

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# GRADUATES OF 1962

## BACHELOR OF ARTS

Beaulieu, Dale R.  
Blodgett, Judith Ann  
Boskind, Richard M.  
Bowen, James David  
Carlson, Eva Louise M.  
Casseday, Edward A.  
Courtney, Clara  
Eigenberg, Edwin M.  
Ellis, Kenneth B.  
Farnsworth, Keith Eugene  
Fedak, Marian Anne  
Fell, James Walter  
Gerber, Henry Siegfried  
Hamlin, Edwin Gene  
Haskell, John Albert  
Hasse, Larry J.  
Hays, Vada Marie  
Henderson, Robert Allen  
Hiebert, Daniel Wesley  
Hines, Connetta  
Hinger, Dione Kay  
Ingram, Wilbur Dean  
Johnson, Claire Forrester  
Jones, John Richard  
Kellogg, Barry Lynn  
Kelstrom, Cora H.  
Lewis, Delbert Ray  
Livingston, Donna Rae  
Loganbill, Dennis Dean  
Lopp, Robert John  
Lorenz, Kathryn L.  
Lowe, Marie  
Lucas, Linda Roberta  
McDaniel, Dick J.  
McDaniel, Wayne Alden  
McDow, Barbara Steinlicht  
Magboo, Leticia Mathay  
Merry, John Fremont  
Meske, Walter

Nelson, Lynette Norma  
Nightingale, Martha Elaine  
Praye, Clyde, L.  
Schultz, Harold E.  
Schwartz, Barbara Joan  
Scott, Ronna Rae  
Shenk, Paul H.  
Simorangkir, Anneke Gertrudia  
Snow, Jerry E.  
Tangtongtavy, Suchada  
Tataryn, Reuben B.  
Tetz, Emmett  
Wade, Gerald Howard  
Weber, Elizabeth Jane  
White, Robert Wendell

## BACHELOR OF MUSIC

Ellis, Joyce Anne  
Luke, Richard A.  
Winn, Hugh Perry

## BACHELOR OF SCIENCE

Altman, Barbara Kay  
Anderson, Lois Marie  
Ash, Larry Duane  
Baldwin, Norman Lewis  
Basaraba, Carol Faith  
Blake, Richard Earl  
Bowen, Nola Lillian  
Brown, Edward P.  
Brown, Ruth Frances  
Canaday, Larry Thomas  
Carter, N. Lyle  
Cheah, Bunny Sin Boo  
Clough, Sandra Maxine  
Creitz, Thaine Allison  
Crow, William A.  
Dasher, Joanne V.  
Davis, George Walter  
Deweese, Clifford Elmer

Kime, Betty Louise Griffin  
Kime, Zane Richard  
Kolomietz, Elsie Lou  
Konzelman, Lillian Lee  
Kopfer, Charlotte Edith  
Kostenko, Margaret Ellen  
Logan, Marie  
Looker, Jean E.  
Loop, Virginia Ann  
Lorenson, Edith Ruth  
Love, Sandra Jayne  
Lowrie, Lizabeth Holman  
McCorkle, James M.  
McDaniel, Shirley Rose Boicourt  
McDow, Donna Jeane  
McKay, Barbara Ann MacIsaac  
McLellan, Elsie Elizabeth  
Martin, Norma Jean  
Massey, Harold L.  
Matthews, Robert Edward  
Melashenko, Juanita Joan  
Miller, William Eugene  
Montgomery, Charleta Jean  
Myers, Gloria L.  
Nash, Carol Virginia  
Nosler, Peter Cole  
Parks, Gloria Schindler  
Dobbin, Vivian Louise MacPhee  
Duffield, Lawrence C.  
Ellison, Gerald Henry  
Ensley, Sonja Janice  
Fedak, Marian Anne  
Ford, Dorothy  
Fox, Kenneth J.  
Fuller, Lester Hubert  
Funada, Junichi  
Gildersleeve, Heather Bette-Alice  
Gonzalez, Ramon Rafael, Jr.  
Graham, Marjorie Norma  
Grindley, James S.  
Harting, Juanita E.  
Heaton, Shirley Ann  
Henderson, Betty Royal  
Hendrickson, Heather Bernadette  
Hiebert, Joy Lorraine  
Higashi, Joyce A.  
Hoss, Sharon Joyce  
Huether, Carolyn Janet  
Jensen, Mari Anne  
Kahler, Kenneth H.  
Kasbaum, Kathleen F.  
Kast, William  
Peterson, Leonard Paul  
Pflugrad, Chester  
Polson, Barbara Adele  
Pyke, Ted Aldon  
Qualls, D. Ben  
Reeves, Marjorie Helen  
Reiter, Carmen P.  
Ringerling, Orley Dwight  
Robbins, Don Chase  
Rogers, Russell Donald, Jr.  
Schafer, Herbert Lawrence  
Schuman, Susan  
Smith, Henry Gibson  
Stewart, Carol Jean  
Stringer, Ethel  
Strutz, Peter George  
Sutherland, Margaret Vivian  
Tanner, Dorothy Lillian  
Thomsen, Duane Herman  
Thorn, Ellen Lois  
Thornton, Doris Anne  
Thygeson, Lester Raymond  
Turansky, M. Jean  
Ursin, Janice  
Wagner, Diane Marie  
Wiggins, Delmer L.  
Willey, Tommy Joe  
Williams, Frances Lorraine  
Williams, Judith Anita  
Wimer, Gaylenne Jean  
Windels, Janet Dawn  
Wiss, Katharine Elizabeth  
Woodbury, Milo John  
Wren, John Clarence  
Young, Alice Maye  
Zaugg, Keith Ray

## BACHELOR OF SCIENCE IN ENGINEERING

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Dick, Charles Benjamin  
Dietrich, Gerald Alvin  
McGinnis, Larry R.  
Merrill, James Howard  
Price, Norman L.  
Richards, William Robert  
Ruckle, Edward Wayne  
Stanyer, Thomas O.

## MASTER OF ARTS

Britton, Nadine Patricia  
Brock, George W.  
Carr, Dalles L.  
Dealy, Donald M.  
Derby, Melvin Lee  
Farance, Mae Doherty  
Gordon, Paul A.  
Gouge, David L.  
Hamilton, Robert Keith

Johnson, Melvin C.  
Merrill, Joan Barbara  
Nelson, Authur Leroy  
Peach, Olin J.  
Stoehr, Waldemar Wolfgang  
Thatcher, Elizabeth Burdette  
Valle, Richard Cruz  
Wahlen, Kenneth L.  
Watts, Donald Earl  
Wright, Evelyn Hazel



# INDEX

<b>A</b>	
Academic Information .....	31
Academy Faculty .....	14
Accident Insurance .....	141
Accreditation .....	1
Administration .....	8
Admission by Examination .....	33
Admission Procedure .....	31
Admission to Advanced Standing .....	33
Admission to Freshman Class .....	32
Advisers, Academic and Organizations .....	17
Advisers, Personal .....	17
Aims of the College .....	19
Andrews University .....	127
Application .....	31
Application Fee .....	139
Applied Arts, Required .....	42, 44
Applied Music .....	115
Aptitude Tests .....	33
Art .....	52
Associated Student Fee .....	139
Auditing Classes .....	34
Automobile Parking Fee .....	140
Automobile Registration .....	28
<b>B</b>	
Bachelor of Arts Degree .....	41
Bachelor of Arts Degree, Basic Requirements .....	41
Bachelor of Arts in Music .....	112
Bachelor of Music .....	44, 110
Bachelor of Science Degree, Basic Requirements .....	43
Bachelor's Degree, Second .....	44
Basic Requirements for Bachelor of Arts Degree .....	41
Basic Requirements for Bachelor of Science Degree .....	43
Bequests and Donations .....	142
Biblical Languages .....	54
Biological Sciences .....	55
Biological Station at Anacortes .....	55
Board and Room, Cost of .....	140
Board of Trustees .....	8
Books and Supplies, Cost of .....	141
Buildings .....	21
Business and Economics .....	60
<b>C</b>	
Calendar for 1963-64 .....	7
Candidacy for a Degree .....	41

Cars, Use of Vehicles .....	28
Certification, Candidacy for .....	67
Chapel Attendance .....	27
Chemistry .....	64
Church and Sabbath School .....	24
Citizenship of Students .....	27
Clara E. Rogers Elementary School .....	22
Class Attendance .....	38
Classification of Students .....	34
Clinical Division, Nursing .....	131
Clubs .....	25
Committees, Faculty .....	15
Comprehensive Examinations .....	40
Conduct, Moral and Social .....	28
Correspondence Work .....	38
Counselors, Personal .....	17
Course Numbering .....	35, 51
Courses Offered .....	51
Credits Explained .....	35
Credits from Junior College .....	33

## D

Degree, Candidacy for .....	41
Degree Requirements .....	39
Degrees Offered .....	39
Degrees, when Conferred .....	45
Denominational Certification .....	67
Deposits, Advance .....	137
Dormitories, Residence Halls .....	29
Down Payment .....	137

## E

Education .....	67
Education, Master's Degree in .....	67, 71
Education, Elementary .....	68, 70
Education, Secondary .....	70
Elementary School Supervisors .....	14
Elementary Teaching Major .....	68
Engineering .....	74
Engineering Physics Major .....	117
English .....	81
Entrance Requirements .....	32
Examination Permits .....	138
Examinations and Waivers .....	38
Expenses .....	137
Extension Courses .....	38

## F

Faculty, The .....	9
Fees, General .....	139

Fees, Music .....	139
Fees, Special .....	139
Field School of Biology .....	55
Financial Information .....	137
Foods and Nutrition .....	96
French, Courses .....	108
Freshman Orientation .....	33
Freshman Standing .....	34

## G

General Education, Required .....	41-44
General Fee .....	139
German .....	108
Grade-Point Average Explained .....	108
Grading System .....	37
Graduation Record Examination .....	40
Graduate Study .....	34, 39
Graduate Study, Education .....	67, 71
Graduate Study, Biology .....	55
Graduates of 1962 .....	143
Graduation <i>in Absentia</i> .....	45
Graduation with Honors .....	37
Graphic Arts .....	102
Greek .....	54

## H

Health .....	85
Health Center .....	23, 140
History .....	90
Home Economics .....	95
Honors, Honor Roll and <i>Cum Laude</i> .....	37
Housing .....	24
Hyphens in Course Numbers .....	51

## I

Industrial Education .....	100
Industrial Superintendents .....	15
Interior Design and Decoration .....	96

## J

Journalism, Minor in .....	84
Junior Standing .....	34

## L

Languages, Modern .....	107
Late Registration .....	35
Leaving Campus .....	29
Library .....	21
Library Methods .....	116
Load of Study and Work .....	35
Loan Funds .....	142

<b>M</b>	
Majors .....	40
Master of Arts, Education .....	67
Master of Arts, Biology .....	55
Mathematics .....	105
Medical Examination .....	28
Methods Course, General in all Departments .....	71
Minors .....	40
Modern Languages .....	107
Music .....	110
Music Credit Allowed on Degree .....	45
Music Fees .....	139
Music Major .....	112
Music Minor .....	112
<b>N</b>	
Non-departmental .....	116
Numbering of Courses .....	35
Nursing, Courses Required .....	132
Nursing, Entrance Requirements .....	132
Nursing, School of .....	131
<b>O</b>	
Organ Rentals .....	140
Organ, See Music .....	110
Organizations, Student .....	24
<b>P</b>	
Parking Fees .....	140
Physical Education .....	85
Physics .....	117
Pledge of Cooperation .....	29
Pledge, Students .....	29, 31
Political Science .....	92
Pre-professional Curriculums .....	47
Printing, Graphic Arts .....	102
Probation, Scholastic .....	37
Provisional Admission .....	33
<b>R</b>	
Recreation Courses .....	89
Refunds .....	140
Registration .....	34
Registration, Changes in .....	35
Religion, General Requirements .....	42, 44
Religion, Theology .....	127
Remittance, Payments .....	138
Residence, for Graduation .....	40
Residence Hall Expenses .....	140

Residence Required of Unmarried .....	24, 29
Room Reservation and Cost .....	140
Rooms, Care of .....	29
Rooms Available .....	24, 29

## S

Sabbath Observance .....	27
Scholarships and Loans .....	142
Scholarship Plans .....	141
Scholastic Probation .....	37
Secondary School Students .....	30
Secretarial Science .....	121
Senior Class Membership .....	33, 41
Senior Standing .....	34, 41
Social Science .....	93
Social Standards .....	28
Sophomore Standing .....	34
Spanish .....	107
Speech .....	125
Sports, Intramural .....	30
Statistics, Course .....	62
Student Health Center .....	23, 140
Student Organizations .....	17, 24
Study and Work Loads .....	35
Swimming Pool .....	23

## T

Teacher Certification .....	40, 67
Teaching Majors and Minors .....	40
Terminal Courses .....	38, 100
Theology, School of .....	127
Transcripts .....	38
Transient Students .....	33
Tuition and Fees .....	138

## U

Upper Division Credits, Requirements .....	39, 51
Upper Division Numbers .....	39, 51

## V

Vehicles, Use of .....	28
Vocational and Technical Programs .....	38
Vocational Arts .....	100
Vocational Credits .....	42, 44

## W

Waivers .....	38
Withdrawals .....	35
Work Load .....	35
Work, Student .....	141
Worship, Attendance .....	29



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## MAJOR AREAS OF STUDY

ical Languages

iology

usiness Administration

Chemistry

Elementary Education

Engineering

Engineering Physics

English

Foods and Nutrition

German

History

Industrial Education

Interior Design and Decoration

Mathematics

Medical Technology

Music

Nursing

Physical Education

Physics

Religion

Secretarial Science

Spanish

Theology

ed on broad studies in the humanities, basic science, mathematics, social science and the Christian heritage.