

YEAR 1958-1959

WALLA WALLA COLLEGE BULLETIN



ADMINISTRATION BUILDING MAIN ENTRANCE





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1958-1959**

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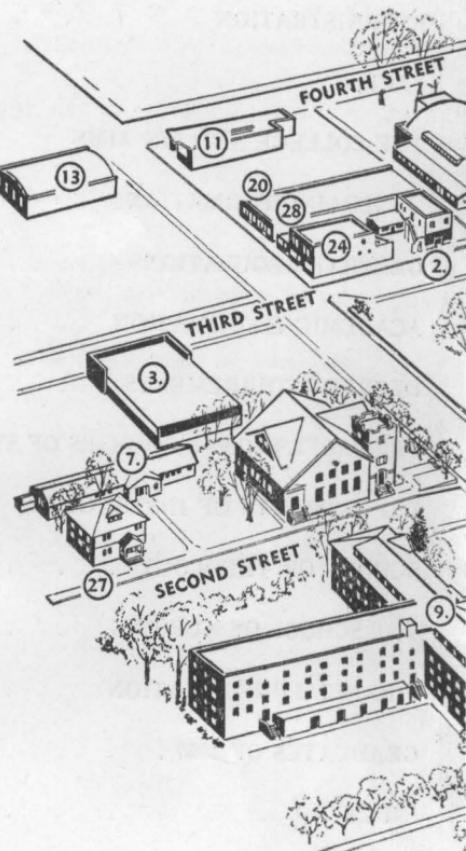
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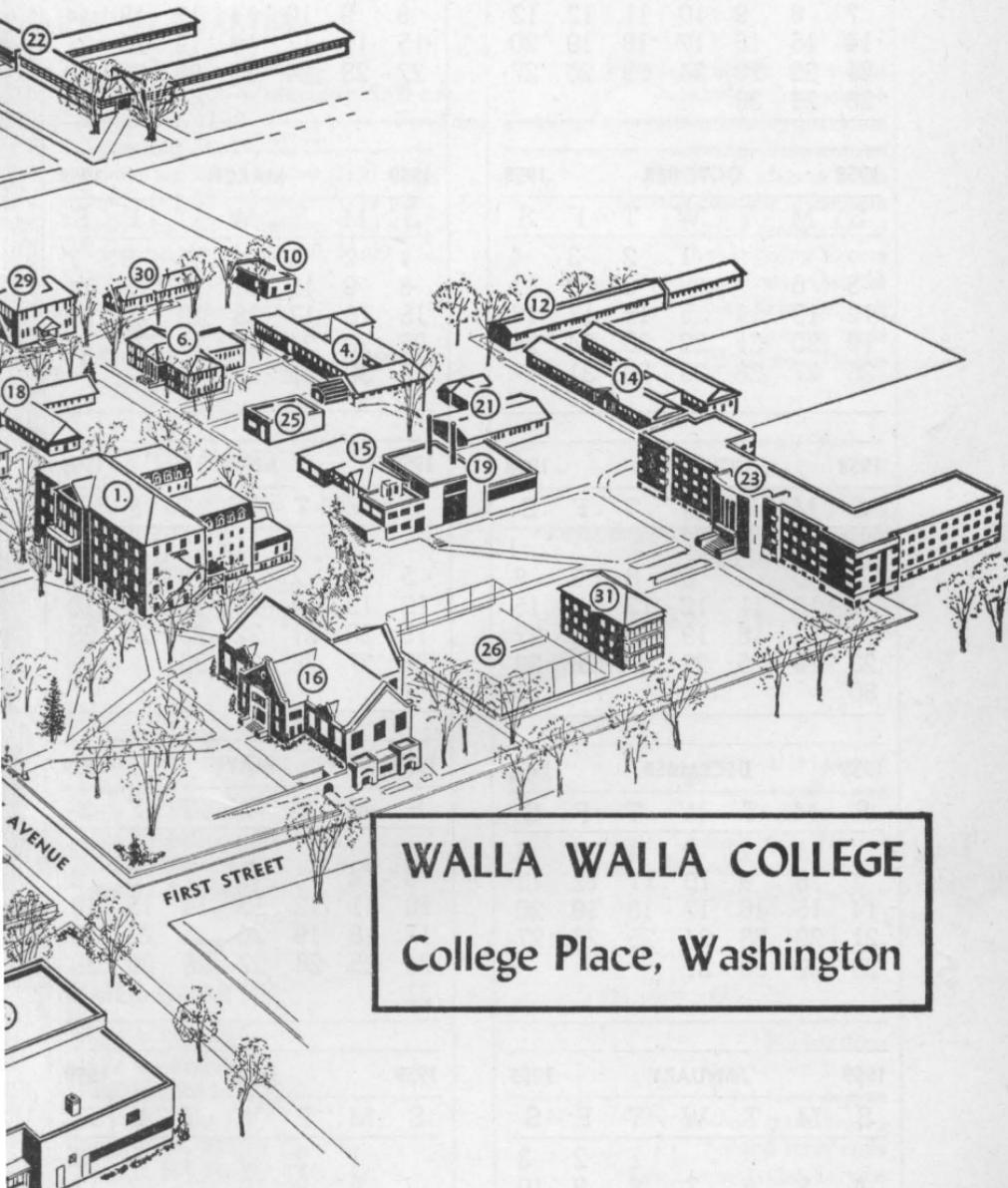
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CONTENTS

CAMPUS MAP	4
CALENDAR FOR 1958-1959	7
BOARD OF TRUSTEES	8
ADMINISTRATION	8
FACULTY	9
THE COLLEGE AND ITS AIMS	19
GENERAL INFORMATION	21
GENERAL REGULATIONS	27
ACADEMIC INFORMATION	33
DEGREE REQUIREMENTS	41
PRE-PROFESSIONAL COURSES OF STUDY	47
DEPARTMENTS OF INSTRUCTION	53
SCHOOL OF THEOLOGY	119
THE SCHOOL OF NURSING	123
FINANCIAL INFORMATION	133
GRADUATES OF 1957	141
INDEX	143

1. Administration Building
2. Bakery
3. Bindery
4. Biology
5. Cafeteria
6. Chemistry
7. Clinic
8. Columbia Auditorium
9. Conard Hall
10. Custodial
11. Dairy
12. Engineering
13. Garage
14. Industrial Education
15. Laundry
16. Library
17. Music Conservatory
18. Music Conservatory Annex
19. Power House
20. Press
21. Repair Shop
22. Rogers Elementary School
23. Sittner Hall
24. Store
25. Swimming Pool
26. Tennis Court
27. Union Hall
28. U. S. Post Office
29. Walla Walla College Academy
30. Walla Walla College Academy Annex
31. West Hall





WALLA WALLA COLLEGE
College Place, Washington

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Dec 17
Dec 17
Dec 17
or
Jan 5

CALENDAR

AUTUMN QUARTER

September 16—Tuesday	Freshmen arrive on campus
September 17—Wednesday, 8:00 a.m.	Freshman Convocation
September 17-19	Freshman Testing, Orientation, and Registration
September 18, 19, 21, 22	General Registration
September 22—Monday, 7:30 a.m.	Freshman classes begin
September 22—Monday, 7:30 p.m.	Faculty-Student Reception
September 23—Tuesday, 7:30 a.m.	All other classes begin
November 26 (noon)-30, 10:00 p.m.	Thanksgiving Recess
December 1-14	Registration for Winter Quarter
December 15, 16, 17	Final Examinations
December 17—Wednesday	Quarter ends
December 18-January 4, 10:00 p.m.	Christmas Recess

WINTER QUARTER

January 5—Monday, 7:30 a.m.	Instruction begins
March 2-15	Registration for Spring Quarter
March 16, 17, 18	Final Examinations
March 18—Wednesday	Quarter ends
March 19-23, 10:00 p.m.	Spring Recess

SPRING QUARTER

March 24—Tuesday, 7:30 a.m.	Instruction begins
June 3, 4, 5	Final Examinations
June 5—Friday	Quarter ends
June 5—Friday, 8:00 p.m.	Senior Consecration Service
June 6—Saturday, 11:00 a.m.	Baccalaureate Service
June 7—Sunday, 10:00 a.m.	Commencement Service

SUMMER QUARTER

June 8—Monday	Registration
June 9—Tuesday	Instruction begins
July 10—Friday	First term begins
July 13—Monday	Second term begins
August 14—Friday	Second term ends
August 14—Friday, 8:00 p.m.	Senior Consecration Service
August 15—Saturday, 11:00 a.m.	Baccalaureate Service
August 15—Saturday, 8:00 p.m.	Commencement Service

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BLANCHE E. JONES	Assistant Dean of Women (Hospital Division)
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CLINTON A. WALL, B. S., A. D. A.	Director of Food Service

THE FACULTY

—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 I., 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

PROFESSORS

Prof. APLINGTON, KENNETH A., Professor of English

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

Dr. ASHLEY, LAURENCE M., Professor of Zoology

B. S., 1930, Michigan State University; M. A., 1932, University of Michigan; Ph. D., 1945, University of Southern California

Miss BLACKNEY, ANNA L., Professor of Library Science

B. A., 1930, Emmanuel Missionary College; B. S. in L. S., 1936, Western Reserve University; M. A., 1941, University of Chicago

—*BOOTH, ERNEST S., Research Professor of Zoology

B. A., 1938, Pacific Union College; M. S., 1940, University of Washington; Ph. D., 1947, State College of Washington

Dr. BOWERS, GEORGE W., Professor of Chemistry

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

Dr. BROWN, ROBERT H., Professor of Physics

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

Dr. BULL, STANLEY, Professor of Education

B. A., 1936, American University of Cairo (Egypt); M. A., 1937, University of Edinburgh (Scotland); Ph. D., 1954, University of Michigan

Dr. CHRISTIAN, PERCY W., Professor of History

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

Prof. CROSS, EDWARD F., Professor of Engineering

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

Dr. GERNET, STERLING K., Professor of Music

B. F. A., 1935, University of Nebraska; M. Mus. Ed., 1936, Ed. D., 1939, Temple University

HAFNER, JOHN J., Professor of Music

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

HANSON, FREDRICK R., Professor of Nursing Education

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

Elder HEUBACH, PAUL C., Professor of Religion

B. A., 1935, Pacific Union College; M. A., 1944, Seventh-day Adventist Theological Seminary

Miss SORENSEN, AGNES L., Professor of Modern Languages

B. A., 1923, Emmanuel Missionary College; M. A., 1929, University of Michigan

—*THURSTON, CLAUDE E., Professor of Chemistry

B. A., 1926, Walla Walla College; M. S., 1934, University of Washington; Ph. D., 1948, State College of Washington

Prof. WALKER, STANLEY E., Professor of Music

B. Mus., 1941, M. Mus., 1944, Northwestern University; F. A. G. O., 1957

*Leave of Absence 1958-1959.

A 1. **WESTERMEYER, HARRY E.**, Professor of History

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

ASSOCIATE PROFESSORS

BALHARIE, GORDON S., Associate Professor of Religion

B. A., 1945, Washington Missionary College; M. A., 1949, Seventh-day Adventist Theological Seminary

BRINKER, ORASON L., Associate Professor of Mathematics

B. A., 1939, Union College; M. A., 1945, University of Denver

COFFIN, HAROLD G., Associate Professor of Biology

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

DAVIS, MELVIN W., Associate Professor of Music

B. A., 1949, College of the Pacific; M. Mus., 1954, Chicago Musical College

LUDGATE, T. K., Associate Professor of Religion

B. A., 1942, Washington Missionary College; M. A., 1945, Seventh-day Adventist Theological Seminary

MECKLING, FRANK E., Associate Professor of History

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

MEHLING, J. G., Associate Professor of Business Administration

B. B. A., 1934, Walla Walla College; M. A., 1947, University of Washington; C. P. A., 1947, State of Washington

MEIER, FABIAN A., Associate Professor of Education

B. A., 1942, Union College; M. A., 1948, Ohio State University; Ed. D., 1955, University of Maryland

RITTENHOUSE, EVELYN, Associate Professor of Secretarial Science

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

SCHLÖTHAUER, LILAH GODFREY, Associate Professor of Mathematics

B. A., 1923, Walla Walla College; M. S., 1934, University of Washington

SEARLE, BERNICE E., Associate Professor of Education

B. A., 1939, Walla Walla College; M. A., 1941, University of Minnesota

SHANKEL, CECIL W., Associate Professor of Chemistry

B. A., 1924, Walla Walla College; M. A., 1926, University of Nebraska

STOEHR, HENRIQUE G., Associate Professor of Modern Languages

B. A., 1948, Walla Walla College; Dr. U. P., 1952, University of Paris

STRATTON, ANN L., Associate Professor of Nursing Education

B. A., 1928, Walla Walla College; P. H. N., 1931, B. S., 1931, University of Oregon; R. N., 1932, Portland Sanitarium and Hospital; M. A., 1952, Columbia University

WALLER, JOHN O., Associate Professor of English

B. A., 1941, San Diego State College; M. A., 1949, Ph. D., 1954, University of Southern California

WINTER, EUGENE S., Associate Professor of Physical Education

B. A., 1941, Walla Walla College; M. S., 1948, State College of Washington

WRIGHT, EVELYNNE F., Associate Professor of Home Economics

B. A., 1941, Pacific Union College; M. S., 1953, Oregon State College

ASSISTANT PROFESSORS

ALCOCK, HERBERT J., Assistant Professor of Religion

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

BARNETT, CLAUDE C., Assistant Professor of Physics

B. S., 1952, Walla Walla College; M. S., 1956, State College of Washington

DAHLBECK, RUSSELL M., Assistant Professor of Physical Education
 B. S., 1950, Walla Walla College; M. S., 1953, University of Washington

EMERY, BEATRICE I., Assistant Professor of Biology
 B. A., 1943, Walla Walla College; M. S., 1948, University of Nebraska

GROVE, J. PAUL, Assistant Professor of Religion
 B. A., 1944, Washington Missionary College; M. A., 1956, Seventh-day Adventist Theological Seminary.

JONES, CARL T., Assistant Professor of Chemistry
 B. A., 1933, Washington Missionary College; M. S., 1939, Catholic University of America

LITKE, RICHARD L., Assistant Professor of Biblical Languages
 B. A., 1948, Walla Walla College; B. A., 1953, M. A., 1953, University of California

MOORE, ROBERTA J., Assistant Professor of English
 B. A., 1948, Atlantic Union College; M. A., 1953, Boston University

SILVER, ROBERT E., Assistant Professor of Education
 B. A., 1948, Walla Walla College; M. A., 1950, Ed. D., 1956, University of Washington

TAYLOR, ELAINE MYERS, Assistant Professor of Music
 B. A., 1946, Walla Walla College; M. A., 1954, Columbia University

TAYLOR, MORRIS L., Assistant Professor of Music
 B. A., 1951, Atlantic Union College; M. Mus., 1953, Boston University College of Music

TEMPLE, CHARLES V., Assistant Professor of Art
 B. A., 1947, Colorado College; M. A., 1954, San Jose State College

TRAUTWEIN, CALVIN L., Assistant Professor of Industrial Education
 B. A., 1945, La Sierra College; B. S., 1950, Pacific Union College; Ed. M., 1955, Oregon State College

WEAVER, GENEVIEVE STABLER, Assistant Professor of Secretarial Science
 B. A., 1949, Walla Walla College

YOUNG, PAULINE, Assistant Professor of Nursing
 R. N., 1927, Portland Sanitarium and Hospital; B. S., 1933, University of Oregon; M. S., 1946, University of Washington

INSTRUCTORS

ANDREWS, KATHRYN, Instructor in Secretarial Science
 B. A., 1948, Walla Walla College

*BATTENBURG, JOSEPH R., Instructor in Engineering
 B. S., 1954, Emmanuel Missionary College; B. S. (Eng.), 1956, University of Michigan

BOECK, STELLA, Instructor in Nursing
 R. N., 1927, Florida Sanitarium and Hospital; B. S., in N. Ed., 1943, Washington Missionary College

BULL, NANCY MURDOCH, Instructor in English
 B. A., 1930, Emmanuel Missionary College; M. A., 1954, Pacific Union College

BURGESON, RUTH E., Instructor in English
 B. A., 1951, M. A., 1957, Pacific Union College

CANADAY, LEWIS H., Instructor in Industrial Education
 B. S., 1953, Walla Walla College

COWIN, DARRELL J., Instructor in Industrial Education

FOSTER, ZEPH H., Instructor in Education
 B. A., 1951, Walla Walla College; M. S., Ed., 1956, University of Idaho

FROMAN, NADA, Instructor in Diet Therapy
 B. S., 1954, College of Medical Evangelists; A. D. A., 1955

HARE, GORDON B., Instructor in Mathematics
 B. A., 1951, Washington Missionary College; M. S., 1954, University of Colorado

HARTER, CHARLES W., Instructor in Engineering
 B. S. in Engineering, 1950, Walla Walla College; P. E., 1956, Oregon, 1957, Washington

*Leave of Absence 1958-1959.

JONES, LUCILE HALL, Instructor in Nursing Education
R. N., 1933, Florida Sanitarium and Hospital; B. S. N. Ed., 1936, Washington Missionary College; M. S., 1955, Oregon State College; M. A., 1956, Walla Walla College

KNAPP, BETTY L., Instructor in Nursing
B. S., 1951, M. A., 1957, Walla Walla College

LARSON, EDWIN W., Instructor in Engineering
B. S. in Engineering, 1949, Walla Walla College; P. E., 1956, Oregon

LAY, MAE MACKLIN, Instructor in Speech
B. A., 1924, Walla Walla College

MASDEN, GLENN W., Instructor in Engineering
B. S. E. E., 1955, University of Colorado

MILLER, PHYLLIS E., Instructor in Operating Room Technique
B. S., 1952, Walla Walla College

NULL, CHARLES E., SR., Instructor in Medical and Surgical Specialties
B. S., 1953, Walla Walla College

PENNER, JONATHAN G., Instructor in Speech
B. A. 1944, Emmanuel Missionary College; M. S., 1958, Purdue University

RIGBY, DONALD W., Instructor in Biology
B. A., 1950, La Sierra College; M. A., 1956, Walla Walla College

SCHERESKY, GRACE, Instructor in Nursing
R. P. T., 1945, College of Medical Evangelists; R. N., 1949, Portland Sanitarium and Hospital; B. S., 1954, University of Oregon

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

STAFFORD, PEARL, Instructor in Religion

WALKER, MYRNA, Instructor in Business Administration
B. A., 1955, Walla Walla College

WALL, CLINTON A., Instructor in Foods and Nutrition
B. S. in Dietetics, 1950, College of Medical Evangelists; A. D. A., 1950

WOLFE, WADE H., Instructor in Industrial Education
B. S., 1954, M. A., 1955, Walla Walla College

YOUNG, ZELLA CASPER, Instructor in Physical Therapy
R. N., 1932, Portland Sanitarium and Hospital

ZOLBER, KATHLEEN KEEN, Instructor in Home Economics
B. S., 1941, Walla Walla College

WALLA WALLA COLLEGE ACADEMY SUPERVISORY TEACHERS

SCHWARTZ, HAROLD D., Principal
B. B. A., 1941, M. A., 1951, Walla Walla College

CHENEY, M. O., Supervisor in Languages and Chemistry
B. A., 1937, College of Idaho

CHRISTIAN, JOHN W., Supervisor in History
B. A., 1956, Walla Walla College; M. A., 1957, Northwestern University

DOBSON, EVELYN, Supervisor in Secretarial Science
B. A., 1956, Walla Walla College

GRIESE, GEORGE B., Supervisor in Mathematics and Science
B. A., 1950, Union College; M. Ed., 1952, University of Nebraska

ROWSE, MYRTLE, Supervisor in English
B. A., 1939, Walla Walla College

THOMAS, MARILEE HAYES, Supervisor in English
B. A., 1954, Walla Walla College

TIMOTHY, EDWARD L., Supervisor in Music
B. Mus., 1953, Minot State Teachers College

WEAVER, HORACE E., Supervisor in Bible
B. A., 1923, Emmanuel Missionary College; M. A., 1945, Seventh-day Adventist Theological Seminary

CLARA E. ROGERS ELEMENTARY SCHOOL SUPERVISORY TEACHERS

FOSTER, ZEPH H., Principal

B. A., 1951, Walla Walla College; M. S. Ed., 1956, University of Idaho

FERGUSON, RUBY BANKHEAD

B. A., 1945, Walla Walla College

FOSTER, LORRAINE BEACH

B. S. Ed., 1957, University of Idaho

HIEBERT, ROSE HOLCOMB

HUDSON, HELEN GLADYS

B. A. in Elementary Education, 1945, Walla Walla College

MECKLING, KATHERINE LUTZ

B. A., 1931, Union College

ROBERTS, CAROLYN SCHUTT

B. A., 1957, Walla Walla College

ROY, CECIL

B. A., 1958, 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

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SPOO, A. W., General Manager, Industrial Departments

BOND, V. D., Press

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DIETRICH, FRANZ, Farm and Herd

HIEBERT, A. O., Dairy

HOFFMAN, LLOYD, Bakery

JOHNSON, MERLE L., Dry Cleaners

MUNROE, EARL C., Custodial

SARGENT, STANLEY, Construction

WALL, CLINTON, Food Service

WHITEHOUSE, IRENE DINNIS, Laundry

ZIECLE, ARTHUR J., Heat and Light (Acting)

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miss Katty Denton - music
13 Prof. Art White
- Mrs. Lillian Kozachenko - coffee
- Mrs. Mary -

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FACULTY ADVISERS

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<i>The Mountain Ash</i>	ROBERTA MOORE
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Religious-Cultural Activities Committee.....	H. G. STOEHR
Social Activities Committee.....	R. H. BROWN, HELEN EVANS
Student Association Center.....	AGNES SORENSEN, MRS. MELVIN ZOLBER
Sabbath School.....	L. M. ASHLEY
Missionary Volunteers.....	J. R. SLOOP
Chiquita Sola.....	MRS. HORACE E. WEAVER
Aurora Duxes.....	CLAUDE C. BARNETT
Epsilon Mu Sigma.....	RUSSELL M. DAHLBECK



GENERAL INFORMATION

THE COLLEGE AND ITS AIMS

WALLA Walla College is a private, church-related institution of higher learning conducted by the Seventh-day Adventist denomination. Founded in 1892, it serves as a center of higher education for the youth of the Church in the Pacific Northwest. Students from other geographic regions of the United States, Canada, and many foreign lands, bring a cosmopolitan influence to its campus that enriches and stimulates the cultural life of the student. The College, though essentially a coeducational liberal arts college, also offers certain professional and preprofessional training.

Seventh-day Adventists accept without reservation the teachings of the Bible, among which they consider basic the immutability of the law of God, the original perfection of the universe, the fall of man, the plan of salvation, the imminent second coming of Christ, and the existence of the redeemed throughout eternity.

In harmony with these doctrines, Walla Walla College recognizes that, "true education means more than the pursual of a certain course of study. It means more than a preparation for the life that 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 his world, and for the higher joy of wider service in the world to come."

To bring into actuality this conception of education, Walla Walla College declares its specific aims to be:

1. To present the ideals and principles of Christianity in such a way as to promote the development of a consistent Christian life characterized by loyalty to God and service to humanity.
2. To train for leadership in church and community in harmony with the distinctive ideals and world program of the Seventh-day Adventist denomination.

3. To develop character distinguished by power of will and ability to control self, bringing every motive and desire into conformity with the eternal principles of right established by God and respected by the most enlightened elements of humanity.
4. To provide a broad basis for true culture which will permit proper discrimination as to the values of life, encourage devotion to noble ideals and practices, and lead to a worthy use of leisure.
5. To guide in the appropriation of the accumulated knowledge of the ages, in the stimulation of the power of independent reasoning, and in the acquisition of the ability to inspire others to a greater passion for wisdom and truth.
6. To inspire intelligent and sincere love for our country and its fundamental principles, while at the same time emphasizing the brotherhood of man, thus providing a preparation for judicious participation in the privileges and responsibilities of citizenship.
7. To encourage proper evaluation of the place of the individual in modern society, of his relationship to the social and economic order, and of his attitude toward an ever-changing civilization.
8. To facilitate the acquisition and maintenance of a high standard of bodily health, thus giving the individual genuine satisfaction in life and enabling the mind and spirit to make valuable contributions to our contemporary world.
9. To stimulate participation in practical vocational activities which will lead to an appreciation of the dignity of labor, furnish a definite conception of the abilities and traits requisite for success in the various vocations, and impart a proficiency adequate to provide employment in a productive and self-respecting occupation.

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 National Monument. 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

ADMINISTRATION BUILDING. The Administration Building is a three-story structure located in the center of the campus. Its ivy-covered walls symbolize the rich academic tradition and history of service to students. 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 260 women, together with such special features as a large worship room done in church style, a recreation room, and an attractive parlor. A modern communication system aids in making dormitory life delightful.

Sittner Hall, the men's residence hall, is one of the newer buildings on the campus. Erected in 1947, it houses 315 men, and is modern in every respect. A spacious lobby and parlor, a worship room seating 400, a recreation room, and attractive student rooms assure comfortable living.

LIBRARY. The College Library is a vital part of the educational program at Wa'la Walla College. The building, completed in 1944, is convenient and well

planned. Ample 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 scholarly material on microfilm and microcards accessible. The Library contains 54,000 bound volumes and five thousand pamphlets. An average of 2,500 volumes are accessioned annually. The Library receives 425 current periodicals regularly and also has a classified file of almost one thousand 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 clearing house 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 dark rooms, 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, Washington, on the Puget Sound.

CHEMISTRY BUILDING. The Chemistry Department is housed in a two-story brick building located southwest of the quadrangle. The rather extensive accommodations include four classrooms, four laboratories, a library, a seminar room, three offices, a research room, and two stockrooms.

CLARA E. ROGERS ELEMENTARY SCHOOL. The Rogers School, completed in 1952, is one of 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.

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 ultramodern 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 BUILDING. The Engineering Department has several classrooms, a modern drafting room, a well-equipped materials testing laboratory, and an electrical engineering laboratory. Generous financial grants in recent years have provided much expensive equipment which is vital to a specialized curriculum such as engineering.

JOHNSON MEMORIAL CONSERVATORY. The Conservatory and the annex provide the Music Department with studios, practice rooms, and an auditorium for recital purposes. Special 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.

The College Farm, consisting of 260 acres, raises hay, grains, sugar beets and beans. The new college barn, erected in 1954, is one of the most modern installations of its type in the Walla Walla Valley. A herd of approximately one hundred cows supplies milk for the College and for commercial uses.

SPECIAL INFORMATION FOR VETERANS

HOUSING. In addition to the residence halls, the College operates fifty units of one- and two-bedroom apartments to which married veteran students and their families have occupancy priority. Unmarried veterans should plan to live in the regular residence halls.

KOREAN WAR VETERANS. Walla Walla College has been approved for training of Korean War Veterans under Public Law 550 and 894. Servicemen who have served in the Armed Forces between June 20, 1950, and January 31, 1955, are eligible for training benefits under Public Law 550 or 894. To receive the benefits provided by these laws, the veteran must obtain a "Certificate of Education and Training" from the Veterans Administration. Application forms for these benefits can be obtained at any Veterans Administration Office or at the Office of Veterans Affairs at Walla Walla College. Application should be made before school begins if at all possible.

P. L. 550 veterans pay school expenses direct to the Business Office, as non-veteran students do. A "Monthly Certification" form is completed by the veteran each month and approved by the College. The Veterans Administration authorizes payment from the information supplied on this form. The subsistence checks can then be expected to reach the veteran on the twentieth of the following month; however, the first check may take as long as sixty days to arrive after eligibility has been established. Additional information may be obtained from any Veterans Administration Office or at the Veterans Office of the College.

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 1,050 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.

SOCIETIES AND ORGANIZATIONS. Student organizations based on residence include Aleph Gimel Ain for the young women of the College residence halls, Omicron Pi Sigma for the young men of the College residence halls, and the Chiquita Sola, Aurora Duxes, and Epsilon Mu Sigma for village students.

Various departments also sponsor student organizations for the special interests of their groups. These organizations include the A Tempo Club, Beta Mu, Biology Club, Business Administration Club, Chemistry Club, Circulo Castellano, Engineering Club, Gymkhana Club, Industrial Education Club, International Relations Club, Les Amis de L'Art Club, Les Pratiques Club, Mathematics Club, Pauling Club, Pegasus Club, Teachers of Tomorrow, Theology Club, Theta Phi Delta, and the Toastmixers Club.



GENERAL REGULATIONS

GENERAL REGULATIONS

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 Wala College for the purpose of entering any department of the College is subject to its supervision from the time of arrival in College Place, and is under its jurisdiction 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.

RESIDENCE

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 in the immediate community. Under special circumstances, however, sophomores and upper division students with superior college records may make application to the Administrative Council 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 the official approval of the Administrative Council 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.

CHAPEL

The chapel hour, which is held three times each week, is regarded as a vital part of the total educational program at Walla Walla College, and regular attendance is required of each student. For each unexcused absence exceeding two in a quarter, the student is charged a penalty of \$1.00.

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 automobiles, must register these automobiles within twenty-four hours after arrival at the College; failure to comply with this regulation makes the student liable to a penalty of \$25.00. A fee of \$1.00 is charged to defray costs of automobile registration, decal, and administration. 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 AND SERVICE

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.

MISCELLANEOUS

The College cannot accept responsibility for any loss 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 and homelike 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.

Any student who finds it necessary to be absent from his residence hall after the retiring hour should make previous arrangements with his residence hall dean for entrance. Any attempt to enter a residence hall by other than the regular means will be considered a misdemeanor and will result in disciplinary action.

VISITORS. The College residence halls are considered to be private homes. Persons who call upon students in the residence halls are expected to follow the same rules of courtesy that they would if calling at any other private home. Young women may receive gentlemen friends in the residence hall parlors by permission of the Dean of Women.

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 incur a charge of \$5.00.

Each student is expected to bring his own bedding—four sheets, two pillow-cases, a bedspread, a pillow, blankets, or comforters—as well as towels, dresser scarfs, curtains, a drinking glass, a laundry bag, and a cover for the study table. A bathrobe or housecoat, and slippers should be provided for use during study hours. All women students expecting to work in the kitchen or laundry should bring three white uniforms made of light material.

Because of hazards of accident or fire, students are not permitted to possess firearms, candles, etc., in their rooms. Electrical appliances may be used only after being approved by the dean, and will be subject to a charge of \$1.00 each per month.

Radios are provided for the use of students in the residence hall parlors. Students are not encouraged to have radios, phonographs, and tape recorders in their residence hall rooms, but permission to do so may be granted by the residence hall dean subject to certain general regulations.

WORSHIP ATTENDANCE. Attendance at evening and morning worship, Sabbath school, and Sabbath morning church services, is expected of all students. If a student is ill or for some other good reason cannot attend these meetings, he should obtain permission from his residence hall dean; he will then be expected to remain quietly in his own room. Excessive unexcused absences from dormitory worship are subject to disciplinary action.

SECONDARY SCHOOL STUDENTS. Secondary school students (grades 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.



ACADEMIC INFORMATION

ACADEMIC INFORMATION

WALLA Walla College will admit as students, men and women of good moral character who are willing to do earnest, faithful work. 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 \$2.00 fee must be included. The chief factors considered by the Admissions Committee are good character, scholastic achievement, intellectual ability, and good health. Notification of acceptance is sent promptly after the applicant's records of previous work and recommendations have been received by the College. 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. Students who are allowed to register temporarily may not be permitted to remain in college longer than one quarter without presenting a transcript of previous work.

ADMISSION TO THE FRESHMAN CLASS

Applicants for admission to the Freshman class shall have been graduated from a recognized secondary school. The pattern of subjects required for entrance is not rigidly prescribed, but an applicant should have completed those subjects which are prerequisites of the course of study he wishes to pursue in college. The following subjects included among the total presented for admission provide the

necessary background for *any* course of study in the College, and are thus highly recommended:

English	3 units
Foreign Language	2
History	1
Mathematics: Algebra, Geometry	2
Science	1
Vocational	1

ENTRANCE REQUIREMENTS FOR THE CURRICULUMS. Certain specific subjects are required for admission to the various curriculums or courses of study in the College. 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.

Biology	A	Medical Technology	A
Business Administration	C	Modern Languages	B
Chemistry	A	Music	B
Education	B	Nursing	D
Engineering	A	Physical Education	B
English	B	Physics	A
Foods and Nutrition	A	Pre-Dental	A
History	B	Pre-Law	C
Home Economics	C	Pre-Medical	A
Industrial Education	B	Secretarial Science	C
Interior Design and Decoration	C	Theology	B
Mathematics	A	Zoology	A
	A	B	C
English	3	3	3
History	1	1	1
Mathematics:			
Algebra	1	—	1
Geometry	1	—	—
Unspecified	—	1	—
Science	1	1	1
Additional Academic Units	2	3	2

PROVISIONAL ADMISSION. Applicants who may lack one or more of the subjects required for entrance to their chosen course of study may be granted provisional admittance. In such case the preparatory work must be completed during the first year of residence. Students with provisional admission are not eligible for class membership.

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 examinations as required or administered by the Admissions Committee.

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 wishes to transfer. A stu-

dent is not considered for degree candidacy until the entrance requirements of his curriculum or course of study have been met.

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

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 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 institutions, 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 complete a minimum of 36 credits in residence including nine credits of upper division work in the major and three credits in the minor. A physical examination is required of all transfer students at the time of registration.

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 \$1.00 for each change of registration is made after the first week of instruction.

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 five 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 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 \$5.00. Students may not register after the second week of a quarter without permission of the 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. Students are expected to spend two hours a week in outside preparation or three hours a week in supervised study or laboratory work for each credit.

COURSE LOAD. The normal load is 16 credits per quarter. Sophomores, juniors, and seniors may register for 18 credits if their 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 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. Students who must earn part of their school expenses should plan a reduced load. The following is recommended:

OUTSIDE WORK	COURSE LOAD
1 to 20 hours per week	16 credits
20 to 24	12 to 14
24 to 30	10 to 12

COURSE NUMBERING

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 credits 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.

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 head of the department and the Academic Standards Committee.

Ordinarily, courses numbered 100 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
Physical Education and Health	6

However, a sophomore, in counsel with his adviser, may be permitted to register for courses numbered 100-149 if he has all the course prerequisites, his scholarship is acceptable, and if progress in his chosen objective would otherwise be jeopardized. Such registrations are subject to review by the Academic Standards Committee.

GRADING SYSTEM

The quality of student work is measured by a system of grades and by computed grade-point averages. Each grade is assigned a numerical value in honor 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 by the instructor. The following system of grades and honor point values is used:

A—exceptional	4 honor 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 given when students unofficially withdraw from a class or withdraw after the first five 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 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 honor points for all courses and dividing by the total credits for which grades are received. Credits for which a Wf is 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 course are included.

SCHOLASTIC PROBATION. A student who fails to make satisfactory progress toward graduation may be placed on scholastic probation. A quarter or cumulative grade-point average below 2.00 (C) is considered unsatisfactory and may bring the student's record under review by the Academic Standards Committee.

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, Zoology and Education. For further information concerning graduate courses and degree requirements see the bulletin of the Graduate Division.

SPECIAL. Individuals who cannot fulfill regular requirements for admission to the Freshman class and who are at least 21 years of age may be permitted to register for certain courses provided they have sufficient background to profit from the instruction. Special students are not eligible for a degree. However, by completing requirements for admission to the Freshman class they may ultimately become candidates for a degree.

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.

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 the honor *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 instructor for course work missed for reasons beyond the student's control.

CORRESPONDENCE WORK

The College accepts credits from the Home Study Institute, Washington, D. C., which serves as the extension division of the Association of Seventh-day Adventist Colleges and Secondary Schools, or other recognized correspondence schools. Students may not receive credit for correspondence work taken during the academic year without permission from the Academic Standards Committee. Seniors must have such credits on record at the Registrar's office one month prior to graduation.

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.

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 \$1.00 per transcript is charged thereafter. Credits are not accepted or recorded after a student has ceased residence in the College.



DEGREE REQUIREMENTS

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 100 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 do not require a minor.

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 100 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:

Biology	Mathematics
Business Administration	Medical Technology
Chemistry	Modern Language
Education	Music
Engineering	Nursing
Engineering Physics	Physical Education
English	Physics
Foods and Nutrition	Religion
History	Secretarial Science
Home Economics	Spanish
Industrial Education	Zoology
Interior Design and Decoration	

Minors are available in the following areas:

Art	Music
Biblical Languages	Physical Education
Biology	Physics
Botany	Political Science
Business Administration	Recreation
Chemistry	Religion
Elementary Education	Secondary Education
English	Secretarial Science
German	Social Science
History	Spanish
Home Economics	Speech
Industrial Education	Zoology
Mathematics	

COMPREHENSIVE EXAMINATION. Satisfactory completion of a comprehensive examination in the major is required before a degree may be conferred. Engineering students may substitute an appropriate project approved by the head of the department. A student who fails this examination may not attempt another examination until one quarter has elapsed.

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 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 degree or eligible for senior class membership until officially so notified by the Registrar. Candidates for degrees must be members of the senior class. All correspondence work must be completed and all Incompletes must be removed six weeks prior to graduation. Failure to comply with this regulation may delay graduation.

BACHELOR OF ARTS DEGREE 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:

HUMANITIES

English 1-2-3.

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	
English	Religion	
History	Zoology	9-24
Language		

Students who have had 2 units in secondary school must complete 9 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 Music must complete the following:

Students who have had 2 units of French or German in secondary school must complete 9 credits. Those who have had no language or another language must complete 15 credits of French or German.

9-15

Majors in the following must complete 0-15 credits:

Business Administration	Interior Design	
Education	and Decoration	
Home Economics	Secretarial Science	0-15

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

Literature, Speech. A total of 9 credits including a minimum of 3 credits in Literature is required. The remaining credits may be chosen from Speech or Literature. The Literature may be in a foreign language.

9

NATURAL SCIENCE AND MATHEMATICS

Completion of basic courses in Biological Science, Chemistry, Mathematics, or Physics.

12

SOCIAL SCIENCE

Education, Psychology. Introduction to Education and General Psychology are required. The remaining credits may be chosen from general courses in Education.

9

History. Completion of either History 1, 2, 3 or 51, 52, 53.

9

Religion. Completion of 24 credits. Transfer students will complete 2 credits for each quarter in residence. Religion 51, 52, 53 or the equivalent is required. Twelve credits are to be chosen from the following courses: 4, 5, 6; 11, 12-13 or 111-112; 113; 121, 122, 123; 134, 135, 136; 161, 162, 163; and 184, 185, 186.

24

PHYSICAL EDUCATION AND HEALTH

Health. Completion of the course Health Principles or the equivalent. 3

Medical Cadet Corps. Required of all men under 26 years of age who are registered for United States Selective Service. Those who have completed an equivalent course in secondary school or in an official Medical Cadet Corps camp are exempted. 1½

Physical Education. Physical Education 1-2-3 and Medical Cadet Corps or 1½ credits in Physical Education activity courses are required of all students under 30 years of age. Students with high Physical Fitness Index scores may elect activity courses instead of Physical Education 1-2-3. 3

Veterans who have completed basic training are exempted from Physical Education and Health requirements upon presentation of discharge papers.

APPLIED ARTS

Vocation. Completion of 9 credits in Accounting, Commercial Art, Engineering Drawing, Home Economics, Industrial Education, Lettering, Library Science, Mechanical Drafting, Office Machines II, or Secretarial Science. A minimum of 6 credits must be completed in one department. 9

BACHELOR OF SCIENCE DEGREE REQUIREMENTS

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

HUMANITIES

Credits

English 1-2-3. 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	Zoology	9.24
Chemistry	Physics	
Mathematics		

Students who have had 2 units in secondary school must complete 9 credits if the same language is continued. Those who have had no language or do not continue the same language must complete 24 credits.

No language is required for the following majors:

Business Administration	Medical Technology
Engineering Physics	Nursing
Foods and Nutrition	Physical Education
Industrial Education	

None

Literature, Speech. A total of 9 credits including a minimum of 3 credits in Literature is required except for students majoring in Engi-

neering Physics and those in the School of Nursing. The remaining credits may be chosen from Speech or Literature. The Literature may be in a foreign language. 9

NATURAL SCIENCE AND MATHEMATICS

Completion of basic courses in Biological Science, Chemistry, Mathematics, or Physics. 12

SOCIAL SCIENCE

Education, Psychology. Completion of 9 credits including Introduction to Education, General Psychology, and 3 credits chosen from general courses in Education. Students in the School of Nursing must complete only those courses outlined in their respective curriculums. No courses in education or psychology are required of students majoring in Engineering Physics. 9

History. Completion of either History 1, 2, 3 or 51, 52, 53 is required except for students in the School of Nursing. 9

Religion. Completion of 24 credits. Transfer students will complete 2 credits for each quarter in residence. Religion 51, 52, 53 or the equivalent is required. Twelve credits are to be chosen from the following courses: 4, 5, 6; 11, 12-13 or 111-112; 113; 121, 122, 123; 134, 135, 136; 161, 162, 163; and 184, 185, 186. Students in the School of Nursing complete only those courses outlined in their respective curriculums. 24

PHYSICAL EDUCATION AND HEALTH

Health. Completion of the course Health Principles or the equivalent. 3

Medical Cadet Corps. Required of all men under 26 years of age who are registered for United States Selective Service. Those who have completed an equivalent course in secondary school or in an official Medical Cadet Corps camp are exempted. 1½

Physical Education. Physical Education 1-2-3 and Medical Cadet Corps or 1½ credits in Physical Education activity courses are required of all students under 30 years of age. Students with high Physical Fitness Index scores may elect activity courses instead of Physical Education 1-2-3. 3

Veterans who have completed basic training are exempted from Physical Education and Health requirements upon presentation of discharge papers.

APPLIED ARTS

Vocation. Completion of 9 credits in Accounting, Commercial Art, Engineering Drawing, Home Economics, Industrial Education, Lettering, Library Science, Mechanical Drafting, Office Machines II, or Secretarial Science. A minimum of 6 credits must be completed in one department. Students in the School of Nursing are exempted from this 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 or the Bachelor of Science in Engineering degree must follow the curriculum outlines as listed under Music and Engineering respectively, in the section Departments of Instruction. The Medical Cadet Corps, 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 candidate 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 9 credits of applied music, including 3 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 3 additional credits in ensemble.

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. Preprofessional courses of study are offered for the professions hereinafter listed.

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 nonscience courses. The following credits are normally required:

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

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:

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

Some schools require 9 credits in a foreign language and 3-6 credits of Quantitative Analysis.

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 6 credits in Speech and 3 credits in Political Science. A minimum of 147 credits with a grade point average of 2.5 or above is required.

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 for the fourth year. 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	
Chemistry 21-22-23	15	Mathematics 21	4
Biological Science 1-2-3	12	Chemistry 75, 76	6
English 1-2-3	9	Biological Science 7, 52-53	15
History 51, 52, 53	9	Religion	6
Religion	6	Education 51, 52, or 53	3
Physical Education	1½	Education 57, 58, or 59	3
THIRD YEAR		Education	
Chemistry 91-92, 93 or 111-112, 113	9-12	Literature or Speech	6
Religion	6	Physical Education or Medical Cadet Corps	1½
Physics	12	Electives	2
Chemistry 156	4	FOURTH YEAR	
Literature	3	At Portland Sanitarium and Hospital	
Electives	14-17		

Students majoring in Medical Technology must meet all degree and general education requirements except 9 credits in Applied Arts. During the third year the students must earn at least 30 credits upper division.

PHYSICAL THERAPY

The minimum requirements are completion of 93 credits including biological science 18, English 9, General Chemistry 9, physical education 3, psychology 9, religion 12, speech 6, United States History 9.

X-RAY TECHNICIAN

Forty-five credits are needed 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 physiology, mathematics, chemistry, physics, and typing should be included wherever possible.

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 premedical students.

PRE-VETERINARY

One year of college work may be applied to the curriculum of most schools of veterinary medicine.

PHARMACY

At least two years of general college work are required. The following should be included:

English	9	Botany	3
Public Speaking	3	Physiology	5
U. S. History	9	Bacteriology	5
Principles of Economics	9	Inorganic Chemistry	15
Mathematics	8	Quantitative Chemistry	5
Psychology	9	Organic Chemistry	10
Zoology	9		

PRE-NURSING

At least one year of college is required. Anatomy, Physiology, and Health, English, General Chemistry, History of Nursing, Microbiology, Physical Education, and Religion should be included.

NOTE: Most students choose the Bachelor of Science with a curriculum in Nursing listed in this bulletin under the section, School of Nursing. Write to Fredrick R. Hanson, Dean of the School of Nursing, College Place, Washington, for a bulletin of the School of Nursing and complete information.

PRACTICAL NURSE TRAINING. A twelve-month's vocational course is given at the Clinical Division of the School of Nursing in Portland. Upon completion of this course, a certificate is awarded. Those students who wish to complete a degree at the College may receive 17 credits for this work.



DEPARTMENTS OF INSTRUCTION

DEPARTMENTS OF INSTRUCTION

THIS section contains a list of all courses offered in the College. The departments are arranged in alphabetical order. The curricula and courses offered in the School of Theology and the School of Nursing begin on pages 119 and 123 respectively.

Courses numbered 1-49 are normally taken by freshmen; those from 50-99 are normally taken by sophomores; those from 100-199 by juniors and seniors; and those 200 and above by graduate students. Seniors with exceptional scholarship may be admitted to graduate courses on approval of the instructor.

The descriptions of courses in each department include: (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; (6) the days and the hour the class meets.

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; M.W.F., 11:10," means three credits each quarter, or a total of nine credits for the year, the class meeting Monday, Wednesday, Friday at the 11:10 a.m. period.

Two or three numbers connected with hyphens indicate courses which must be completed in their entirety. Only upon permission of the instructor 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 * are not given in 1958-1959.

ART

MR. TEMPLE

The aim of the Art department is to cultivate an appreciation of the various forms of art and to help students develop their creative abilities.

MINOR REQUIREMENTS:

A minimum of 27 credits including courses 91, 92, 93; 121, 122, 123; and 141, 142, 143. Arts and Crafts, P. E. 124, 125, 126; Furniture Design, I. E. 114; Photography I, I. E. 33, Photography II, I. E. 103; and Textile Painting and Related Arts, H. Econ. 89 are recommended and may be included in the minor.

21, 22, 23. 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; T.Th., 7:30 and arranged.

41, 42, 43. DRAWING. A representational type of drawing fundamental to all the visual arts, experienced in the pictorial forms of still life, landscape, and portraiture is a valuable basis for any further art study as well as a satisfying end in itself. One credit; autumn, winter, spring; M.W.F., 7:30.

*81, 82, 83. **SCULPTURE.** The study of form in three dimensions worked out in various materials such as wood, plaster, and paper. One credit; autumn, winter, spring; T.Th., 10:15 and arranged.

91, 92, 93. HISTORY AND APPRECIATION OF ART. Study of the great periods in the history of art with examples of the ideals and methods of the masters and their practical application to the needs of today. Two credits; autumn, winter, spring; T.Th., 8:25.

121, 122, 123. PAINTING. To develop and promote the aesthetic enjoyment and relaxation which are found in painting, whether the media be pastel, water color, or oil. One credit; autumn, winter, spring; Th., 2:00-5:00.

141, 142, 143. COMMERCIAL ART. Our modern need to "Tell and Sell" is the study of illustration and production planning for such subjects as advertisements, book pages, posters and displays. Three credits; autumn, winter, spring; M.W.F., 10:15. Laboratory arranged.

147, 148, 149. DESIGN. An intensified study of design elements and their application to completed art forms. Three credits; autumn, winter, spring; M.W.F., 11:10.

191, 192, 193. SPECIAL PROBLEMS IN ART. Individual student projects under the direction of the department. One credit; autumn, winter, spring; arranged.

*Not offered 1958-1959.

BIOLOGICAL SCIENCES

MR. BOOTH, MR. ASHLEY, MR. COFFIN, MISS EMERY, MR. RIGBY

The department offers a major in biology and zoology and minors in biology, botany, or zoology. Courses are offered on the main campus, at the Biological Station, and in the Field School of Biology. Graduate work leading toward 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 two laboratories, cottages, dining hall and kitchen, motor boats, seines, dredges, and 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 usually scheduled once every two years during the winter quarter. In recent years the Field School has been held in various sections of Mexico.

BIOLOGY MAJOR REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

Elementary Zoology	1-2-3	12
Elementary Botany	15-16	8
Systematic Botany	106	4
Paleontology, Genetics	157, 158	5
Philosophy of Science	159	2
Seminar	161-162-163	1½
History of Biology	191	2
Methods in Research	195	2
Electives		14
		50½

Majors in biology must complete a minimum of 25 upper division credits and must attend at least one summer term at the Biological Station. Minor fields may not be chosen in botany or zoology.

ZOOLOGY MAJOR REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

Elementary Zoology	1-2-3	12
Paleontology, Genetics	157, 158	5
Philosophy of Science	159	2
Seminar	161-162-163	1½
History of Biology	191	2
Methods in Research	195	2
Electives		21
		45½

Majors in zoology must complete a minimum of 25 upper division credits and must attend at least one summer term at the Biological Station. Elementary Botany 15-16 is also required in addition to the above.

MAJOR REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE:

Candidates for this degree must complete a total of 90 credits in science or mathematics. Two of the elementary courses in Chemistry, Mathematics, or Physics are required. The major requirements for biology or Zoology are the same as those listed for the Bachelor of Arts degree.

MINOR REQUIREMENTS IN ZOOLOGY:

A minimum of 27 credits including courses 1-2-3 and 12 upper division credits.

MINOR REQUIREMENTS IN BOTANY:

A minimum of 27 credits including 12 upper division. Courses 15-16, 106, 164-165 are required.

MINOR REQUIREMENTS IN BIOLOGY:

A minimum of 27 credits including courses 1-2-3 and 15-16 and 7 upper division credits.

1-2-3. ELEMENTARY ZOOLOGY. A study of the principles of zoology including anatomy, physiology, cytology, histology, genetics, and embryology. A general survey of the entire animal kingdom from the protozoa to the vertebrates. Four credits; autumn, winter, spring; Sec. A, M.W.F., 7:30; Sec. B, M.W.F., 8:25. Laboratory, Sec. A, S., 8:00-11:00; Sec. B, M., 2:00-5:00; Sec. C, W., 2:00-5:00; Sec. D., Th., 2:00-5:00.

4. SURVEY OF ZOOLOGY. A general survey of the animal kingdom emphasizing the principles of biology, and the outdoor methods for the study of animals. Four credits; autumn; M.W.F., 10:15. Laboratory, Th., 2:00-5:00.

7. MICROBIOLOGY. The nature of bacteria and disease-producing organisms with their life habits and methods of reproduction. The relation of these organisms to disease in the human body. Five credits; autumn; Sec. A, M.-Th., 10:15; Sec. B. M.-Th., 11:10. Laboratory, Sec. A, M., 2:00-5:00; Sec. B, T., 2:00-5:00; Sec. C, Th., 2:00-5:00; Sec. D, S., 8:00-11:00.

15-16. ELEMENTARY BOTANY. A general survey of the plant kingdom with emphasis on morphology, life histories, and development. Four credits; winter, spring; M.W.F., 7:30. Laboratory, Sec. A, S., 2:00-5:00; Sec. B, W., 2:00-5:00.

19. SURVEY OF BOTANY. A general survey of the plant kingdom emphasizing the principles of biology, and outdoor methods for the study of plants. Four credits; spring; M.W.F., 10:15. Laboratory, Th., 2:00-5:00.

52-53. ANATOMY, PHYSIOLOGY, AND HEALTH. This course is designed for those who will complete their nursing curriculum at Portland. A general survey of human anatomy and physiology. Health Principles will be integrated in this course. Five credits; winter, spring; Sec. A, M.-Th., 10:15; Sec. B, M-Th., 11:10. Laboratory, Sec. A, S., 8:00-11:00; Sec. B, M., 2:00-5:00; Sec. C, T., 2:00-5:00; Sec. D, W., 2:00-5:00; Sec. E, Th., 2:00-5:00.

85. **HUMAN PHYSIOLOGY.** A study of the functions of the human body, with practical application of this knowledge to everyday living. Three credits; winter; M.W.F., 8:25.

Courses 1-2-3 or 4 are prerequisite for all upper division zoology courses.

Courses 15-16 or 19 are prerequisite for all upper division botany courses.

101. **VERTEBRATE ANATOMY.** A study of the comparative anatomy of the various classes of vertebrates. Detailed dissections of the shark and of the cat are made in the laboratory. Five credits; autumn; M.W.F., 8:25. Laboratory, M.Th., 2:00-5:00.

102. **VERTEBRATE EMBRYOLOGY.** A detailed study of the embryology of the frog, chick, and pig, with emphasis on their relation to human embryology. Five credits; winter; M.W.F., 7:30. Laboratory, Sec. A, S., 9:00-12:00, 2:00-5:00; Sec. B, T.Th., 2:00-5:00.

103. **VERTEBRATE PHYSIOLOGY.** A course designed to acquaint the biology or zoology major with the principles of physiology. Several vertebrate animals including the human are studied and compared. Prerequisite: 101. Four credits; spring; T.Th., 7:30; W., 1:00. Laboratory, W., 2:00-5:00.

106. **SYSTEMATIC BOTANY.** Principles of classification of plants with emphasis on the spermatophytes. Four credits; summer (WWC Biological station).

122. **GENERAL ENTOMOLOGY.** A study of insect morphology, ecology, and the general principles of classification. Three credits; winter; M.W., 11:10. Laboratory, W., 2:00-5:00.

*151. **MAMMALOGY.** A systematic study of mammals with emphasis on taxonomy and geographical distribution. Four credits; autumn, M.W., 8:25. Laboratory, arranged.

*153. **ORNITHOLOGY.** A systematic study of native birds of North America, with emphasis on identification, migration, geographical distribution, habits and life histories. Four credits; spring; T.Th., 8:25. Laboratory, arranged.

156. **SYSTEMATIC ENTOMOLOGY.** A systematic study of insects. Four credits; spring; M.W., 11:10. Laboratory, arranged.

157. **PALEONTOLOGY.** A study of plant and animal fossils, with a survey of the principles of geology. Two credits; autumn; T.Th., 11:10.

158. **GENETICS.** A study of the principles of inheritance in plants and animals, especially man. Three credits; winter; M.W.F., 10:15.

159. **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. Two credits; spring; T.Th., 11:10.

161-162-163. **SEMINAR.** A study of modern trends in biology; of current biological literature; presentation of scientific papers; group discussion of biological problems. One-half credit; autumn, winter, spring; arranged.

*Not offered 1958-1959.

164-165. **MORPHOLOGY OF PLANTS.** Detailed studies of the type forms of the main plant groups. Autumn quarter: Thallophytes and Bryophytes; winter quarter: Pteridophytes and Spermatophytes. Four credits; autumn, winter; T.Th., 10:15. Laboratory, arranged.

*169. **FRESH WATER BIOLOGY.** A systematic study of the animals and plants found in fresh water lakes and streams. Field work includes trips to a number of lakes and streams. Four credits; spring; T.Th., 10:15. Laboratory, W., 2:00-5:00 and arranged.

171. **VERTEBRATE HISTOLOGY.** The microscopic anatomy of vertebrate cells, tissues and organs including reference to their functions. Four credits; autumn; M.W., 1:00. Laboratory, M.W., 2:00-5:00.

172. **ANIMAL MICROTECHNIQUE.** A course designed to cover the important methods of making microscope slides of animal tissues. Three credits; winter; W., 1:00. Laboratory, W., 2:00-5:00 and arranged.

173. **PLANT MICROTECHNIQUE.** A course designed to cover the important methods of technique in making microscope slides of plant tissues. Three credits; spring; W., 1:00. Laboratory, W., 2:00-5:00 and arranged.

177-178. **PARASITOLOGY.** A systematic study of the morphology, life cycle, and the medical aspects of the protozoan, anthropod, and worm parasites of the vertebrates with more emphasis on human parasitology. Three credits; autumn, winter; T.Th., 8:25. Laboratory, T., 2:00-5:00.

181. **MARINE INVERTEBRATES.** A systematic study of the invertebrate animals of Puget Sound with a survey of marine invertebrates from other areas. A review of ecological zones of Puget Sound will be included in the laboratory work. Four credits; summer (WWC Biological Station).

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

183. **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).

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

191. **HISTORY OF BIOLOGY.** A survey of the history of biological work from the Greek period to the present. Two credits; autumn; T.Th., 1:00.

192. **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: 182. Four credits; summer (WWC Biological Station).

195. **METHODS IN RESEARCH.** A study of the entire field 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. Two credits; winter; T.Th., 1:00.

*Not offered 1958-1959.

199. **SPECIAL PROBLEMS IN BIOLOGICAL SCIENCE.** Individual work to be carried on under the supervision of the instructor. Time and credit arranged.

201. **RESEARCH IN ZOOLOGY.** Individual work in a topic of original research carried out under one of the instructors. A report must be prepared for publication before credit will be allowed. Credit arranged.

202. **RESEARCH IN BOTANY.** Individual work in a topic of original research carried out under one of the instructors. A report must be prepared for publication before credit will be allowed. Credit arranged.

204-205-206. **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; arranged.

207. **GENETICS AND EVOLUTION.** Advanced study and criticism of evolution in all its phases; criticism of current books on evolution; study of major theories and hypotheses. Prerequisite: 158, 159. Three credits; autumn; M.W.F., 11:10.

211. **PLANT ECOLOGY.** The relationships between plants and their environment, factors controlling distribution, and detailed study of biotic provinces throughout North America, including adequate field work and experimental methods. Prerequisite: 106. Four credits, summer (WWC Biological Station).

215. **ADVANCED MARINE INVERTEBRATES.** Detailed study of the invertebrate phyla with emphasis on the lesser groups not included in course 181, including experimental methods and embryology of marine animals. Prerequisite: 181. Two or more credits, summer (WWC Biological Station).

229. **PARASITES OF MARINE ANIMALS.** Original work with parasites of all groups of marine animals, including experimental methods and embryology. Prerequisite: 177-178, 181, 182. Two or more credits; summer (WWC Biological Station).

230. **ADVANCED PARASITOLOGY.** Original work with parasites of all forms of animal life, including determination of species, experimental methods and life histories. Prerequisite: 153, 156, 177-178, 182. Two or more credits; any quarter.

235. **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. Five to nine credits.

BUSINESS ADMINISTRATION

MR. MEHLING, MR. SLOOP, MISS WALKER

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, and business and industry.

MAJOR REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

Principles of Accounting	14-15, 16	9
Principles of Economics	91-92-93	9
Business Law	61-62-63	6
Intermediate Accounting	71-72-73	9
Upper division electives		21
		54

MAJOR REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE:

Principles of Accounting	14-15, 16	9
Principles of Economics	91-92-93	9
Business Law	61-62-63	6
Intermediate Accounting	71-72-73	9
Cost Accounting	141-142-143	6
Upper division electives		32
		71

Students majoring in Business Administration must demonstrate proficiency in typing. Art courses 21 and 22 are highly recommended.

MINOR REQUIREMENTS:

A minimum of 27 credits including courses 14-15, 16, 91-92-93, and 9 upper division credits.

14-15, 16. PRINCIPLES OF ACCOUNTING. Introduction to: accounting; books of original entry; ledgers; statements of condition and of operations; controlling accounts; sole proprietorships, partnerships, and corporations. No. 14 and 15 prerequisite to 16. Three credits; autumn, winter, spring; M.W.F., 7:30.

51-52-53 SECRETARIAL ACCOUNTING. An accounting course designed to acquaint the secretarial student with basic accounting concepts. (Does not apply on Business Administration major or minor.) Two credits; autumn, winter, spring; T.Th., 8:25.

61-62-63. 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; T.Th., 8:25.

71-72-73. 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: 14-15, 16. Three credits; autumn, winter, spring; M.W.F., 8:25.

81, 82, or 83. OFFICE MACHINES II. Instruction in the use of computing and adding machines. One credit maximum; autumn, winter, or spring; arranged.

91-92-93. 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; M.W.F., 11:10.

98. MACHINE ACCOUNTING. Training in the operation of the National Bookkeeping machines as applied to various accounting systems. Prerequisite: 14-15, 16 or 51-52-53. One credit; winter; arranged.

***121, 122, 123. 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; T.Th., 11:10.

131. PRINCIPLES OF INSURANCE. A study of insurance contracts, underwriting organizations, and insurance representation and procedures. Three credits; autumn; M.W.F., 7:30.

136. REAL ESTATE. A survey course in the basic principles and problems of real estate management and appraisal. Three credits; spring; M.W.F., 7:30.

***141-142-143. COST ACCOUNTING.** Theory and practice in keeping cost records for manufacturing concerns. Job order, process, and standard cost systems. Prerequisite: 14-15, 16. Two credits; autumn, winter, spring; T.Th., 7:30.

145. ACCOUNTING SYSTEMS. A study of diversified accounting systems, system construction and installation procedures. Prerequisite: 71-72-73. Three credits; winter; M.W.F., 10:15.

***161. BUSINESS MANAGEMENT.** A study of the internal organization of the business enterprise; problems of planning, coordination and production-management. Three credits; autumn; M.W.F., 10:15.

***163. BUSINESS FINANCE.** A study of the fundamental principles of financial policy in the organization and management of corporate enterprises. Three credits; spring; M.W.F., 10:15.

***165. PERSONNEL MANAGEMENT.** A survey of the human relations problems found in industry today. Three credits; winter; M.W.F., 10:15.

*Not offered 1958-1959.

172. **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; M.W.F., 11:10.

174. **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; M.W.F., 10:15.

176. **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: 71-72-73 or consent. Three credits; spring; M.W.F., 10:15.

177, 178, 179. **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; arranged.

181-182-183. **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. Two credits; autumn, winter, spring; T.Th., 10:15.

190. **SPECIAL PROBLEMS IN BUSINESS ADMINISTRATION.** Independent study of selected topics in some field of business or economics for departmental majors. One to five credits.

196. **SEMINAR.** Individual study of problems in the field of business or economics. Open only to majors in business administration. Two credits; offered on sufficient demand.

CHEMISTRY

MR. BOWERS, MR. JONES, MR. SHANKEL, MR. THURSTON

MAJOR REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

Inorganic	15
Organic and Biological	12
Analytical	9
Physical	8
Electives	4
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	48

A minimum of 21 upper division credits is required. Any minor may be chosen. Laboratory work must be concurrent with theory. The following courses are also required:

Mathematics 21; Physics 41, 42, 43 or 51, 52, 53.

MAJOR REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE:

Inorganic 21-22-23	15
Organic 111-112, 113	12
Analytical 75, 76; 131, 132	12
Physical 151-152, 153	12
Special problems 182 or 183	2-3
Electives	4-10
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Minimum	60

Laboratory work must be concurrent with theory. A double minor in mathematics and physics is recommended. Regardless of the minor the following are required:

Mathematics 21, 22, 23, 51-52-53.
Physics 51, 52, 53.

MINOR REQUIREMENTS:

A minimum of 27 credits including 3 credits of upper division courses. Courses 21-22-23 and 111-112 or 91-92, 93 are required.

1-2-3. GENERAL CHEMISTRY. An introductory course in chemistry designed to meet the basic science requirements for graduation. Does not apply on a major or minor. Two or three credits; autumn, winter, spring, Sec. A, M.W.F., 7:30; Sec. B, M.W., 7:30; Sec. C, M.W., 8:25.

1A-2A-3A. GENERAL CHEMISTRY LABORATORY. This course accompanies Chemistry 1-2-3, and includes typical laboratory preparations and experiments. One credit; autumn, winter, spring; Sec. A, S., 7:30-10:00; Sec. B, S., 9:30-12:00; Sec. C, T., 7:30-10:00.

21-22-23. 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. Three credits; autumn, winter, spring; Sec. A, M.W.F., 10:15; Sec. B, M.W.F., 11:10.

21A-22A-23A. INORGANIC CHEMISTRY QUIZ SECTIONS AND LABORATORY. Two credits; autumn, winter, spring; Sec. A, M., 1:00-6:00; Sec. B, T., 1:00-6:00; Sec. C, W., 1:00-6:00; Sec. D, Th., 1:00-6:00; Sec. E, S., 1:00-6:00.

74. QUANTITATIVE ANALYSIS. Introduction to the principles of quantitative analysis illustrated with representative gravimetric and volumetric determinations. Does not apply on a major. Prerequisite: 21-22-23 and Mathematics 21. Three credits; autumn; T.Th., 10:15. Laboratory, Sec. A, W., 1:00-5:00; Sec. B, Th., 1:00-5:00.

75. ELEMENTARY GRAVIMETRIC ANALYSIS. An introduction to the theory of analytical chemistry which includes procedures for the gravimetric determination of various ions. Prerequisite: 21-22-23 and Mathematics 21. Three credits; winter; T.Th., 10:15. Laboratory, Sec. A, W., 1:00-5:00; Sec. B, Th., 1:00-5:00.

76. ELEMENTARY VOLUMETRIC ANALYSIS. A continuation of course 75 with emphasis on volumetric procedures and laboratory practice

in titration methods. Prerequisite: 21-22-23 and Mathematics 21. Three credits; spring; T.Th., 10:15. Laboratory, Sec. A, W., 1:00-5:00; Sec. B, Th., 1:00-5:00.

91-92, 93. AN INTRODUCTION TO ORGANIC CHEMISTRY. A short course designed to furnish a basis for the understanding of structural chemistry, systems, and nomenclature, and organic chemical reactions. Open to students in home economics, dietetics, pre dental, and certain other preprofessional courses. Prerequisite: 1-2-3 or 21-22-23. Two credits; autumn, winter, spring; T.Th., 8:25.

91A-92A, 93A. INTRODUCTION TO ORGANIC CHEMISTRY LABORATORY. A laboratory course to accompany 91-92, 93. One credit; autumn, winter, spring; Th., 2:00-5:00.

111-112, 113. ELEMENTARY ORGANIC CHEMISTRY. A study of the preparations, reactions, and constitution of the aliphatic and aromatic compounds of carbon. Prerequisite: 21-22-23. Three credits; autumn, winter, spring; M.W.F., 11:10.

111A-112A, 113A. EXPERIMENTAL ORGANIC CHEMISTRY. A laboratory course to accompany 111-112, 113. One credit; autumn, winter, spring; Sec. A, T., 2:00-5:00; Sec. B, W., 2:00-5:00.

***121. ADVANCED INORGANIC CHEMISTRY.** A more detailed study of inorganic substances with emphasis on the metals, their preparation and uses. Prerequisite: 21-22-23. Two credits; autumn; arranged.

131. ADVANCED GRAVIMETRIC ANALYSIS. A study of typical gravimetric methods of analysis and their equilibria. Complex and natural occurring materials are analyzed. Prerequisite: 75, 76. Three credits; autumn; F., 8:25. Laboratory, T.Th., 1:00-5:00.

132. ADVANCED VOLUMETRIC ANALYSIS. A study of typical volumetric methods of analysis and their equilibria. Prerequisite: 75, 76. Three credits; winter; F., 8:25. Laboratory, T.Th., 1:00-5:00.

133. INSTRUMENTAL ANALYSIS. Study of various instruments used in chemical analysis. Prerequisite: 75, 76. Three credits; spring; F., 8:25. Laboratory, arranged.

151-152, 153. PHYSICAL CHEMISTRY. An introductory course in theoretical chemistry and electrochemistry. Prerequisite: Physics 41, 42, 43 or 51, 52, 53, Chemistry 75, 76, and Mathematics 21, 22, 23. Three credits; autumn, winter, spring; M.W.F., 8:25.

151A-152A, 153A. PRACTICAL PHYSICAL CHEMISTRY. This course provides a series of experiments covering the fundamental topics in theoretical chemistry. Experiments involve the various physical properties of matter and their constants. The latter part of the course deals with electrochemistry. Four hours laboratory; one credit; autumn, winter, spring; M. 1:00-5:00.

156. BIOCHEMISTRY. A study of the chemistry of foods, digestion and body metabolism. Prerequisite: 111-112 or 91-92, 93. Three credits; spring; M.W.F., 10:15.

156A. BIOCHEMISTRY LABORATORY. Experimental work on foods, digestive processes and their products to accompany 156. One credit; spring; M., 1:00-5:00.

*Not offered 1958-1959.

164. ORGANIC SYNTHESIS. The preparation of various aliphatic and aromatic compounds involving representative procedures employed in synthetic work. Three credits; autumn; conference to be arranged; M.W. or T.Th., 1:00-5:00.

165. INORGANIC SYNTHESIS. The course includes the preparation of a variety of inorganic compounds to illustrate standard methods of procedure employed in inorganic preparations. One recitation and six to eight hours of laboratory per week. Three credits; winter; M.W. or T.Th., 1:00-5:00.

166. 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; M.W. or T.Th., 1:00-5:00.

***168. ADVANCED ORGANIC CHEMISTRY.** A study of the current theories in the field of aliphatic and aromatic chemistry. Prerequisite: 111-112, 113. Two credits; winter; arranged.

182 or 183. SPECIAL PROBLEMS. Four to ten hours laboratory work on assigned investigations. One to three credits; winter or spring; arranged.

***193. HISTORY OF CHEMISTRY.** Two credits; spring; T.Th., 11:10.

*Not offered 1958-1959.

EDUCATION

MR. BULL, MR. FOSTER, MR. MEIER, MISS SEARLE, MR. SILVER

The chief objective of the department is to provide a teacher education program that will enable graduates to render superior service in private or public schools. Courses leading to the Bachelor of Arts and the Master of Arts degrees with majors in education are offered. For specific information concerning requirements for the master's degree see the bulletin of the Graduate Division. Minors in elementary and secondary education are also offered.

Students planning on teaching in the state of Washington should meet both denominational and state certification requirements. Those wishing to teach in other states are urged to inform themselves concerning specific certification requirements.

The teacher education program hereinafter outlined is designed to assure the broad and professional education needed for creative teaching. Courses and supervised experiences are planned to give an understanding of both elementary and secondary education as well as preparation to teach at one level. The program is approved by the Washington State Board of Education and qualifies the graduate for the Provisional General Certificate and, after one successful year of teaching and a fifth year of teacher education, the Standard General Certificate. The program, inaugurated in 1951, has three phases.

PHASE 1

A four-year college program preparing for elementary and secondary teaching with a minimum of 192 credits.

MAJOR REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

1. General Education—60 credits

English	18
(Freshman Composition 9, Speech 6, Literature 3)	
Science	12
Social Studies	15
(U. S. History 9, Washington History and Government 3, World Geography 3)	
Health and Physical Education	7
Music	4-6
General Psychology	3
Art	2-4
	60

All teacher education students must successfully complete an examination in Basic Mathematics or register for the course Arithmetic for College Students.

2. Broad Areas of Concentration—60 credits

A. Five areas of concentration are provided from which the prospective teacher will select his field of preference:

- (1) Health and Physical Education.
- (2) Language Arts: Speech, Writing, Literature, Foreign Languages.
- (3) Social Studies: History, Sociology, Political Science, Economics, and Geography.
- (4) Sciences and Mathematics: Biology and Physical Sciences, and Mathematics.
- (5) Fine and Applied Arts: Art, Music, Home Economics, Industrial Education, Business Administration, and Secretarial Science.

B. Program Options: One or two broad areas are recommended. Selection of the area or areas and courses to be included is to be made in counsel with the head of the department of education, who recommends the student for certification.

3. Professional Education—40 credits

✓ Introduction to Education	3
✓ Curriculum Materials and Methods	11
✓ School Administration	3
Human Growth and Development	4
Educational Evaluation and Guidance	3
✓ Washington State Manual	1
Professional Laboratory Experiences	15

40

4. Electives—The number of electives will vary because of the need to meet general college graduation requirements.

PHASE II

INITIAL TEACHING EXPERIENCE

The beginning teacher is issued the Provisional General Certificate which is valid for one year and may be renewed annually four times. After the first year of teaching, a program of study for the fifth year of teacher education must be outlined. At least 12 credits of this program must be completed after the beginning of the first year of teaching and before the beginning of the third year. A progress report is required for the third and fourth renewals.

PHASE III

FIFTH YEAR OF TEACHER EDUCATION

A fifth year of study with a minimum of 45 credits, planned to meet personal needs as evidenced by the first year of teaching, completes the requirements for the Standard General Certificate. This may be taken during a regular college year or during summer sessions. At least one half of the 45 credits must be in courses numbered 100 or above, and not more than 12 credits of extension or correspondence study may be approved as a part of the fifth year program. By careful planning the requirements for a master's degree can be completed during this phase. The specific requirements for the master's degree are outlined in the bulletin of the Graduate Division.

The department also offers minors in elementary or secondary education. These minors are for those who plan to teach in the educational system of the Seventh-day Adventist church outside the state of Washington and meet denominational certification requirements only. Students should also acquaint themselves with the teacher certification requirements in the states in which they expect to teach.

MINOR REQUIREMENTS—ELEMENTARY EDUCATION

A total of 39 credits including 30 in elementary education and 9 upper division credits. The following must be included:

Introduction to Education	3
Psychology and/or Human Growth and Development	3-4
Elementary School Administration	3
Teaching of Reading and other Elementary Methods	11-12
Directed Teaching and Observation—Elementary	8-9

MINOR REQUIREMENTS—SECONDARY EDUCATION

A total of 30 credits in general and secondary education including the following:

Introduction to Education	3
Psychology and/or Human Growth and Development	3-4
Curriculum and Secondary Methods	5
Directed Teaching and Observation—Secondary	6-9

For complete information concerning denominational certification requirements consult with members of the education department.

GENERAL COURSES

51, 52, or 53. **INTRODUCTION TO EDUCATION.** A study of the underlying principles of Christian education, and an orientation course designed to acquaint the student with the objectives, principles, philosophy, status, organization, and achievement of education in the United States. Three credits maximum; autumn, Sec. A, M.W.F., 10:15; Sec. B, M.W.F., 11:10; winter, M.W.F., 10:15; spring, Sec. A, M.W.F., 8:25; Sec. B, M.W.F., 11:10.

55 or 56. **INTRODUCTION TO TEACHING.** Initial laboratory experiences on the elementary level for all prospective teachers. Three credits; winter, M.W.F., 11:10; spring, M.W.F., 1:00.

57, 58, or 59. **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; Sec. A, M.W.F., 8:25; Sec. B, M.W.F., 10:15; Sec. C, M.W.F., 11:10; winter, Sec. A, M.W.F., 10:15; Sec. B, M.W.F., 11:10; spring, M.W.F., 10:15.

61, 62, or 63. **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, M.W.F., 10:15; winter, M.W.F., 11:10; spring, M.W.F., 10:15.

112. **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. Four credits; winter; M.Th., 7:30.

118. **EDUCATIONAL EVALUATION.** Designed to acquaint the student with the latest and best instruments for appraising the results of growth in the various aspects of abilities, achievement and personality. Opportunity will be provided for the practical application and interpretation of the results obtained by the use of various tests and scales. Practice is given in the construction and use of teacher-made tests. Prerequisite: Psychology and Basic Mathematics or equivalent. Three credits; winter; M.W.F., 8:25.

129. **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; arranged.

143. **PRINCIPLES OF SCHOOL ADMINISTRATION.** Organization, administration, and supervision in elementary and secondary schools. Three credits; spring, M.W.F., 10:15.

166. **INTRODUCTION TO COUNSELING.** Consideration of effective techniques of counseling individuals in the solution of personal problems of the school, family, church, and community. Prerequisite: General Psychology. Two credits; spring; T.Th., 8:25.

171 or 173. **PRINCIPLES OF AUDIO-VISUAL EDUCATION.** A sur-

vey 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; autumn or spring, T.Th., 1:00. Laboratory, arranged.

ELEMENTARY EDUCATION

11. SCHOOL ARTS. 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 appreciation. Three credits; autumn; T.Th., 7:30. Laboratory, T., 1:00-4:00.

18. TEACHING OF BIBLE. Content and methods of teaching of Bible in the elementary school. Two credits; summer; arranged.

21. CLASSROOM MANAGEMENT. Classroom organization and management in the elementary school. Three credits; autumn, M.W.F., 11:10.

42. STORY TELLING. A course designed to complete the requirements for the story telling vocational honor, how to tell stories, what stories to tell, and experience in telling stories. One credit; winter; T., 7:30.

71. TEACHING OF READING. Objectives and methods in the teaching of reading in the primary grades. Three credits; autumn; M.W.F., 10:15.

72. TEACHING OF SOCIAL STUDIES. Materials, objectives, and methods used in teaching social studies in the grades, chosen from the fields of geography, history, and civics. Three credits; winter; M.W.F., 10:15.

73. TEACHING OF LANGUAGE ARTS. A course giving the teaching procedures in the related fields of the language arts, literature, grammar, spelling, and writing. Three credits; spring; M.W.F., 10:15.

101, 102, 103. DIRECTED TEACHING. Professional laboratory experiences on the elementary level including directed teaching. Prerequisite: a background of teacher education courses and a grade-point average of at least 2.00. Three to twelve credits; autumn, winter, spring; M., 4:00 and arranged.

105. CHILD LITERATURE. Survey of children's literature for the elementary school level. Three credits; winter; M.W.F., 7:30.

115. TEACHING OF ARITHMETIC. Methods of teaching arithmetic in the elementary school. Three credits; winter; M.W.F., 1:00.

116. TEACHING OF NATURE STUDY. Content, methods, materials, and units used in the teaching of nature study. Three credits; spring; M.W.F., 11:10.

124. CURRICULUM METHODS AND MATERIALS. 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 general methods that are used in teaching the various types of subject matter. Three credits; autumn; M.W.F., 8:25.

133. TEACHING OF READING II. Diagnostic and remedial teaching of reading for intermediate and upper grades of the elementary school. Three credits; spring; M.W.F., 8:25.

136. WASHINGTON STATE MANUAL. Designed for students in the last year to acquaint them with the chief aspects of the Washington system of public schools and the Washington state laws. One credit; spring; T., 1:00.

SECONDARY EDUCATION

121. METHODS AND CURRICULUM OF SECONDARY SCHOOLS.

The evolution, scope, and methods of secondary education. Objectives and attainable goals for secondary schools, and the several curriculum offerings. Three credits; autumn; M.W.F., 8:25.

147, 148, 149. DIRECTED TEACHING. Professional laboratory experiences on the secondary level including directed teaching. Prerequisite: a background of teacher education courses and a grade-point average of at least 2.00. Three to twelve credits; autumn, winter, spring; arranged.

149Ind. METHODS OF TEACHING INDUSTRIAL ARTS. See Industrial Education.

*151. SCIENCE IN THE SECONDARY SCHOOL. Methods and techniques of teaching science on the secondary school level. Two credits; arranged.

154. SOCIAL STUDIES IN THE SECONDARY SCHOOL. Methods and techniques of teaching the social studies on the secondary school level. Two credits; autumn; T.Th., 8:25.

159. LANGUAGE ARTS IN THE SECONDARY SCHOOL. Methods and techniques of teaching English and related subjects on the secondary school level. Two credits; spring; T.Th., 8:25.

*161. MATHEMATICS IN THE SECONDARY SCHOOL. Methods and techniques of teaching mathematics on the secondary school level. Two credits; arranged.

197H Econ. METHODS OF TEACHING HOME ECONOMICS. See Home Economics.

197PE. METHODS OF TEACHING PHYSICAL EDUCATION. See Physical Education.

197Sh. METHODS OF TEACHING SHORTHAND. See Secretarial Science.

197Typ. METHODS OF TEACHING TYPEWRITING. See Secretarial Science.

GRADUATE COURSES

208. SPECIAL PROBLEMS IN GRADES 1-8. A study of teaching techniques in a schoolroom situation; an analysis of special problems in the various areas of the elementary school. Registration limited. Three credits; summer; arranged.

221. PSYCHOLOGY OF LEARNING. The course includes analysis of the mechanisms involved in the learning process. The physiological and psychological basis for functional learning is discussed, and the experimental evidence supporting psychological hypotheses is reviewed. Three credits; autumn; M.W., 4:30-6:00.

222. PHILOSOPHY OF EDUCATION. A study of the basic principles and development of true education resulting in the formulation of aims and objectives of education for Christian society. Three credits; winter; M.W., 4:30-6:00.

*Not offered 1958-1959.

223. HISTORY OF THE PROBLEMS OF EDUCATION. A course for advanced students dealing with problems of modern education and their historical background. Textbook, readings, discussion, term paper. Three credits; spring; M.W., 4:30-6:00.

244. HISTORY OF EDUCATIONAL THOUGHT. Theories and practices of great educators in ancient and modern times. Interpretation of educational thought from a Christian philosophical viewpoint. Evaluation of educational thought in western civilization. Two credits; autumn; T.Th., 5:00.

249. 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. Two credits; Spring; T.Th., 5:00.

251. SCHOOL ADMINISTRATION AND SUPERVISION. A course which presupposes some familiarity with problems of administration and supervision. An intensive study of more important problems of organization and administration in secondary and elementary education. Three credits; autumn; M.W.F., 7:30.

252. 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; winter; M.W.F., 7:30.

256. 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; M.W.F., 7:30.

262. SEMINAR. Methods of research applied to current educational issues and trends in America. Two credits; winter; T.Th., 5:00.

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

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

280. 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.

290. THESIS. Five to nine credits.

ENGINEERING

MR. CROSS, MR. BATTENBURG, MR. HARTER, MR. LARSON, MR. MASDEN

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, which involves the application of mathematics and the sciences to the design and construction of machines and structures for the benefit of mankind.

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

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

CIVIL ENGINEERING

FIRST YEAR		SECOND YEAR	
	CREDITS		CREDITS
Religion	6	Religion	6
Freshman Composition	9	Introductory Physics	12
College Algebra	4	Calculus	12
Trigonometry	4	Engineering Mechanics	8
Analytical Geometry	4	Mechanics of Materials	4
Inorganic Chemistry	15	Surveying	6
Engineering Drawing	9	Curves and Earthworks	3
Physical Education or M.C.C.	1½	Physical Education	1½
	—		—
	52½		52½

THIRD YEAR**FOURTH YEAR**

	CREDITS		CREDITS
Religion	6	Religion	6
Structural Design	9	Engineering Administration	3
Fluid Mechanics	4	Contracts and Specifications	3
Engineering Thermodynamics	4	Foundations	3
Highways	3	Advanced Structural Design	15
Engineering Materials	6	Water Supply and Sewage	9
Water Power	5	Electives	15
Soil Mechanics	3		
Differential Equations	8		
Structural Analysis	4		
	—		
	52		

ELECTRICAL ENGINEERING**FIRST YEAR****SECOND YEAR**

	CREDITS		CREDITS
Religion	6	Religion	6
Freshman Composition	9	Introductory Physics	12
College Algebra	4	Calculus	12
Trigonometry	4	Engineering Mechanics	8
Analytical Geometry	4	Mechanics of Materials	4
Inorganic Chemistry	15	Electric & Magnetic Circuits	12
Engineering Drawing	9		—
Physical Education or M.C.C.	1½		54
	—		
	52½		

THIRD YEAR**FOURTH YEAR**

	CREDITS		CREDITS
Religion	6	Religion	6
Differential Equations	8	Engineering Materials	6
Advanced Calculus	4	Fields and Waves	5
Mechanism	4	Transmission Lines	5
Fluid Mechanics	4	Transients	5
Engineering Thermodynamics	4	Radio & Communications	12
DC-AC Machines	12	Speech	4
Electronics	12	Administration	3
—	—	Nuclear Physics	6
	54	Physical Education	1½
	—		
			53½

MECHANICAL ENGINEERING

FIRST YEAR		SECOND YEAR	
	CREDITS		CREDITS
Religion	6	Religion	6
Freshman Composition	9	Introductory Physics	12
College Algebra	4	Calculus	12
Trigonometry	4	Engineering Mechanics	8
Analytical Geometry	4	Mechanics of Materials	4
Inorganic Chemistry	15	Survey of Metal Practice	9
Engineering Drawing	9	Physical Education	1½
Physical Education or M.C.C.	1½		52½
	—		
	52½		
THIRD YEAR		FOURTH YEAR	
	CREDITS		CREDITS
Religion	6	Religion	6
Electric Circuit Analysis	12	Engineering Materials	6
Fluid Mechanics	4	Engineering Administration	3
Engineering Thermodynamics	8	Heating and Air Conditioning	3
Mechanism	4	Heat Transfer	3
Mechanical Engineering Laboratory I	3	DC-AC Machinery and Circuits	8
Differential Equations	8	Machine Design	9
Structural Design I	9	Mechanical Engineering Laboratory II	3
	—	Electronics	6
	54	Nuclear Physics	6
	—		53

CIVIL ENGINEERING

CE 54. **ELEMENTARY SURVEYING.** Use of transit, level, and chain; systematic methods for notes and computations; transit traverse, stadia survey; leveling, contours, mapping. Prerequisite: Mathematics 22, ME 1-2-3. Three credits; autumn; S., 7:30. Field work, S. 8:30-4:00.

CE 55. **CURVES AND EARTHWORKS.** Theory and computation of simple, compound, and transition curves; earthwork computations; public lands surveys. Prerequisite: CE 54. Three credits; winter; M.W.F., 7:30.

CE 56. **ROUTE SURVEYING.** Preliminary and location surveys for a highway; preparation of maps and reports. Prerequisite: CE 54 and 55. Three credits; spring; S., 7:30-4:00.

CE 73. **MECHANICS OF MATERIALS.** Stresses, deformations and deflections of posts, shafts, beams, columns; combined stresses. Prerequisite: ME 51-52. Four credits; spring; M.T.W.F., 11:10.

CE 101. CONTRACTS AND SPECIFICATIONS. Preparation and interpretation of contracts and specifications; relation of the engineer to the owner and the contractor. Three credits; autumn; M.W.F., 7:30.

CE 102. SOIL MECHANICS. Fundamental principles; testing and classification of soils for use in foundations and highway subgrades; interpretation of test results. Three credits; winter; M.W., 1:00. Laboratory, M., 2:00-5:00.

***CE 106. HIGHWAYS.** Highway materials; location, construction, maintenance and economics of various types of highways. Prerequisite: CE 55, 56, 102. Three credits; spring; M.W.F., 11:10.

CE 131-132-133. STRUCTURAL DESIGN. Wood, steel, and concrete; analysis and design of typical simple structures; trusses and plate girders. Prerequisite: CE 73. Three credits; autumn, winter, spring; M.W.F., 10:15.

CE 146. FOUNDATIONS. Analysis and design of foundations and other substructures including concrete footings, pile foundations, retaining walls, cofferdams, and caissons. Prerequisite: CE 133. Three credits; spring; M.W.F., 11:10.

CE 153. STRUCTURAL ANALYSIS. Introduction to statically indeterminate structures; moving loads. Corequisite: CE 133. Four credits; spring; M.-Th., 7:30.

CE 159. WATER POWER. The hydrologic, economic, and engineering aspects of water power development; dams and waterways; turbines and generating equipment. Prerequisite: ME 111. Five credits; spring; M.-Th., 8:25. Computations, W., 2:00-5:00.

CE 164-165-166. ADVANCED STRUCTURAL DESIGN. Multistory buildings; statically indeterminate structures; continuous girders and trusses; economic factors and selections. Prerequisite: CE 131-132-133, 153. Five credits; autumn, winter, spring; M.-Th., 8:25. Computations, M., 2:00-5:00.

CE 167-168-169. WATER SUPPLY AND SEWAGE. Application of fundamental principles; design of water and sewage works; industrial waste treatment plants. Prerequisite: ME 111. Three credits; autumn, winter, spring; M.W.F., 10:15.

ELECTRICAL ENGINEERING

EE 64-65-66. ELECTRIC AND MAGNETIC CIRCUIT ANALYSIS. Basic electric concepts; Ohm's Law and resistance; Kirchoff's Laws, network theorems and analysis; basic measurements and instrumentation; Coulomb's Law and capacitance; basic magnetic circuit concepts and solution of linear and nonlinear circuits; electromagnetic induction and inductance; steady-state analysis of single phase and polyphase AC circuits; application of complex algebra; resonance and coupled circuits. Corequisite: Physics 51, 52, 53; Mathematics 51-52-53. Four credits; autumn, winter, spring; M.W.F., 1:00. Laboratory, W., 2:00-5:00.

*Not offered 1958-1959.

EE 161-162, 163. DC-AC MACHINERY. Operational characteristics of DC motors, generators, and associated control equipment; characteristics of transformers and their operation in single and polyphase circuits; induction motors; synchronous motors and generators; single phase motors, generators, and other types of rotating machinery; elementary analysis of unbalanced polyphase systems by application of symmetrical components; metering techniques and basic design techniques. Prerequisite: EE 64-65-66. Four credits; autumn, winter, spring; M.W.F., 10:15. Laboratory, M., 2:00-5:00.

EE 164-165-166. RADIO COMMUNICATIONS. Radio frequency amplifiers; oscillators; broad band amplifiers; modulation and demodulation and consideration of systems; electronic filter theory; design and applications. Prerequisite: Physics 111, 112, 113. Four credits; autumn, winter, spring; M.W.F., 11:10. Laboratory, S., 8:00-11:00.

EE 174. FIELDS AND WAVES. A study of basic electric and magnetic fields; field mapping and determination of capacitance, inductance, and related parameters in circuits of simple geometries; study of Maxwell's equations and their development from experimental laws; application to solution of steady-state conditions in rectangular wave guides and simple antenna systems. Prerequisite: EE 64-65-66; Mathematics 161, 162, 163. Five credits; autumn; M.T.W.F., 8:25. Laboratory, T., 2:00-5:00.

EE 175. TRANSMISSION LINES. Transmission line parameters; steady-state voltages and currents in power and communications lines; consideration of wave propagation in wave guides and other high frequency lines; application of Smith chart and crank diagram. Prerequisite: EE 174. Five credits; winter; M.T.W.F., 8:25. Laboratory, T., 2:00-5:00.

EE 176. TRANSIENTS. A consideration of the behavior of electric circuit parameters during time from initiation of emfs to steady-state conditions; also, from steady-state conditions to time of termination of emfs; effects of sudden changes of resistance, inductance and capacitance; application of classical and operational methods to analysis of transient effects in low and high frequency systems. Prerequisite: EE 174, 175. Five credits; spring; M.T.W.F., 8:25. Laboratory, T., 2:00-5:00.

MECHANICAL ENGINEERING

ME 1-2-3. 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. Three credits; autumn, winter, spring; Sec. A, M.W., 1:00-5:30; Sec. B, T.Th., 1:00-5:30.

ME 4-5-6. MECHANICAL DRAWING. Similar to ME 1-2-3, but less intensive; intended to provide a shorter, but complete, drafting course to nonengineering students. Two credits; autumn, winter, spring; M.W., 2:00-5:00.

ME 51-52. ENGINEERING MECHANICS. Statics, two and three-dimensional; analytical and graphical methods; kinetics; work and energy; dynamics of rotating bodies; impulse; momentum. Corequisite: Physics 51, 52, Mathematics 51-52. Four credits; autumn, winter; M.T.W.F., 11:10.

*ME 61-62-63. **ARCHITECTURAL DRAWING.** Architectural detail and its relation to the building; working drawings. A course for Industrial Education majors. Prerequisite: ME 1-2-3 or 4-5-6. Two credits; autumn, winter, spring; M.W., 2:00-5:00.

ME 111. **FLUID MECHANICS.** Fluid statics; fluid dynamics; nozzles, orifices, and weirs; impulse and reaction turbines; pipe flow; channel flow. Prerequisite: ME 51-52. Four credits; autumn; M.-Th., 8:25.

ME 112, 113. **ENGINEERING THERMODYNAMICS.** Properties of gases and vapors; entropy; PV, TS, HS, and HV planes; gas and vapor cycles; psychrometry; refrigeration. Prerequisite: Physics 51, 52, 53. Four credits; winter, spring; M.-Th., 8:25.

ME 119. **MECHANISM.** A study of velocities, accelerations, and motions, as well as a consideration of devices for transferring these motions. Prerequisite: ME 51-52. Four credits; spring; T.Th., 1:00, Th., 7:30, F., 8:25.

ME 122. **ENGINEERING ADMINISTRATION.** Business, legal and ethical phases of engineering practice; engineering organization and management. Three credits; winter; M.W.F., 7:30.

ME 123. **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 111, 112, 113. Three credits; spring; M.W.F., 7:30.

ME 137, 138, 139. **MECHANICAL ENGINEERING LABORATORY I.** Hydraulic flow and tests of hydraulic equipment; calorimetry; instrumentation, calibrations. Corequisite: ME 111, 112, 113. One credit; autumn, winter, spring; T., 2:00-5:00.

ME 141-142-143. **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, constructions, lubrication, safety, and cost. Calculations, layouts and detail drawings as required. Prerequisite: ME 119, CE 73. Three credits; autumn, winter; T.Th., 7:30; F., 8:25; spring; T.Th., 1:00-5:00.

ME 151-152. **ENGINEERING MATERIALS.** Materials of construction—lime, cement, sand, clay, stone, ferrous metals, nonferrous metals; properties, uses, tests, behavior under stress. Prerequisite: CE 73. Five credits; autumn; T.-F., 1:00. Laboratory, Th., 2:00-5:00. One credit; winter; W., 2:00-5:00.

ME 154, 155, 156. **MECHANICAL ENGINEERING LABORATORY II.** Power plant testing; fuels and lubricants; heat engines. Prerequisite: ME 137, 138, 139. One credit; autumn, winter, W., 2:00-5:00; spring, S., 8:00-11:00.

ME 179. **HEAT TRANSFER.** A study of the basic laws of heat transfer by conduction, convection, and radiation. Prerequisite: ME 112, 113, Mathematics 161, 162. Three credits; spring; M.W.F., 10:15.

*Not offered 1958-1959.

ENGLISH

MR. APLINGTON, MRS. BULL, MISS BURGESON, MISS MOORE, MR. WALLER

The department aims to develop correctness and effectiveness in the use of the English language and to enable students to express the best thoughts within themselves. It also seeks to inspire them with the best that has been thought and said by the great authors of English and American literature. It hopes to be instrumental in training some to write for our denominational publications.

MAJOR REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

Introduction to Literature	51	3
American Literature	64, 65, 66	6
English Literature	74, 75	6
News Writing or Literary Composition	84-85-86 141, 142, 143	6
Seminar	197-198-199	3
Electives		21
		45

The following courses are also required:

History 51, 52, 53 or 154, 155, 156.

MINOR REQUIREMENTS:

A minimum of 27 credits including 6 upper division credits. Courses 64, 65, 66; 74, 75, 76; and 84-85-86 or 141, 142, 143 are required.

COMPOSITION

1-2-3. 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 1 or 1A will be repeated in the winter, spring, or summer when the need is adequate. Three credits; autumn, winter, spring; Sec. A, M.W.F., 10:15; Sec. C, M.W.F., 10:15; Sec. D, M.W.F., 11:10; Sec. E, M.W.F., 7:30; Sec. F, M.W.F., 8:25; Sec. G, M.W.F., 8:25; Sec. H, M.W.F., 11:10; Sec. I, M.W.F., 10:15; Sec. J, M.W.F., 11:10; Sec. K, M.W.F., 10:15; Sec. L, M.W.F., 7:30; Sec. M, M.W.F., 8:25.

1A-2-3. 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; Sec. B, autumn, M.-F., 10:15; winter, spring, M.W.F., 10:15; Sec. BB, autumn, M.-F., 10:15; winter, spring, M.W.F., 10:15; Sec. BBB, autumn, M.-F., 8:25; winter, spring, M.W.F., 8:25.

84-85-86. **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; T.Th., 11:10.

141, 142, 143. **LITERARY COMPOSITION.** A course for those who like to write and can do so with reasonable facility in such fields as the essay, the precis, pieces of imagination, and poetry. Two credits; autumn, winter, spring; T.Th., 8:25.

LITERATURE

51. **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. This is prerequisite to the literature classes unless the student shows that he has a working familiarity with the elements of literature. This course does not fulfill the general education literature requirement. Three credits; autumn; M.W.F., 8:25.

64, 65, 66. **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; T.Th., 10:15.

74, 75, 76. **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; M.W.F., 7:30.

82. **TWENTIETH CENTURY LITERATURE.** Modern American and British literary achievements studied as a revelation of contemporary attitudes, ideals, and conduct. Three credits; winter; M.W.F., 8:25.

Courses numbered above 100 have as prerequisites the appropriate lower-division preparation, which varies according to the background of the student in other languages and in history. Consult the department for directions.

*154, 155, 156. **THE VICTORIAN PERIOD.** An advanced study of the poetry and prose of the men who moulded and reflected characteristic opinion and ideals after the first third of the nineteenth century. Three credits; autumn, winter, spring; M.W.F., 10:15.

157, 158, 159. **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; T.Th., 10:15.

*Not offered 1958-1959.

161, 162, 163. **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; T.Th., 11:10.

165. **HISTORICAL AND MODERN GRAMMAR AND LINGUISTICS.** This study, designed for English majors and minors who intend to be teachers, includes a survey of linguistics and historical grammar, but the chief emphasis is on present-day grammar and its tendencies. Required of those seeking departmental recommendation for teaching. Three credits; winter; M.W.F., 11:10.

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

171, 172-173. **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; M.W.F., 7:30.

184, 185, 186. **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; M.W.F., 11:10.

189. **LITERATURE OF THE ENGLISH BIBLE.** Detailed analysis of the technical requirements of Hebrew poetry and prose types, particularly stressing passages that reveal the peculiar literary genius and grandeur of the Bible. Three credits; spring; M.W.F., 8:25.

197-198-199. **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; W., 4:00.

*Not offered 1958-1959.

HISTORY, POLITICAL SCIENCE, AND SOCIAL SCIENCE

MR. WESTERMAYER, MR. CHRISTIAN, MR. HANSON, MR. MECKLING

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:

A total of 54 credits including courses 1, 2, 3; 51, 52, 53; and 194, 195. Nine credits in Political Science and Social Science, selected in consultation with the head of the department, may be included.

MINOR REQUIREMENTS:

A total of 28 credits including courses 1, 2, 3; 51, 52, 53; and 186. Three credits in Political Science or Social Science, selected in consultation with the head of the department, may be included.

1, 2, 3. HISTORY OF CIVILIZATION. A survey of world history from antiquity to the present. Three credits; autumn, winter, spring; M.W.F., 11:10.

51, 52, 53. HISTORY OF THE UNITED STATES. A survey of the colonial period, followed by a more detailed study of the national period. Three credits; autumn, winter, spring; Sec. A, M.W.F., 7:30; Sec. B, M.W.F., 8:25.

EUROPEAN HISTORY

111. ARCHAEOLOGY AND THE ANCIENT NEAR EAST. The archaeological findings of Babylon, Assyria, Egypt, Medo-Persia and minor nations and their relation to history. Two credits; autumn; T.Th., 1:00.

112. GREECE AND THE HELLENISTIC AGE. A study of Greek civilization, its political and intellectual contributions, Hellenistic civilization in relation to the peoples surrounding the Eastern Mediterranean Basin. Two credits; winter; T.Th., 1:00.

113. ROMAN CIVILIZATIONS. Early Roman political forms, the growth of the empire in relation to a militant Christianity, the elements of political decay leading to its decline, the contributions of Roman civilization to the western nations. Two credits; spring; T.Th., 1:00.

141, 142, 143. **EUROPE SINCE 1815.** Political, economic, and social developments in nineteenth and twentieth century Europe, with special attention to our own times. Two credits; autumn, winter, spring; T.Th., 10:15.

151, 152, 153. **CURRENT HISTORY.** A survey of contemporary national and international affairs, based upon an investigation into causal factors. Current magazines, newspapers, and books are used. Two credits; autumn, winter, spring; T.Th., 10:15.

154, 155, 156. **HISTORY OF ENGLAND.** The development and expansion of the English people from the earliest times to the present. Two credits; autumn, winter, spring; T.Th., 7:30.

*159. **THE FAR EAST.** This course offers a survey of the history and culture of Far Eastern people, with emphasis on the interplay of political and cultural influences among the various eastern groups and between them and the Occident. Three credits; spring; M.W.F., 8:25.

*161, 162, 163. **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; T.Th., 11:10.

167. **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; M.W.F., 10:15.

168. **THE RENAISSANCE.** The decline of feudalism, of the gild system, of papal authority, and of scholastic thought, followed by the Italian Renaissance and Humanism in the north. Three credits; winter; M.W.F., 10:15.

169. **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; M.W.F., 10:15.

179. **HISTORY OF THE BRITISH EMPIRE.** Political and economic theories leading to imperialism, territorial growth, the nature of the empire, relation of the various parts to Great Britain. Three credits; spring; M.W.F., 8:25.

184. **TWENTIETH CENTURY TOTALITARIANISM.** An analysis of totalitarian forces operative today with special emphasis on recent religious and political trends in Russia, Italy, and Germany. This course will be offered on a combined lecture and seminar basis. Three credits; autumn; M.W.F., 11:10.

AMERICAN HISTORY

*164, 165. **THE AMERICAN FRONTIER.** The exploration, settlement, and development of the American west with consideration given to economic, social, cultural, and political factors. Two credits; autumn, winter; T.Th., 8:25.

*Not offered 1958-1959.

*166. **AMERICAN DIPLOMATIC RELATIONS.** A study of relations between the United States and other nations, outstanding controversies and their settlement, and the development of recognized foreign policies. Two credits; spring; T.Th., 8:25.

174. **HISTORY OF CANADA.** The French period, English Colonial period in relation to the United States, the National period, westward expansion. Three credits; autumn; M.W.F., 8:25.

176. **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. Three credits; spring, M.W.F., 11:10.

187, 188, 189. **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; T.Th., 11:10.

186. **SEMINAR FOR HISTORY MINORS.** A special orientation and research course required of all history minors. One credit; spring; W., 1:00.

191, 192, 193. **SPECIAL PROBLEMS IN HISTORY.** Open only by written permission of the head of the department to advanced students with a superior background in historical study. Readings, reports, and conferences. One or two credits; autumn, winter, or spring; arranged.

194, 195. **SEMINAR FOR HISTORY MAJORS.** An orientation and research course in problems connected with historical materials and methods. One credit; autumn, winter; W., 1:00.

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:

A total of 28 credits including courses 51, 101, 151, 152 and 165. History 166, 184; Social Science 161; or Business Administration 61-62-63 may be included in the minor. A minimum of 12 credits in cognate history courses, selected in consultation with the head of the department, is also required.

*Not offered 1958-1959.

51. AMERICAN GOVERNMENT. A study of the origin and establishment of our national government; its executive, legislative, and judicial functions with emphasis on church-state relations and the position of the United States as a world power. State and municipal governments also receive consideration. Three credits; autumn; T.Th., 8:25 plus workshop.

*101. **COMPARATIVE EUROPEAN GOVERNMENTS.** A study of the political developments of the major European states, with emphasis placed on contemporary problems. Prerequisite: History 1, 2, 3. Three credits; autumn; M.W.F., 8:25.

*151. **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. A workshop will be conducted as an integral part. Three credits; autumn; T.Th., 8:25 plus workshop.

152. **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; M.W.F., 11:10.

165. **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; winter; M.W.F., 8:25.

SOCIAL SCIENCE

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

MINOR REQUIREMENTS:

A total of 28 credits including courses 2, 104, 172, 173, Political Science 51, and Education 57, 58, or 59. Education 112, 166; Business Administration 61-62-63; and Physical Education 174, 175, or 176 may apply on the minor.

2. **SURVEY OF SOCIOLOGY.** An introductory study of social organization, the nature of social relations, and the influences that shape society. Three credits; winter; M.W.F., 1:00.

104. **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; M.W.F., 10:15.

*Not offered 1958-1959.

105. **HUMAN RELATIONS.** A general course designed to acquaint the student with the ethics of human relationships, of standards of community life, of the responsibilities of the cultured individual in society, and to provide a Christian perspective regarding the problems of marriage and home building. Two credits; winter; T.Th., 8:25.

108. **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; M.W.F., 1:00; summer; arranged.

129. **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; M.W.F., 11:10.

*161. **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 moulding thought. Three credits; autumn; M.W.F., 8:25.

172, 173. **PROBLEMS OF CONTEMPORARY SOCIETY.** Consideration will be given to the philosophy, mystery and challenges of life, to culture and refinement, to factors of heredity and environment, to conditions of the underprivileged and needy, to problems of adolescence and juvenile delinquency, to courtship and marriage, to family and community life. This course intends to aid social workers and all those who wish to help others, as well as better themselves.

Taught by selected staff personnel. Lectures, panel discussions, readings, case studies, cooperative and individual explorations of social problems, with reports. Two credits; winter, spring; T.Th., 8:25.

*Not offered 1958-1959.

HOME ECONOMICS

MISS WRIGHT, MR. WALL, MRS. ZOLBER

The major in General Home Economics is broad and flexible, designed particularly for the general college student or those preparing for teaching. Interior Design and Decoration is for those interested in such professional positions as interior decorator, Extension Service specialist, and drapery or home furnishing consultant. The major in Foods and Nutrition meets all the requirements of the American Dietetics Association and prepares the student to enter a dietetic internship.

HOME ECONOMICS MAJOR REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

A minimum of 45 credits in Home Economics including 21 upper division credits. Courses 1, 2, 3; 72, 73; 171-172; and 186 are required. Chemistry 1-2-3 (12 credits) and Biological Science 7 are also required.

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

A minimum of 45 credits including courses 1, 2, 3; 42, 43; 61; 72, 73; 88; 89; 102 or 103; 164, 165; 186; and 196.

Students must also complete a minor in Art and the following courses: Industrial Education 114, 118, and 153. Physical Education and Recreation 124, 125.

FOODS AND NUTRITION MAJOR REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE:

A minimum of 45 credits in Home Economics including courses 1, 2, 3; 94-95; 141-142; 163; 171-172, 173; 177, 178; and 186. Chemistry 1-2-3 (12 credits) or 21-22-23, 91-92, 156; Biological Science 7; Biological Sciences 85; and Business Administration 91-92-93 or Social Science 2 are also required.

MINOR REQUIREMENTS:

A minimum of 27 credits including 3 credits upper division. Courses 1, 2, 3; 72, 73; 186; and 197 are required.

1, 2. FOODS AND NUTRITION. Discussion of the fundamental problems of food in relation to health; study of the composition, nutritive value, and digestibility of common foods; principles of food selection and preparation. Three credits; autumn, winter; T.Th., 11:10. Laboratory, Sec. A, T., 2:00-5:00; Sec. B, W., 2:00-5:00; Sec. C, Th., 2:00-5:00.

3. MEAL PLANNING AND TABLE SERVICE. A course in menu planning and table service. Preparation and practice in serving formal and informal dinners, buffet suppers, luncheons, etc. Prerequisite: 1, 2, or equivalent. Three credits; spring; T.Th., 11:10. Laboratory, M. or W., 2:00-5:00.

11, 12, 13. BAKING. A practical course in baking with study of ingredients used in manufacturing of breads and rolls. Practice in cake, pie, cookie, and sweet goods production. Problems in baking and cost control. Three credits; autumn, winter, spring. Class and laboratory, arranged.

42, 43. 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 42 prerequisite for 43. Three credits; winter, spring; M.W.F., 8:25.

61. CONSUMER BUYING. A study of the homemaker's problems in buying textiles, clothing and household materials with emphasis on the economic principles involved. Three credits; autumn; M.W.F., 8:25.

67 or 68. **SOCIAL ETHICS.** A preparation for the social aspects of home and community living for both men and women. Two credits; autumn or winter; T.Th., 8:25.

71. **CLOTHING FUNDAMENTALS.** A course presenting the fundamental processes of hand and machine sewing; construction and selection of simple garments. Three credits; autumn; T.Th., 8:25. Laboratory, M. or W., 2:00-5:00.

72, 73. **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: 71 or its equivalent. Three credits; winter, spring; T.Th., 8:25. Laboratory, M. or W., 2:00-5:00.

88. **TEXTILES.** A study of fabrics to determine fundamental differences and to develop judgment in buying clothing and house furnishing materials. Two credits; winter; T.Th., 10:15.

89. **TEXTILE PAINTING AND RELATED ARTS.** Study of line, form and color as applied to textile painting, silk screen printing, basketry, and other arts. Two credits; spring; T., 1:00. Laboratory, T., 2:00-5:00.

94-95. **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: 1, 2, 3. Three credits; autumn, winter; arranged.

102, 103. **WEAVING AND UPHOLSTERING.** The study of the development of weaving, color harmonies and design as applied to fabrics. Construction of hand-woven materials; reupholstering and refinishing furniture; tailoring draperies, bedspreads and slip covers. Prerequisite: ability to sew. Three credits; winter, spring; Th., 2:00-5:00, and arranged.

126. **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; M.W.F., 10:15.

141-142. **CHILD DEVELOPMENT AND NUTRITION.** A study of the care and development of young children, with special reference to home education. Three credits; autumn, winter; M.W.F., 8:25.

*163. **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: 1, 2, 3, and Chemistry 1-2-3. Three credits; spring; T.Th., 8:25. Laboratory, T., 2:00-5:00.

*164, 165. **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

*Not offered 1958-1959.

application of the principles governing the selection of furniture, textiles, pictures, and other furnishings for the home and their arrangement with appropriate backgrounds. Course 42, 43 highly desirable. Three credits; autumn, winter; M.W.F., 10:15.

171-172. **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: 1, 2, 3, and Chemistry 1-2-3. Three credits; autumn, winter; T.Th., 8:25. Laboratory, M., 2:00-5:00.

173. **DIET IN DISEASE.** A thorough study of the diagnosis of nutritional deficiency diseases and specific therapy when illness occurs. The course is intended to enable the dietitian to ably assist the physician in filling the dietary prescription for the specific need of each patient. Prerequisite: 171-172. Three credits; spring; M.W.F., 8:25.

177. **INSTITUTION FOOD PURCHASING.** Marketing operations, buying procedures, food selection and care. Inspection of merchandise at markets and wholesalers. Prerequisite: 1, 2, 3. Three credits; autumn; M.W.F., 10:15.

178. **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 of institution food services. Prerequisite: 1, 2, 3. Three credits; winter; M.W.F., 10:15.

181-182. **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: 71, 72, 73 or equivalent. Two credits; autumn, winter; T., 1:00. Laboratory, T., 2:00-5:00.

186. **SEMINAR.** Studies of selected topics and reviews of current literature. Special investigation of problems. Two credits; spring; T.Th., 10:15.

190. **SPECIAL PROBLEMS IN HOME ECONOMICS.** Individual work to be carried on by the student, and elected only after consultation with the head of the department. One to three credits; arranged.

196. **ADVANCED INTERIOR DECORATION.** Advanced study in interior decoration with advice, estimates, and actual work on decorating problems. Must be taken the last quarter of the senior year. Three credits; spring; arranged.

197. **METHODS OF TEACHING HOME ECONOMICS.** The principles and practices of teaching Home Economics in secondary schools and adult education classes. Special attention will be given to the newer methods of presentation in classroom, laboratory and community demonstrations. Prerequisite: at least 30 hours of Home Economics. Two credits; autumn; T.Th., 10:15.

INDUSTRIAL EDUCATION

MR. TRAUTWEIN, MR. CANADAY, MR. COWIN, MR. WOLFE

The purpose of the department is to prepare students for teaching industrial arts, and for trade training. Opportunity is offered for considerable freedom in course preferences. The offerings allow concentrations in the following areas:

Graphic Arts
Metal Trades
Service Trades
Woodshop Trades

Students preparing for teaching should select, in conference with the major professor, a combination of the areas offered, and complete an additional major in education in place of a minor. Majors who elect trade training should minor in business administration. Terminal courses, to meet individual needs, are also offered. Upon completion of selected courses a certificate will be awarded.

Any laboratory course will satisfy the general vocational graduation requirement. Admission to all laboratory classes is by permission of the instructor. In order to make use of all available facilities, laboratory fees are not refundable, except in case of illness, where a prorated refund will be authorized up to four weeks.

MAJOR REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE:

A minimum of 54 credits including 24 upper division credits. Mechanical Engineering 1-2-3 or 4-5-6 is required in all concentrations except Graphic Arts and applies on the major.

The following courses are also required:

Mathematics 21

Physics 41, 42, 43 or 51, 52, 53

MINOR REQUIREMENTS:

A minimum of 27 credits including 6 upper division credits. Mechanical Engineering 4-5-6 is required in all concentrations except Graphic Arts and applies on the minor.

GRAPHIC ARTS

22 or 23. **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; five hours laboratory; winter or spring. Laboratory, M.T.W. or Th., 12:45-5:45.

24, 25-26. **PRINTING.** Letterpress printing, straight and display composition, typographical design, imposition and simple presswork. Three credits; autumn, winter, spring; T., 11:10. Laboratory, M.T.W. or Th., 12:45-5:45.

*33. **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. Camera required. Two credits; spring; T.Th., 7:30.

91-92-93. **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: 24, 25-26 or equivalent. Two credits; autumn, winter, spring. Laboratory, M.T.W. or Th., 12:45-5:45.

103. **PHOTOGRAPHY II.** Composition, photochemistry, optics, and advanced study of printing, enlarging and processing of chromatic and monochromatic mediums, with actual manipulative experience. Camera required. Prerequisite: 33 or equivalent. Three credits; spring; T, Th., 8:25. Laboratory arranged.

107-108-109. **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: 24, 25-26 or equivalent. Two credits; autumn, winter, spring. Laboratory arranged.

117-118-119. **OFFSET LITHOGRAPHY.** Laboratory experience in offset photography plate making, cold type composition, and presswork. Prerequisite: 24, 25-26 or equivalent. Two credits; autumn, winter, spring. Laboratory, arranged.

METAL TRADES

54. **GAS WELDING.** Basic gas welding, oxyacetylene cutting, braze welding and brazing. Particular attention to the safe use of equipment. Three credits; autumn; Th., 10:15. Laboratory, M. or Th., 12:45-5:45.

55. **ARC WELDING.** Techniques and processes of electric welding with attention to good design, correct and safe use of equipment. Three credits; winter; Th., 10:15. Laboratory, M. or Th., 12:45-5:45.

56. **WELDING PROBLEMS.** Application of courses 54, 55, together with further study of special processes, with direct emphasis on production of assigned and student-selected projects. Prerequisite: 54 and 55 or equivalent. Three credits; spring; Th., 10:15. Laboratory, M. or Th., 12:45-5:45.

71-72-73. **SURVEY OF METAL PRACTICE.** Particularly for mechanical engineering and physics majors, to give a broad introduction to manufacturing operations, with factors influencing design and production. Will not apply toward an Industrial Education major, except in Graphic Arts. Three credits; autumn, winter, spring; M.W., 8:25. Laboratory, T., 12:45-3:25, T., 3:20-6:00, W., 12:45-3:25, or W., 3:20-6:00.

*74-75-76. **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. Three credits; autumn, winter, spring; T., 10:15. Laboratory, M. or Th., 12:45-5:45.

*Not offered 1958-1959.

171-172-173. **MACHINE TOOL PRACTICE II.** Advanced processes of turning and hand work together with operations involving milling, shaping, and grinding, gear calculation and cutting, with definitely assigned exercises, together with student-selected projects. Prerequisite: 74-75-76, or equivalent. Three credits; autumn, winter, spring; T., 10:15. Laboratory, arranged.

SERVICE TRADES

1, 2, 3. **AUTOMOTIVE MECHANICS.** A comprehensive basic course on 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. Three credits; autumn, winter, spring; T.Th., 7:30. Laboratory, T. or Th., 1:15-4:15.

101. **ENGINE MAINTENANCE AND REPAIR.** Special attention to removal, disassembly, inspection, repair and reassembly of the automotive engine. Prerequisite: 1 or equivalent. Two credits; autumn; W., 1:00. Laboratory, W., 2:00-5:00.

102. **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: 3 or equivalent. Two credits; winter; W., 1:00. Laboratory, W., 2:00-5:00.

103. **ENGINE TUNE-UP.** Special attention to the fuel and electric systems, trouble shooting and testing engine performance. Prerequisite: 1, 2 or equivalent. Two credits; spring; W., 1:00. Laboratory, W., 2:00-5:00.

WOODSHOP TRADES

41, 42, 43. **WOOD TURNING I.** Spindle, face plate, and chuck turning. Assigned projects, and original designs, including finishing. Two credits; autumn, winter, spring; M.T.W. or Th., 12:45-5:45.

61, 62, 63. **COLLEGE WOODWORK.** Working drawings, hand and machine operations, and finishing as applied to basic furniture construction and cabinet making. Two or three credits; autumn, winter, spring; Th., 11:10. Laboratory, three or five hours, M.T.W. or Th., 12:45-5:45.

114. **FURNITURE DESIGN.** Types of furniture, principles of design applied to furniture and its construction. Three credits; autumn; M.W.F., 7:30.

115. **FURNITURE CONSTRUCTION.** Power machines, jigs, attachments, as applied to furniture making. Prerequisite: 61, 62, 63 or equivalent. Three credits, winter; M.W.F., 7:30.

*118. **FINISHING MATERIALS AND METHODS.** Composition and application of finishing materials, selection and care of equipment. Two credits; winter; M.W., 7:30.

*Not offered 1958-1959.

121, 122, 123. **ADVANCED WOODWORK.** Advanced operation with power machines, finishing methods and design. Assigned and student-selected projects. Prerequisite: 61, 62, 63 or equivalent. Course 114 prerequisite or concurrent. Two credits; autumn, winter, spring; M.T.W. or Th., 12:45-5:45.

127, 128, or 129. **WOOD TURNING II.** Intricate cuts, special chucking devices, fancy turning. Prerequisite: four credits from 41, 42, 43. Two credits; autumn, winter, or spring; M.T.W. or Th., 12:45-5:45.

GENERAL

147. **SHOP ADMINISTRATION AND PLANNING.** School shop planning, supplies, personnel organization, and shop management. Required prior to Directed Teaching. Three credits; autumn, M.W.F., 10:15.

148. **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; winter; M.W.F., 10:15.

149. **METHODS OF TEACHING INDUSTRIAL ARTS.** Methods and techniques in selection, presentation, and testing content material in industrial subjects. Prerequisite: 148. Required prior to Directed Teaching. Three credits; spring; M.W.F., 10:15.

153. **HOME MECHANICS.** A nontechnical course covering simple repair and maintenance of common appliances and devices used in and about the home. May not be applied toward a major or a minor in Industrial Education. Two credits; spring; arranged.

154, 155, or 156. **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. Two or three credits; autumn, winter, or spring; arranged.

*177. **HISTORY OF INDUSTRIAL ARTS.** Origin and growth of industrial arts, emphasizing aims and objectives in the field of education. Two credits; autumn; T.Th., 8:25.

191, 192, 193. **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 head. Prerequisite: lower division work in same area for supervisory or teaching-aid construction. Six credits maximum from this and/or Special Problems Laboratory.

191A, 192A, 193A. **SPECIAL PROBLEMS IN INDUSTRIAL EDUCATION LABORATORY.** Advanced laboratory work in a chosen area, to be selected in counsel with the department head. Six credits maximum from this and/or Special Problems. Prerequisite: lower division work in chosen area.

*Not offered 1958-1959.

LANGUAGES

MISS SORENSEN, MR. LITKE, 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 Biblical languages are offered primarily for students in the School of Theology.

The department offers majors in Spanish and Modern Languages and minors in German, Spanish, and Biblical Languages.

SPANISH MAJOR REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

A minimum of 40 credits beyond the elementary courses.

MODERN LANGUAGE MAJOR REQUIREMENTS:

A total of 58 credits in two languages with the grouping of 36 and 22 credits respectively, and exclusive of elementary courses.

MINOR REQUIREMENTS:

A minimum of 24 credits beyond the elementary courses.

SPANISH

1-2-3. **ELEMENTARY SPANISH.** 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. Five credits; autumn, winter, spring; M.-F., 7:30.

51, 52, 53. **SPANISH READING.** 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; M.W.F., 10:15.

54, 55, 56. **SPANISH COMPOSITION AND CONVERSATION.** Grammar and composition drills and idioms. Two credits; autumn, winter, spring; T.Th., 10:15.

101, 102, 103. **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; M.W.F., 11:10.

*152. **SPANISH PRONUNCIATION.** An analysis of the difficulties of Spanish pronunciation; abundance of individual drill and practical directions for remedial exercises. Two credits; winter; T.Th., 11:10.

*Not offered 1958-1959.

154, 155, 156. **SPANISH DIRECTED READING.** One to three credits each quarter are offered to advanced students. The work consists of assigned readings and reports. Prerequisite: 101, 102, 103. Autumn, winter, spring; T.Th., 1:00.

*159. **ADVANCED SPANISH CONVERSATION.** Prerequisite: 54, 55, 56. Practice in conversation for those preparing to teach. Two credits; spring; arranged.

*161. **SPANISH ESSAY.** A study of the important Spanish essayists and their representative essays. Three credits; autumn; M.W.F., 8:25.

*165, 166. **LATIN AMERICAN LITERATURE.** A survey of Latin American literature with special emphasis on the South American authors. Three credits; winter, spring; M.W.F., 8:25.

FRENCH

1-2-3. **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; M.-F., 11:10.

*51, 52, 53. **FRENCH READING.** Selected readings from standard French authors. A course designed for intermediate students who desire a reading knowledge. Three credits; autumn, winter, spring; M.W.F., 11:10.

GERMAN

1-2-3. **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; M.-F., 11:10.

51, 52, 53. **GERMAN READING.** 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; M.W.F., 10:15.

54-55-56. **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; arranged.

101, 102, 103. **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; M.W.F., 8:25.

*Not offered 1958-1959.

153. 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; arranged.

154, 155, 156. GERMAN DIRECTED READING. One to three credits each quarter are offered to advanced students. The work consists of assigned readings in the library and written reports. Prerequisite: 101, 102, 103. Autumn, winter, spring; T., 1:00.

163. 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; arranged.

BIBLICAL LANGUAGES

7-8-9. 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 Gospel of John. Five credits; autumn, winter, spring; M.-F., 7:30.

61, 62, 63. GREEK II. More extensive readings in I John, Revelation and selections from the Gospels. The emphasis is on exegesis and interpretation. Three credits; autumn, winter, spring; M.W.F., 11:10.

***121, 122, 123. 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; T.Th., 10:15.

124, 125, 126. LATER EPISTLES OF PAUL. An exegical 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; T.Th., 10:15.

171-172-173. 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; M.W.F., 1:00.

*Not offered 1958-1959.

MATHEMATICS

MR. BRINKER, MR. HARE, MRS. SCHLOTTHAUER

MAJOR REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

A minimum of 45 credits including courses 21, 22, 23, and 51-52-53, and 21 upper division credits.

MAJOR REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE:

A minimum of 45 credits including courses 21, 22, 23 and 51-52-53, and 21 upper division credits. A total of 90 credits in mathematics and science including two of the elementary courses in Biology, Chemistry, or Physics must be completed.

MINOR REQUIREMENTS:

A minimum of 27 credits including courses 21, 22, 23, and 51-52-53, and 3 upper division credits.

1. INTERMEDIATE ALGEBRA. A course beginning with fundamental arithmetic principles and continuing through their generalization in introductory algebra. Does not apply on a Mathematics major or minor. Four credits; autumn; Sec. A, M.T.W.F., 10:15; Sec. B, M.T.W.F., 11:10.

4-5-6. PLANE GEOMETRY. This course is designed for students who lack the geometry requirement for college entrance. (No credit if geometry was taken in high school.) Two credits; autumn, winter, spring; T.Th., 11:10.

21. COLLEGE ALGEBRA. A course for those with two or more semesters of preparatory algebra well recalled. Linear and quadratic equations; binomial theorem; mathematical induction; complex numbers; determinants; theory of algebraic equations. Prerequisite: 1 or a satisfactory score on the Mathematics Placement Test. Four credits; autumn; Sec. A, M.T.W.F., 8:25; Sec. B, M.-Th., 10:15; Sec. C, M.-Th., 11:10; winter; Sec. A, M.T.W.F., 10:15; Sec. B, M.T.W.F., 11:10.

22. PLANE TRIGONOMETRY. A study of the six trigonometric functions and their use in the solution of the triangle. Prerequisite: 21. Four credits; winter; Sec. A, M.T.W.F., 8:25; Sec. B, M.-Th., 10:15; spring; M.T.W.F., 11:10.

23. ANALYTICAL GEOMETRY. The equations of the straight line and conic sections and their relation to the rectangular and polar coordinates. Prerequisite: 21, 22. Four credits; spring; Sec. A, M.T.W.F., 8:25; Sec. B, M.-Th., 10:15.

51-52-53. CALCULUS. The elements of differential and integral calculus with many problems in its application. Prerequisite: 23. Four credits; autumn, winter, spring; Sec. A, M.-Th., 7:30; Sec. B, M.-Th., 8:25.

101. INTRODUCTION TO MATHEMATICAL STATISTICS. Probability, distributions for discrete and continuous variates, moment generating functions, sampling, point estimation, coefficient of correlation, and tests of hypotheses. Prerequisite: 53. Two credits; autumn; arranged.

102-103. SOLID ANALYTICAL GEOMETRY. Typical equations of the plane, sphere, paraboloid, hyperboloid, and ellipsoid, and their relation to rectangular and polar coordinates. Includes determinant and matrix theory as applied to geometry of space. Prerequisite or corequisite: 53. Two credits; winter, spring; arranged.

151. THEORY OF EQUATIONS. Further study of complex numbers, solution of cubic and quadratic equations, symmetric functions, determinants, resultants, and discriminants. Prerequisite: 51-52-53. Offered upon sufficient demand. Four credits; autumn, arranged.

152. INTRODUCTION TO MODERN ALGEBRA. Reinterpretation of the results of classical algebra, giving for greater unity and generality. Offered upon sufficient demand. Four credits; winter; arranged.

153. COLLEGE GEOMETRY. A course in advanced Euclidian plane geometry, including properties of the triangle, similarity, and harmonic points and lines. Offered upon sufficient demand. Four credits; spring; arranged.

161, 162, 163. DIFFERENTIAL EQUATIONS AND ADVANCED CALCULUS. The solution of the various types of differential equations with applications to problems in physics, engineering, and geometry. Infinite series; implicit functions; Riemann integration. Prerequisite: 53. Four credits; autumn, winter, spring; M.T.W.F., 7:30.

171, 172, 173. INTRODUCTION TO ADVANCED ANALYSIS. Partial differential equations; Fourier series; Vector and Tensor analysis. Prerequisite: 161, 162, 163. Offered upon sufficient demand. Four credits; autumn, winter, spring; arranged.

190. 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 to two credits; arranged.

MUSIC

MR. WALKER, MR. DAVIS, MR. GERNET, MR. HAFNER, MR. TAYLOR,
MRS. TAYLOR

The department offers instruction for those who wish to choose music as a career and for those wishing to develop a cultural appreciation of music. Courses and instruction leading to the Bachelor of Music or the Bachelor of Arts degree are available.

BACHELOR OF MUSIC

Students wishing to become professional musicians should choose this degree and major either in Band and Orchestra instruments, Music Education, Piano, Organ, Violin, or Voice. Preparatory work in the chosen major and a natural gift for music are prerequisites. A total of 192 credits is required. Sincerity of purpose, application, and aptitude must be demonstrated during the first three quarters before full status as a major student is granted.

BAND AND ORCHESTRA INSTRUMENTS, PIANO, ORGAN, VIOLIN, OR VOICE MAJOR REQUIREMENTS FOR A BACHELOR OF MUSIC DEGREE:

FIRST YEAR		SECOND YEAR	
	CREDITS		CREDITS
Religion	6	Religion	6
Freshman Composition	9	Applied Major II	12
Applied Major I	12	Theory II	12
Theory I	12	Music Literature	6
Electives	9	Electives	9
Physical Education or Medical Cadet Corps	1½	Physical Education	1½
Band, Choir, Orchestra or Small Ensemble	0	Band, Choir, Orchestra, or Small Ensemble	3
	—		—
	49½		49½

THIRD YEAR		FOURTH YEAR	
	CREDITS		CREDITS
Religion	6	Religion	6
Applied Major III	12	Applied Major IV	12
History of Music	9	Voice Methods	3
Counterpoint	6	Choral Conducting	3
Form and Analysis	6	Instrumental Conducting	3
Band, Choir, Orchestra or Small Ensemble	3	Orchestration	6
Humanities	6	Composition	6
	—	Band, Choir, Orchestra, or Small Ensemble	3
	48	Electives	6
	—		—
	48		48

A recital during both the junior and senior years is required. Students must also register for piano as elective credit until an examination can be successfully completed. Ensemble is required for each quarter in residence. Voice majors must be in the choir, string majors in the orchestra, and brass and woodwind majors must be in orchestra or band. Voice majors who have had two units of French or German on the secondary level must register for 9 credits of French or German. Voice majors who have not had French or German on the secondary level must register for 15 credits.

MUSIC EDUCATION MAJOR REQUIREMENTS FOR A BACHELOR OF MUSIC DEGREE:

Students interested in teaching music in elementary or secondary schools should major in Music Education and complete certification requirements.

FIRST YEAR		SECOND YEAR	
	CREDITS		CREDITS
Religion	6	Religion	6
Freshman Composition	9	Education, Psychology	9
History of Civilization	9	Theory II	12
Applied Major I	6	Music Literature	6
Theory I	12	Applied Major I	6
Brass Methods	3	Woodwind Methods	3
Physical Education or Medical Cadet Corps	1 1/2	Band, Choir, or Orchestra	3
Band, Choir, or Orchestra	0	Physical Education	1 1/2
Electives or Piano	3	Electives	3
	<hr/> 49 1/2		<hr/> 49 1/2

THIRD YEAR		FOURTH YEAR	
	CREDITS		CREDITS
Religion	6	Religion	6
American Literature	6	History of Music	9
Form and Analysis	6	Voice Methods	3
Directed Teaching	6	Choral Conducting	3
Applied Major II	6	Instrumental Conducting	3
Piano	6	Orchestration	6
String Methods	3	Applied Major II	4
Band, Choir, or Orchestra	3	Piano	6
Percussion Methods	1 1/2	Piano Methods	3
Electives	1 1/2	Band, Choir, or Orchestra	3
	<hr/> 45	Joint Senior Recital or Project	<hr/> 2
			48

Piano is recommended. Students may choose another instrument but must demonstrate satisfactory attainment in piano or register for piano until the necessary competence has been achieved. Voice majors must be in choir, string majors must be in orchestra, and brass and woodwind majors must be in band or orchestra during each year in residence.

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 pre-

paratory work in the chosen major instrument and a natural gift for music. Candidates for this degree must meet all arts degree requirements.

MUSIC MAJOR REQUIREMENTS:

	Credits
Theory I, II	24
Applied Music I and II	19
Joint Senior Recital	2
Music History	9
Music Electives: Composition, Counterpoint, Form and Analysis, Music Literature or Orchestration	6
Band, Choir, Orchestra, or Small Ensemble	3
	<hr/>
	63

The following course is also required:

History 1, 2, 3

MINOR REQUIREMENTS:

A minimum of 30 credits including History of Music; Theory I; Applied Music, 6; and Ensemble, 3.

THEORY AND COMPOSITION

1. **FUNDAMENTALS OF MUSIC.** May not be counted toward a major or a minor. A basic course intended to lay a foundation in the following: notation, rhythm, scales, key-signatures, chords, terms, form, sight singing, and conducting. An elementary knowledge of the piano is beneficial but not a prerequisite. Two credits; autumn; T.Th., 7:30.

4-5-6. **THEORY I.** Prerequisite: the ability to play hymns on the piano at sight. A composite course including harmony, keyboard harmony, diction, sight singing. Four credits; autumn, winter, spring; M.-F., 8:25.

*64-65-66. **THEORY II.** Prerequisite: 4-5-6. A composite course that continues the work begun in Theory I. Four credits; autumn, winter, spring; M.-F., 7:30.

101-102-103. **COUNTERPOINT.** A study of 16th century polyphony through an analysis of 16th century composition and written exercises in the various modes in the five species for two, three, and four voices. The composition of a motet and an invention will be part of the spring quarter's work. Two credits; autumn, winter, spring; T.Th., 10:15.

*104-105-106. **FORM AND ANALYSIS.** Prerequisite: 64-65-66. A study of the structures of music from the phrase to the sonata, rondo, and variation forms. Two credits; autumn, winter, spring; T.Th., 10:15.

*151-152-153. **ORCHESTRATION.** A study of musical instruments and the art of arranging various compositions for full band or orchestra. Two credits; autumn, winter, spring; T.Th., 8:25.

*Not offered 1958-1959.

154, 155, 156. **COMPOSITION.** A study of the art of writing responses, hymns, anthems, and instrumental compositions in the smaller forms. Two credits; autumn, winter, spring; arranged.

HISTORY AND LITERATURE

57, 58, 59. **SURVEY OF HISTORY AND LITERATURE OF MUSIC.** A study of the form and styles of musical composition including the folk song, art song, oratorio, opera, suite, symphonic poem, sonata, symphony and fugue. This course does not presuppose a technical knowledge of music. Two credits; autumn, winter, spring; T.Th., 11:10.

157, 158, 159. **HISTORY OF MUSIC.** The development of music and musical form from earliest records through the Medieval, Renaissance, Baroque, Classical, Romantic, and Impressionistic periods to the present. Three credits; autumn, winter, spring; M.W.F., 10:15.

MUSIC EDUCATION

*51-52-53. **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. One credit; autumn, winter, spring; arranged.

55-56. **MUSIC IN THE ELEMENTARY SCHOOL.** Prerequisite: 1 or its equivalent. 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. Two credits; winter, spring; T.Th., 7:30.

*67-68-69. **BRASS METHODS.** A class in brass instruments is 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, Mellophone, French Horn, Trombone, Baritone, and Tuba.** Active participation in a training band constitutes a part of this course. One credit; autumn, winter, spring; arranged.

71-72-73. **WOODWIND METHODS.** A class conducted as an introduction to the teaching of such woodwinds as **Clarinet, Oboe, Flute, and Bassoon** with demonstrations of the class teaching of these instruments. One credit; autumn, winter, spring; arranged.

84-85-86. **STRING METHODS.** A class in playing of **Violin, Viola, Cello, and Bass**, as an introduction to the teaching of these instruments and as a demonstration of class teaching. One credit; autumn, winter, spring; arranged.

*87-88-89. **PERCUSSION METHODS.** Methods of teaching and instruction in the various percussion instruments. One-half credit; autumn, winter, spring; arranged.

147. **VOICE METHODS.** A class conducted as an introduction to the teaching of voice, and will include a study of breathing, tone, diction,

*Not offered 1958-1959.

interpretation, and repertoire. Three credits; autumn; arranged.

148. CHORAL CONDUCTING AND ORGANIZATION. Tone production, baton technique and interpretation, and repertoire. Organization of choirs and choruses at different grade levels. Materials and methods. Concerts and Sabbath services. Practical experience in conducting various vocal organizations on the campus. Prerequisite: 147. Three credits; winter; arranged.

149. INSTRUMENTAL CONDUCTING AND ORGANIZATION. Baton technique, score reading, interpretation, repertoire, problems of material, organizing the music library, planning and conducting concerts, organization within the band and orchestra, point systems, grading, and other topics. Prerequisite: 148. Three credits; spring; M.W.F., 8:25.

CHURCH MUSIC

62. CONDUCTING. A course for nonmusic majors designed to acquaint the student with the fundamentals of conducting congregational singing. Prerequisite: 1 or its equivalent. One credit; winter; arranged.

VOCAL AND INSTRUMENTAL ENSEMBLES

All music students are invited to take advantage of the excellent opportunities offered in the various ensemble activities. Students majoring in voice or orchestral instruments are required to participate in their respective organizations each year that they are in residence regardless of the ensemble credits accumulated. Piano and organ majors are also required to take some type of ensemble each year of residence.

No student will be given credit for any single quarter of Choir, Band or Orchestra until he has completed satisfactorily the spring quarter's work.

74-75-76. 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; T.Th., 5:30.

77-78-79. THE WALLA WALLA COLLEGE CONCERT BAND. Frequent secular and sacred concerts are given for the students and community as well as performances in various cities. The repertoire includes brilliant military marches of Sousa, King, and others; orchestral transcriptions from such composers as Beethoven, Wagner, and Schubert; original symphonic compositions by Holst, Fauchet, Creston, and others. Auditions are required for the purpose of assigning chairs. One credit; autumn, winter, spring; T.Th., 9:20

81-82-83. WALLA WALLA COLLEGE CONCERT 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; M.W., 5:30.

APPLIED MUSIC

Applied music credit is based on the amount of practice and the number of lessons taken. For each credit the student is expected to do a minimum of four hours practice per week. Two lessons a week are required for more than two hours credit. The maximum allowed during any quarter is 4 credits. If student teachers are available their pupils may receive one-half credit. The grade and credit are jeopardized if the student fails to take the minimum lesson requirement—9 lessons or 18 lessons depending on whether he takes one or two lessons a week.

Music majors are required to take lessons on their chosen instrument each quarter regardless of the amount of credit accumulated.

Students enrolled in applied music are requested to secure the approval of their teachers before participating in public programs. Attendance at recitals is required for all majors.

The minimum piano requirements for those majoring in Voice, Violin, Clarinet, Trumpet, Trombone, and other orchestral instruments are as follows:

Technique: Major and harmonic minor scales, one, two, three, and four notes to a beat; major, minor, diminished, and augmented triads; solid and broken arpeggios.

Repertoire: Easier classics of Bach, Clementi, Mozart, and Haydn; compositions by nineteenth and twentieth century composers; hymns.

Sight reading: Second-grade material.

PIANO

Prerequisite: The candidate will be expected to perform, to the satisfaction of the head of the piano department, technique, studies, and pieces comparable in difficulty and style to the following works:

TECHNIQUE:

Major and Minor scales legato and staccato, four notes to a beat up to four octaves at a moderate tempo (M.M. quarter note = 92).

Major and Minor arpeggios in root position, first and second inversions legato four notes to a beat up to four octaves at a moderate tempo (M.M. quarter note = 80).

STUDIES:

Czerny—Op. 299

Heller—Op. 47

Bach—Little Preludes and Two-part Inventions

PIECES:

Haydn—Sonatas No. 11, No. 20 (Schirmer)

Mozart—Sonatas No. 3, No. 13 (Schirmer)

Beethoven—Sonata Op. 49, No. 1

Brahms—Waltzes

PIANO I. Bach, Two or Three Part Inventions, a Prelude and Fugue, movements from the French and English Suites; Beethoven, Sonata, Op. 14, No. 1; Romantic and Modern selections such as Mendelssohn's Songs Without Words.

PIANO II. Bach, a continuation of Inventions, Suites, Preludes and Fugues; Beethoven, Sonatas such as Op. 2, No. 1, and Op. 26, Concertos in C Major or B flat Major; Mendelssohn, Concerto in G Minor; Chopin, Polonaise in C Sharp Minor, Waltz in E Minor; Schumann, Bird as Prophet; other Romantic and Modern selections of similar difficulty.

PIANO III. Bach, Preludes and Fugues, Suites, Partitas; Beethoven, Sonatas equal to Op. 31, No. 3; Chopin, Etudes, Nocturnes, Preludes, Polonaises; other Romantic and Modern selections.

PIANO IV. Bach, transcriptions of organ works by Busoni, Tausig, Liszt; Beethoven, Sonatas such as Op. 53, Op. 57; Chopin, Etudes, Ballades, Scherzi; Liszt, Rhapsodies, Etudes; Schumann, Sonata in G Minor, Concerto in A Minor; selections by Debussy, Ravel, Prokofieff, Shostakowitch, Kabelevsky, etc.

ORGAN

Prerequisite: The candidates will be expected to perform, to the satisfaction of the head of the organ department, technique, studies and pieces comparable in difficulty and style to those listed under piano prerequisites.

ORGAN I. Organ instruction book: Preparatory manual and pedal exercises. Dupre: Choral Preludes. Bach: Short Preludes and Fugues. Easier movements from the sonatas of Mendelssohn, Guilmant, and Rheinberger. Selections by other standard composers. Hymns.

ORGAN II. Continuation of technical studies to suit individual needs. Dupre: Choral Preludes. Rheinberger: Trios. Bach: Choral Preludes from the Orgelbuchlein; Fugue in G Minor. Franck: Fantasia in C Major. Sonatas and other selections from the standard organ repertoire.

ORGAN III. Bach: Toccata and Fugue in D Minor; Chorale Preludes. Franck: Cantabile; Pastorale. Guilmant: Sonata in D Minor. Boellman: Gothique Suite. Other compositions that are comparable in difficulty.

ORGAN IV. Bach: Chorale Preludes; Fantasia and Fugue in G Minor; Prelude and Fugue in D Major. Franck: Chorales; Piece Heroique. Widor; Fifth Symphony.

VOICE

Prerequisite: Possession of a good voice, ability to read and sing a simple song at sight and on pitch, ability to sing a folk song, a patriotic song or a hymn from memory to demonstrate voice, instinctive interpretive ability and sense of rhythm.

VOICE I. Classification of the voice, procedures leading to correct tone production, and simple classics and contemporary songs to assist tone production through articulation and interpretation. Study is given to the form and content of representative song material and to the easier arias and recitatives from the major oratorios.

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; M.W., 5:30.

APPLIED MUSIC

Applied music credit is based on the amount of practice and the number of lessons taken. For each credit the student is expected to do a minimum of four hours practice per week. Two lessons a week are required for more than two hours credit. The maximum allowed during any quarter is 4 credits. If student teachers are available their pupils may receive one-half credit. The grade and credit are jeopardized if the student fails to take the minimum lesson requirement—9 lessons or 18 lessons depending on whether he takes one or two lessons a week.

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Repertoire: Easier classics of Bach, Clementi, Mozart, and Haydn; compositions by nineteenth and twentieth century composers; hymns.

Sight reading: Second-grade material.

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Prerequisite: The candidate will be expected to perform, to the satisfaction of the head of the piano department, technique, studies, and pieces comparable in difficulty and style to the following works:

TECHNIQUE:

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Beethoven—Sonata Op. 49, No. 1

Brahms—Waltzes

interpretation, and repertoire. Three credits; autumn; arranged.

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62. CONDUCTING. A course for nonmusic majors designed to acquaint the student with the fundamentals of conducting congregational singing. Prerequisite: 1 or its equivalent. One credit; winter; arranged.

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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; M.W., 5:30.

APPLIED MUSIC

Applied music credit is based on the amount of practice and the number of lessons taken. For each credit the student is expected to do a minimum of four hours practice per week. Two lessons a week are required for more than two hours credit. The maximum allowed during any quarter is 4 credits. If student teachers are available their pupils may receive one-half credit. The grade and credit are jeopardized if the student fails to take the minimum lesson requirement—9 lessons or 18 lessons depending on whether he takes one or two lessons a week.

Music majors are required to take lessons on their chosen instrument each quarter regardless of the amount of credit accumulated.

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The minimum piano requirements for those majoring in Voice, Violin, Clarinet, Trumpet, Trombone, and other orchestral instruments are as follows:

Technique: Major and harmonic minor scales, one, two, three, and four notes to a beat; major, minor, diminished, and augmented triads; solid and broken arpeggios.

Repertoire: Easier classics of Bach, Clementi, Mozart, and Haydn; compositions by nineteenth and twentieth century composers; hymns.

Sight reading: Second-grade material.

PIANO

Prerequisite: The candidate will be expected to perform, to the satisfaction of the head of the piano department, technique, studies, and pieces comparable in difficulty and style to the following works:

TECHNIQUE:

Major and Minor scales legato and staccato, four notes to a beat up to four octaves at a moderate tempo (M.M. quarter note = 92).

Major and Minor arpeggios in root position, first and second inversions legato four notes to a beat up to four octaves at a moderate tempo (M.M. quarter note = 80).

STUDIES:

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Beethoven—Sonata Op. 49, No. 1

Brahms—Waltzes

PIANO I. Bach, Two or Three Part Inventions, a Prelude and Fugue, movements from the French and English Suites; Beethoven, Sonata, Op. 14, No. 1; Romantic and Modern selections such as Mendelssohn's Songs Without Words.

PIANO II. Bach, a continuation of Inventions, Suites, Preludes and Fugues; Beethoven, Sonatas such as Op. 2, No. 1, and Op. 26, Concertos in C Major or B flat Major; Mendelssohn, Concerto in G Minor; Chopin, Polonaise in C Sharp Minor, Waltz in E Minor; Schumann, Bird as Prophet; other Romantic and Modern selections of similar difficulty.

PIANO III. Bach, Preludes and Fugues, Suites, Partitas; Beethoven, Sonatas equal to Op. 31, No. 3; Chopin, Etudes, Nocturnes, Preludes, Polonaises; other Romantic and Modern selections.

PIANO IV. Bach, transcriptions of organ works by Busoni, Tausig, Liszt; Beethoven, Sonatas such as Op. 53, Op. 57; Chopin, Etudes, Ballades, Scherzi; Liszt, Rhapsodies, Etudes; Schumann, Sonata in G Minor, Concerto in A Minor; selections by Debussy, Ravel, Prokofieff, Shostakowitch, Kabelevsky, etc.

ORGAN

Prerequisite: The candidates will be expected to perform, to the satisfaction of the head of the organ department, technique, studies and pieces comparable in difficulty and style to those listed under piano prerequisites.

ORGAN I. Organ instruction book: Preparatory manual and pedal exercises. Dupre: Choral Preludes. Bach: Short Preludes and Fugues. Easier movements from the sonatas of Mendelssohn, Guilmant, and Rheinberger. Selections by other standard composers. Hymns.

ORGAN II. Continuation of technical studies to suit individual needs. Dupre; Choral Preludes. Rheinberger: Trios. Bach: Choral Preludes from the Orgelbuchlein; Fugue in G Minor. Franck: Fantasia in C Major. Sonatas and other selections from the standard organ repertoire.

ORGAN III. Bach: Toccata and Fugue in D Minor; Chorale Preludes. Franck: Cantabile; Pastorale. Guilmant: Sonata in D Minor. Boellman: Gothique Suite. Other compositions that are comparable in difficulty.

ORGAN IV. Bach: Chorale Preludes; Fantasia and Fugue in G Minor; Prelude and Fugue in D Major. Franck: Chorales; Piece Heroique. Widor; Fifth Symphony.

VOICE

Prerequisite: Possession of a good voice, ability to read and sing a simple song at sight and on pitch, ability to sing a folk song, a patriotic song or a hymn from memory to demonstrate voice, instinctive interpretive ability and sense of rhythm.

VOICE I. Classification of the voice, procedures leading to correct tone production, and simple classics and contemporary songs to assist tone production through articulation and interpretation. Study is given to the form and content of representative song material and to the easier arias and recitatives from the major oratorios.

VOICE II. Continuation of technical studies for development of the individual qualities of the voice. Additional songs, recitatives and arias from standard oratorios and operas.

VOICE III. German songs from Schubert, Schumann, R. Strauss, Beethoven, Grieg, and others, songs in English from Lully, Handel, Tschaikovsky, Rachmaninoff, Campbell-Tipton, Charles, Malotte and others; Italian and French songs from leading composers.

VOICE IV. Continuation of French, German, and Italian diction is required. Additional songs in English, French, German, and Italian are selected from the composers' best works; selected recitatives, arias and solos from other standard composers. Preparation of program for graduation recital, appearance as soloist with the College orchestra upon recommendation of the Conservatory faculty. At the end of four years, the student should have a repertoire of at least one hundred well-learned songs, many of which are memorized.

VIOLIN

Prerequisite: Before entering the freshman year, students must be prepared to be examined in any of the following preparatory materials:

Kayser Etudes Op. 20, bk. 2; Rode Caprices, Dont, Op. 37 and 38; Seitz Concertos; Rode Concerto Nos. 4, 7; Major and Minor Scales in 1st-5th positions.

VIOLIN I. **Etudes:** Kreutzer; Rode Caprice; **Sonatas:** Handel Tartini in G Minor; **Concertos:** Spohr Nos. 2, 6, Viotti Nos. 22, 23, Mozart A Major.

Major and Minor three octave scales; also thirds; sixths, simple octaves, and tenths.

VIOLIN II. **Etudes:** Dont, Op. 35; Cavinies 24 Matinees; **Concertos:** Bach, A Minor; Vivaldi, A Minor and G Minor; Nardini; Mozart, D Major and E-flat Major.

Three octave scale plus arpeggios up to C in 4 octaves; continue thirds, sixths, tenths.

VIOLIN III. **Etudes:** Bach Sonatas for Violin alone; Paganini Caprices; Wieniawski Modern School Op. 10. **Concertos:** Wieniawski No. 2; Bruch G Minor; Mendelssohn; Saint-Saens B Minor; Lalo Spanish Symphony; Spohr Nos. 8 and 9.

VIOLIN IV. Bach Sonatas for Violin alone; Paganini Concerto; Ernst, F-sharp Minor; Bruch, D Minor; Beethoven; Brahms, Beethoven and Franck Sonatas.

The student should further demonstrate adequate ability in sight reading and should be able to sight read simple piano accompaniments.

CLARINET

CLARINET I. Rose: Forty Studies in Langenus, Virtuoso Studies, Langenus: Scale Studies. Weber: Concertino; Fantasy and Rondo.

CLARINET II. Rose: Twenty Studies after Rode. Jeanjean; Twenty-five Studies. Perrier: Thirty Studies after Bach, Handel, Dont, etc. Orchestra studies. Weber: Concerti.

CLARINET III. Jeanjean: Eighteen Studies. Perrier: Collection of Twenty Sonatas. Orchestra Studies. Brahms: Sonatas.

CLARINET IV. Jeanjean: Sixteen Studies in the Modern Style. Perrier: Twenty-two Studies in the Modern Style. Continue Twenty Sonatas. Bach: Four Sonatas arranged for clarinet by Corroyez. Spohr and Mozart: Concerti. Debussy; Rhapsody for Clarinet.

TRUMPET

TRUMPET I. The prerequisite for this course is an embouchure already well formed approximately in the center of the mouth with no physical characteristics which would impair ultimate potential achievement. The emphasis in this grade is upon a review, if necessary, of material listed in the Preparatory Department with the purpose of acquiring a correct and lasting command of the fundamental skills. The adaptation and study of a daily practice routine suitable to each individual, using additional material by introduction to transposition by clefs.

TRUMPET II. Concentration upon basic technique; slurs, scales, chords, intervals, single, double and triple articulations in the cycle of major and minor keys—using standard works such as Arban, St. Jacone and Clarke.

The development of tone production and its application to a variety of styles, using as material vocalises, lieder of Schubert, Brahms, Schumann and others, and melodic studies by Duhem. Continued study of transposition by clef using the Williams School of Transposition and orchestral trumpet parts.

TRUMPET III. The study of etudes from more advanced sections of Wurm, Laurent, Chavanne, Fricke, Clarke, Petit, Arban and St. Jacone. Solo repertory by Goedcke, Scriabin, Wormser, Busser, Fitzgerald, Vidal, Barat, Goeyens and Boeck.

Continuation of transposition by clef.

TRUMPET IV. Advanced etudes by Charlier, Clarke, Pietzach, Laurent, Petit, and others. Concerti and Sonatas by Pilas, Feldman, Goedcke, Fitzgerald, Haydn, Hindemith. Intensive concentration upon transposition by clef, using Etudes of Sachse and orchestral trumpet parts.

TROMBONE

TROMBONE I. Clef work covering all scales and chords; intensive study of slurs and legato playing for relaxation of embouchure; exercises in breath control; exercises in surety of attack in various intervals; songs and standard solos. Muller, King, Blume methods. Rochut, Book I.

TROMBONE II. Additional clef work; pieces for two or more trombones; special transcriptions of vocal technical studies. Lafosse, Blume, Rochut, Book II, Muller, Blasewitsch methods.

TROMBONE III. Advanced technical studies; intensive study of orchestra parts. Group playing. Couillaud; Rochut, Book No. 3; Blusser, Blume, Lefosse methods.

TROMBONE IV. Study of the "F" trombone; advanced studies in passing from one clef to the other; etudes in all rhythms and styles; concertos by Bigot, Salzedo, Saint-Saens, Stojowski; Flandrin method; Blasewitsch studies; symphonic works.

Students will be enabled to play effectively in any key and to interpret the music of the masters in all styles and periods. The student will be enabled to play effectively in any key and to interpret the music of the masters in all styles and periods.

NON-DEPARTMENTAL

13. **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; spring; arranged.

21-22-23. **MEDICAL CADET CORPS BASIC AND TECHNICAL TRAINING.** While accorded noncombatant status, Seventh-day Adventists believe in serving their country in any capacity which does not include the active bearing of arms. This course is intended to prepare young men to render acceptable service to their country along noncombatant lines. Principles of first aid; instruction in the care of the wounded; personal and camp hygiene; close order, physical, and litter drill. One-half credit; autumn, winter, spring; arranged.

41-42-43. **LIBRARY METHODS.** Instruction 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; T.Th., 11:10.

71, 72, 73. **MEDICAL CADET CORPS ADVANCED COURSE.** Men in this class act as the noncommissioned officers of the beginning class. Instruction in the art of leadership, commanding, and administration. Prerequisite: Medical Cadet Corps 21-22-23. Basic conditioning is advised. One-half credit; autumn, winter, spring; arranged.

NURSING

For complete information concerning the School of Nursing and course descriptions, see pages 123 to 130.

PHYSICAL EDUCATION AND RECREATION

MR. WINTER, MR. DAHLBECK

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 in physical education and minors in physical education or recreation are available.

MAJOR REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE:

		Credits
Anatomy	84	3
Kinesiology	85	3
Care and Prevention of Injuries	92	3
Professional Activities	97, 98, 99	6
Advanced Professional Activities	141, 142, 143	6
Intramural Activities and Officiating	94	3
Physiology of Exercise	133	3
Foundations of Physical Education	161	3
Tests and Measurements in Physical Education	162	3
Administration of Physical Education and Health in Secondary Schools	163	3
Seminar	192, 193	2
Methods of Teaching Physical Education	197	1
Elective Credits		7
Total		46

The following courses are also required:

Home Economics 1	3
Biological Sciences 85	3

The minor is to be chosen in counsel with the head of the department.

MINOR REQUIREMENTS IN PHYSICAL EDUCATION:

A minimum of 27 credits including courses 97, 98, 99; 161, 162, 163; and 9 upper division credits.

MINOR REQUIREMENTS IN RECREATION:

A minimum of 27 credits including courses 97, 98, 99; and 161.

1-2-3. FRESHMAN PHYSICAL EDUCATION. Calisthenics, games and contests in season. One-half credit; autumn, winter, spring; Men, Sec. A, T.Th., 10:15; Sec. B, T.Th., 11:10. Women, Sec. A, T.Th., 8:25; Sec. B, T.Th., 9:20; Sec. C, T.Th., 3:00; Sec. D, T.Th., 1:00.

4-5-6. DEVELOPMENTAL PHYSICAL EDUCATION. A course outlined specifically for those who have scored low in the entrance physical

fitness examination or those interested in correcting remediable defects. One-half credit; autumn, winter, spring; arranged.

7, 8, 9. **RESTRICTED PHYSICAL EDUCATION.** A course outlined for those unable to take regular Freshman Physical Education. One-half credit; autumn, winter, spring; arranged.

ACTIVITY COURSES

The remainder of the Physical Education requirements for all students may be selected from activity courses. The beginning courses will deal with rules, nomenclature and special techniques of the activity as well as considerable time in actual participation in the activity. Advanced students will be held responsible for all the requirements of the beginners and must display superior ability to qualify for the advanced class. All activity courses, with exception of skiing, carry one-half credit. Majors or minors in P.E. may make arrangements for one credit in activity courses by doing extra work. Permission to register for more than one activity course per quarter must be obtained from the head of the department.

51, 53. **GOLF.** Autumn, spring; M.W., 2:00; T.Th., 2:00.

52. **BASKETBALL.** Winter; Men, M.W., 4:00. Women, T.Th., 4:00.

54, 55, 56. **BEGINNING SWIMMING.** Autumn, winter, spring; arranged.

57, 58, 59. **WEIGHT LIFTING.** Autumn, winter, spring; arranged.

61, 62, 63. **BADMINTON.** Autumn, winter, spring; Sec. A, M.W., 11:10; Sec. B, T.Th., 5:00.

64, 65, 66. **BEGINNING TUMBLING.** Autumn, winter, spring; arranged.

67, 68, 69. **ROLLER SKATING.** Autumn, winter, spring; T.Th., 7:30.

71. **TOUCH FOOTBALL.** Autumn; arranged.

72. **SKIING.** One credit; winter; arranged.

73. **TENNIS.** Spring; Men, Sec. A, M.W., 8:25; Sec. B, M.W., 10:15; Sec. C, M.W., 11:10; Women, Sec. A, T.Th., 7:30; Sec. B, T.Th., 8:25; Sec. C, T.Th., 10:15; Sec. D, T.Th., 11:10.

74, 75, 76. **TUMBLING AND APPARATUS.** Autumn, winter, spring; arranged.

77, 78, 79. **TRAMPOLINE.** Autumn, winter, spring; arranged.

81, 82. **VOLLEYBALL.** Men, autumn, M.W., 4:00; winter, M.W., 3:00. Women, autumn, T.Th., 4:00.

83. **ARCHERY.** Spring; T.Th., 3:00.

86. **WATER SAFETY.** Spring; arranged.

89. **BASEBALL.** Spring; M.W., 3:00.

90. **SOFTBALL.** Spring; Men, M.W., 4:00. Women, T.Th., 3:00.

95, 96. **LIFE SAVING.** Winter, spring; arranged.

100. **TRACK AND FIELD SPORTS.** Spring; arranged.

101, 103. **ADVANCED GOLF.** Autumn, spring; arranged.

102. **ADVANCED VOLLEYBALL.** Winter; Men, M.W., 3:00. Women, T.Th., 4:00.

107, 108, 109. **ADVANCED TUMBLING.** Autumn, winter, spring; arranged.

112. **ADVANCED SKIING.** One credit; winter; arranged.

115. **ADVANCED BASKETBALL.** Winter; arranged.

117, 118, 119. **ADVANCED SWIMMING.** Autumn, winter, spring; arranged.

THEORY COURSES

*84. **ANATOMY.** Gross anatomy: A study of the skeletal and muscular structure of the human anatomy. Three credits; autumn; T.Th., 7:30. Laboratory, arranged.

*85. **KINESIOLOGY.** Study of joint and muscular mechanism action of muscles involved in fundamental movements. Effect of gravity and other forces on motion. Prerequisite: 84. Three credits; winter; M.W.F., 7:30.

91. **PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL.** Preparation and administration of the activity program at the elementary level. Three credits; autumn; T.Th., 11:10. Laboratory, arranged.

*92. **CARE AND PREVENTION OF INJURIES.** First aid, conditioning, bandaging, and massage. Three credits; winter; T.Th., 11:10. Laboratory, arranged.

*93. **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; T.Th., 11:10. Laboratory, arranged.

94. **INTRAMURAL ACTIVITIES AND OFFICIATING. Mechanics of intramural organization and the art of officiating the various sports activities. Three credits; autumn; M.W.F., 10:15.

*97, 98, 99. **PROFESSIONAL ACTIVITIES.** Primarily for students majoring or minoring in Physical Education or Recreation. Methods, techniques, and the skills involved in various activities of the physical education program. Two credits; autumn, winter, spring; M.-Th., 1:00.

*133. **PHYSIOLOGY OF EXERCISE.** Physiological results of muscular exercise. Prerequisite: Biological Sciences 85. Three credits; spring.

141, 142, 143. **ADVANCED PROFESSIONAL ACTIVITIES. Primarily for students majoring or minoring in Physical Education or Recreation. Methods, techniques, and advanced skills involved in various activities of the physical education program. Two credits; autumn, winter, spring; M.-Th., 1:00.

161. **FOUNDATIONS OF PHYSICAL EDUCATION. History and

*Offered only when school year ends with odd number.

**Offered only when school year ends with even number.

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; M.W.F., 7:30.

****162. 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. Three credits; winter; M.W.F., 7:30.

****163. 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; M.W.F., 7:30.

191. SPECIAL PROBLEMS. Selected problems in health, physical education, or recreation. One to three credits any one quarter. (No more than three hours will be allowed in any one field.) Arranged.

192, 193. 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; arranged.

197. METHODS OF TEACHING PHYSICAL EDUCATION. Observation of practices in physical education classes. Class recitation by appointment. One credit; arranged.

RECREATION

***105. COMMUNITY RECREATION.** A course intended to fill the need for recreational leadership among our young people. Intensive study of recreational problems among our youth. Three credits; winter; arranged.

123. 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; arranged.

124, 125, 126. 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. Various hobby crafts, such as leathercraft, plastic craft, wood carving, textile painting, lapidary, and others, will be offered. Two credits; autumn, winter, spring; M.W., 4:00-6:00.

153. 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 123. Prerequisite: 123 and permission of instructor. Two credits; spring; arranged.

164, 165, 166. ADVANCED ARTS AND CRAFTS. Continuation of 124, 125, 126, with special emphasis upon teaching methods, preparation of teaching aids, sources of material, cost, etc. Two credits; autumn, winter, spring; arranged.

***174, 175, or 176. RECREATIONAL LEADERSHIP.** Practical recreation direction in connection with the community recreation program of College Place. Two credits maximum; autumn, winter or spring; arranged.

*Offered only when school year ends with odd number.

**Offered only when school year ends with even number.

PHYSICS

MR. BROWN, MR. BARNETT

The department offers a major in physics and in engineering physics. Students with a general interest in the field or those planning to teach should major in physics and choose the Bachelor of Arts or the Bachelor of Science degree. The Bachelor of Science 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:

	Credits
Elementary Physics	41, 42, 43 or 51, 52, 53
Electricity and Magnetism	101, 102
Electrical Measurements	101A, 102A
Theoretical Mechanics or Engineering Mechanics	151, 152 ME 51-52
Thermodynamics or Engineering Thermodynamics	163 ME 112, 113
Optics	171, 172, 173
Nuclear Physics	183
Nuclear Physics Laboratory	183A
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	45-51

The following courses are also required:

Chemistry	21-22-23.
Industrial Education	71-72-73.
Mathematics	51-52-53.

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 major requirements are the same as those listed for the Bachelor of Arts degree.

ENGINEERING PHYSICS MAJOR REQUIREMENTS FOR A BACHELOR OF SCIENCE DEGREE:

	Credits
Introductory Physics	51, 52, 53
Electricity and Magnetism	101, 102
Electrical Measurements	101A, 102A
Engineering Electronics	111, 112, 113
Electronics Laboratory	111A, 112A, 113A
Theoretical Mechanics	151, 152
Thermodynamics	163
Optics	171, 172, 173
Nuclear Physics	183

Nuclear Physics Laboratory	183A	2
Special Problems in Physics	190	3
		—
		60

The following courses are also required:

- Chemistry 21-22-23.
- Industrial Education 71-72-73.
- Mathematics 161, 162, 163.
- Mechanical Engineering 1-2-3.

Candidates for this degree must meet all general graduation requirements with the exception of Education, Language, Literature, and Psychology.

MINOR REQUIREMENTS:

A minimum of 27 credits.

22. SURVEY OF PHYSICAL SCIENCE. Descriptive treatment of the more prominent elementary principles of astronomy, geology, physics, and chemistry to develop the scientific cultural background of students who are not science majors. Does not apply on a Physics major or minor. Four credits; winter; M.W.F., 1:00.

41, 42, 43. 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 1 or a satisfactory score on the mathematics placement test. Physics 41 prerequisite for 42 or 43. Corequisite: 41A, 42A, 43A. Three credits; autumn, winter, spring; M.W.F., Sec. A, 7:30; Sec. B, 8:25.

41A, 42A, 43A. GENERAL PHYSICS LABORATORY. Laboratory work integrated with 41, 42, 43. One credit; autumn, winter, spring; Sec. A, M., 2:00-5:00; Sec. B, T., 2:00-5:00; Sec. C, W., 2:00-5:00.

51, 52, 53. 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 51 prerequisite for 52 or 53. Course 51A, 52A, 53A, and Mathematics 51-52-53 corequisite. Three credits; autumn, winter, spring; M.W.F., 10:15.

51A, 52A, 53A. INTRODUCTORY PHYSICS LABORATORY. Laboratory work accompanying 51, 52, 53. One credit; autumn, winter, spring; Sec. A, Th., 8:30-11:00; Sec. B, Th., 2:00-5:00.

Physics 41, 42, 43 or 51, 52, 53 and Mathematics 51-52-53 are prerequisites for all courses numbered 100 or above.

101, 102. ELECTRICITY AND MAGNETISM. Basic principles of electricity, magnetism, alternating and direct current circuit analysis, and electric and magnetic properties of matter. Three credits; autumn, winter; M.W.F., 7:30.

101A, 102A. **ELECTRICAL MEASUREMENTS.** Laboratory work accompanying 101, 102 to familiarize the student with the apparatus and techniques for the basic direct and alternating current measurements. One credit; autumn, winter; M., 2:00-5:00.

111, 112, 113. **ENGINEERING ELECTRONICS.** Electron ballistics, electron emission, characteristics of high vacuum and gaseous electron tubes, basic rectifier and amplifier circuits, audio amplifiers, tuned amplifiers, oscillators, semiconductor rectifiers and amplifiers. Prerequisite: 101, 102, 101A, 102A, or Electrical Engineering 64-65-66. Three credits; autumn, winter, spring; M.W.F., 11:10.

111A, 112A, 113A. **ELECTRONICS LABORATORY.** Laboratory work accompanying 111, 112, 113. The student designs, constructs, and tests rectifier, amplifier, oscillator, and other electronic circuits. One credit; autumn, winter, spring; Th., 2:00-5:00.

151, 152. **THEORETICAL MECHANICS.** A mathematical course covering the basic principles of force, work, motion, energy, and the statics and dynamics of particles and rigid bodies. Three credits; autumn, winter; M.W.F., 10:15.

163. **THERMODYNAMICS.** Basic principles of temperature and heat measurement, laws of thermodynamics, behavior of ideal gases, change of state, thermodynamic properties of matter. Four credits; spring; M.-Th., 10:15.

*171, 172, 173. **OPTICS.** Reflection, refraction, dispersion, diffraction, interference, polarization, spectra, and a brief treatment of the electromagnetic and quantum theories of radiation. Three credits; autumn, winter, spring; T.Th., 10:15. Laboratory, arranged.

183. **NUCLEAR PHYSICS.** Atomic structure, nuclear structure, characteristics of alpha, beta, and gamma radiation, radioactivity, nuclear reactions, uses of radioisotopes, nuclear energy. Four credits; spring; M.-Th., 1:00.

183A. **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; M.W., 2:00-5:00.

190. **SPECIAL PROBLEMS IN PHYSICS.** Directed independent study or laboratory investigation on selected advanced topics. Registration only on permission of the instructor. Credit arranged.

*Not offered 1958-1959.

RELIGION

For complete information concerning the School of Theology, major and minor requirements, and course descriptions, see pages 119 to 122.

SECRETARIAL SCIENCE

MISS RITTENHOUSE, MISS ANDREWS, 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 the knowledge and skills necessary for stenographers and general office workers.

MAJOR REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

		Credits
Typing	11-12, 13	2-6
Shorthand	21-22-23 or 31-32	4-15
Filing	42	2
Office Machines I	43	2
Advanced Typewriting	61-62-63	6
Advanced Shorthand and Transcription	97-98-99	9
Secretarial Procedures	157-158-159	9
Shorthand Reporting	167-168	6
Denominational Reporting or Medical Reporting	169 179	3
Problems in Secretarial Science	181, 182 or 183	1-2
Upper division electives		2
		46-62

The number of credits required in courses 11-12, 13 and 21-22-23 depends upon the amount of previous work completed in secondary school. The following courses are also required: Business Administration 91-92-93; 51-52-53 or 14-15; and 81, 82, or 83.

Students preparing for medical secretarial work must complete the following courses before taking Secretarial Science 179.

Elementary Zoology	1-2-3	12
Microbiology	7	5
Anatomy, Physiology and Health	52-53	10
Parasitology	177-178	6

MINOR REQUIREMENTS:

A minimum of 27 credits including courses 43, 61-62-63, 97-98-99, and 157-158-159.

11-12. BEGINNING TYPEWRITING. An introductory course with emphasis on basic theory and skills for personal and vocational use. Two credits; autumn, winter; Sec. A, M.-F., 7:30; Sec. B, M.-F., 11:10.

13. INTERMEDIATE TYPEWRITING. A continuation of courses 11-12. Prerequisite: 11-12 or equivalent. Two credits; spring; Sec. A, M.W.F., 7:30; Sec. B, M.W.F., 11:10.

21-22-23. SHORTHAND THEORY. A course covering Gregg Shorthand principles with emphasis on correct writing and transcribing of shorthand notes. Courses 11-12, 13 must be taken concurrently unless the student has had the equivalent. Five credits; autumn, winter, spring; Sec. A, M.-F., 8:25; Sec. B, M.-F., 10:15.

31-32. INTERMEDIATE SHORTHAND. A course designed for students who have taken shorthand previously but who are not qualified for courses 97-98-99. Credit will not be given for both courses 21-22-23 and 31-32. Two credits; autumn, winter; T.Th., 7:30.

42. FILING. A course in the theory and practice of the modern systems of filing. Two credits; winter; Th., 11:10. Laboratory, arranged.

43. OFFICE MACHINES I. Instruction and practice in the operation of voicescription and duplicating machines. Prerequisite: 11-12, 13. Two credits; spring; Th., 11:10. Laboratory, arranged.

55 or 56. SWITCHBOARD. Instruction in the organization and operation of a PBX system. Thirty hours switchboard practice with special instruction on the development of a pleasing telephone personality. One credit; winter or spring; arranged.

61-62-63. ADVANCED TYPEWRITING. A continuation of courses 11-12, 13 with emphasis on increase of speed, accuracy, and skill in the production of business papers. Prerequisite: 11-12, 13 or equivalent. Two credits; autumn, winter, spring; M.W.F., 1:00.

77, 78, or 79. ELECTRIC TYPEWRITING. Development of skill in the operation and use of the electric typewriter. Prerequisite: 61-62-63. Thirty hours per quarter. One credit; autumn, winter, or spring; arranged.

97-98-99. 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: 11-12, 13 and 21-22-23 or equivalent. Three credits; autumn, winter, spring; M.W.F., 7:30-9:15.

131-132. BUSINESS COMMUNICATIONS. A study of the principles basic to effective communication with application to specific problems related to business. Two credits; autumn, winter; T.Th., 11:10.

144, 145, or 146. ADVANCED OFFICE MACHINES. A laboratory course for students who desire to develop vocational proficiency in the operation of a specific office machine. Prerequisite: 43. One credit; autumn, winter, or spring; arranged.

157-158-159. 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: 11-12, 13; 21-22-23; and 42, 43. Three credits; autumn, winter, spring; T.Th., 10:15. Laboratory, arranged.

167-168. **SHORTHAND REPORTING.** A course designed to build skill in reporting and transcribing congressional and other technical material at the higher speeds. Prerequisite: 61-62-63 and 97-98-99 or equivalent. Three credits; autumn, winter; M.W.F., 10:15.

169. **DENOMINATIONAL REPORTING.** A study of the work of the denominational secretary, specialized vocabulary, and reporting procedures. Prerequisite: 21-22-23 and 97-98-99 or equivalent. Three credits; spring; M.W.F., 10:15.

*179. **MEDICAL REPORTING** A study of the duties of the medical secretary and the development of a basic medical vocabulary. Prerequisite: 21-22-23 and 97-98-99 or equivalent and Biological Sciences 52-53. Three credits; spring; M.W.F., 10:15.

181, 182, or 183. **PROBLEMS IN SECRETARIAL SCIENCE.** A course for senior 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; arranged.

197Typ. **METHODS OF TEACHING TYPEWRITING.** A survey of the objectives, methods, and techniques of teaching typewriting in the secondary school. Two credits; autumn; T.Th., 7:30.

*197Sh. **METHODS OF TEACHING SHORTHAND.** Consideration of materials and methods in the teaching of shorthand in the secondary school. Two credits; autumn; T.Th., 7:30.

*Not offered 1958-1959.

SPEECH

MR. PENNER, MR. BALHARRIE, MRS. LAY

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 1-2 or 5-6 and 9 upper division credits.

1-2, or 5-6. **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; Sec. A, T.Th., 7:30; Sec. B, T.Th., 8:25; Sec. C, T.Th., 10:15; Sec. D, T.Th., 11:10. Two credits; winter, spring; Sec. E, M.W., 8:25; Sec. F, T.Th., 1:00.

51. **PARLIAMENTARY PROCEDURE.** The theory and practice of parliamentary law, with much participation by all class members in an actual organization. Projects include the forming of a temporary and permanent organization, and the writing of a constitution. Two credits; autumn; M.W., 8:25.

53. 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; spring; T.Th., 7:30.

56. DISCUSSION AND DEBATE. The theory and methods of group discussion; practice in forums, committee meetings, panels; the essentials of public debate; practice in research, analysis, organization, delivery. Two credits; spring; T.Th., 8:25.

84-85-86. TEACHERS' SPEECH. A course designed especially for teachers. Study of speech disorders, their diagnosis, and their treatment. Organization and delivery of speeches and consideration of the speech situations which teachers meet. Two credits; autumn, winter, spring; T.Th., 10:15.

112. SPEECH COMPOSITION AND ANALYSIS. A comprehensive treatment of speech organization, content, and delivery. Three credits; winter; M.W.F., 7:30.

113. EXTEMPORE SPEECH. A course stressing the practical application of speech to the student's major field of interest. It includes the study of the formal report as well as the study of speeches for social and business occasions with practice both inside and outside the classroom. Two credits; spring; T.Th., 11:10.

123. PERSUASIVE SPEAKING. Study of analysis and investigation of supporting material; participation in group discussion for problem solution, organization of a persuasive campaign. The value and practice of emotional content in persuasive speaking. Three credits; spring; M.W.F., 11:10.

141, 142. ADVANCED PUBLIC 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; M.W.F., 10:15.

161-162. RADIO PRODUCTION. A study of microphone technique, practice in announcing, and preparation and presentation of programs for broadcasting. Practical experience in announcing programs prepared for the campus radio station and for the Walla Walla stations. Prerequisite: 1-2 or 5-6. Three credits; autumn, winter; M.W., 11:10. Laboratory, M., 2:00-5:00.

194, 195, 196. SPECIAL PROBLEMS IN SPEECH. A course designed to offer the advanced student opportunity to pursue investigation in special fields under the direction of the department. One or two credits each quarter; autumn, winter, spring; arranged.

SCHOOL OF THEOLOGY

MR. HEUBACH, MR. ALCOCK, MR. BALHARRIE, MR. GROVE, MR. LITKE, MR. LUDGATE, MR. STOEHR

The School of Theology is a division of Walla Walla College and has the same general and academic regulations. Application for admission is made through the Admissions Committee of the College.

Selection of candidates for the ministry is made on the basis of scholarship, spiritual qualities, social sympathies and skills, and cultural refinement. Students are admitted to upper division standing in the School of Theology only upon approval of the Theology faculty.

The Master of Arts degree from the Seventh-day Adventist Theology Seminary is a prerequisite of the ministerial internship. A grade-point average of 2.50 is required for regular admission to the Seminary.

Students on the undergraduate level are expected to average 16 credits per quarter and maintain a 2.00 (C) grade-point average. Any student registered for less than 10 credits is not considered in regular standing. Theology students are urged to meet denominational teacher certification requirements by choosing appropriate courses in education as elective credit.

All students must successfully complete a senior comprehensive examination and meet all degree requirements listed on pages 41-44.

Those wishing to become Bible workers should meet all religion major requirements. A modern language may be substituted for the Greek requirement.

MAJOR REQUIREMENTS FOR A BACHELOR OF ARTS DEGREE:

	Credits
Life and Teachings of Jesus	4, 5, 6
Fundamentals of Christian Belief	51, 52, 53
Early Church History	111-112
Daniel and the Revelation	113
Spirit of Prophecy and Denominational History	121, 122, 123
Hebrew Prophets	134, 135, 136
Church Administration	143
Philosophy of Religion	161, 162
Theory of Evangelism	181-182
Field Evangelism	181A-182A-183A
New Testament Epistles or Biblical Languages	184, 185, 186 121, 122, 123 or 124, 125, 126
Seminar	192, 193
	2
	60

The following courses are also required:

Biological Science	159	2
Business Administration	14-15	6
Conducting	62	1
Education	166	2
History	1, 2, 3; 51, 52, or 53; 111, and upper division elec- tives	21
Language	7-8-9; 61, 62, 63	24
Political or Social Science		3
Speech	1-2 or 5-6; 51; 141, 142, and upper di- vision electives	15

MINOR REQUIREMENTS:

A minimum of 30 credits including 9 upper division credits.

Courses 51, 52, 53, or the equivalent, and 12 credits chosen from courses 4, 5, 6; 11, 12-13 or 111-112; 113; 121, 122, 123; 134, 135, 136; 161, 162, 163; and 184, 185, 186 must be included in the minor.

1, 2, 3. BIBLICAL BACKGROUNDS. An introductory course to the life and times of the Old Testament beginning with creation and closing with the events immediately preceding the birth of Jesus. Two credits; autumn, winter, spring; T.Th., 8:25.

4, 5, 6. 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; Sec. A, T.Th., 8:25; Sec. B, T.Th., 11:10; Sec. C, M.W., 8:25; Sec. D, T.Th., 8:25; Sec. E, T.Th., 10:15; Sec. F, T.Th., 7:30; Sec. G, T.Th., 7:30; Sec. H, T.Th., 11:10.

11, 12-13. DANIEL AND THE REVELATION. An elementary course in the study of these two books and their prophecies as related to application and fulfillment in world history. Two credits; autumn, winter, spring; M.W., 10:15.

51, 52, 53. 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 comprehensive groundwork in the fundamental doctrines held by the Seventh-day Adventist denomination. Two credits; autumn, winter, spring; Sec. A, T.Th., 10:15; Sec. B, T.Th., 1:00; Sec. C, T.Th., 7:30; Sec. D, T.Th., 11:10; Sec. E, T.Th., 7:30; Sec. F, T.Th., 8:25; Sec. G, T.Th., 1:00.

93. PERSONAL EVANGELISM. A course designed for young men and women 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 in class and field activities. Special attention given to Junior and Youth Evangelism. Three credits; spring; M.W.F., 8:25.

111-112. **DANIEL AND THE REVELATION.** An advanced course on the historical setting and significance of these books. Church history is studied in relation to the prophetic features of these books to provide the student with a clearer insight into contemporary religious conditions. Three credits; autumn, winter; M.W.F., 8:25.

113. **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 the rise of the papacy. Three credits; spring; M.W.F., 8:25.

121, 122, 123. **SPRIT 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; Sec. A, T.Th., 8:25; Sec. B, T.Th., 8:25; Sec. C, T.Th., 10:15.

134, 135, 136. **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. Three credits; autumn, winter, spring; M.W.F., 7:30.

143. **CHURCH ADMINISTRATION.** Study of church organization, election and duties of church officers, church boards, business meetings and finances, and 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; M.W.F., 10:15.

151. **RELIGION IN AMERICA.** In this course consideration is given to the rise of denominations in America, the European background, the religious diversity in the colonies, slavery controversy and resultant church schisms, the great religious awakenings and revivals, and the struggle for religious liberty. Three credits; autumn; M.W.F., 7:30.

152. **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; M.W.F., 7:30.

153. **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; M.W.F., 7:30.

155. **MANUSCRIPTS OF THE BIBLE.** A thorough review of the manuscripts that gave us the Word of God. The translations of the Bible are examined and specific attention is focused on the significant points for the minister and Bible instructor. Recent discoveries and recent work on manuscripts are reviewed. Two credits; winter; T.Th., 1:00.

161, 162, 163. **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. Three credits; autumn, winter, spring; Sec. A, M.W.F., 8:25; Sec. B, M.W.F., 10:15.

181-182. **THEORY OF EVANGELISM.** Advanced study in the art of preaching, aiming at some proficiency in Bible exegesis and evangelism. Detailed attention will be given to the various phases of evangelistic work and the problems which confront an evangelist. Guidance will be given in methods of evangelistic advertising, the conducting of public efforts, and pastoral work. This course is definitely planned for young men who desire to make the gospel ministry their vocation. Prerequisite: 51, 52, 53; Speech 141, 142. Two credits; autumn, winter; T.Th., 11:10.

181A-182A-183A. **FIELD EVANGELISM.** Experience in evangelism is obtained by participating in the public and personal aspects of evangelistic work conducted in near-by communities and churches. One credit; autumn, winter, spring; arranged.

184, 185, 186. **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; T.Th., 10:15.

192, 193. **SEMINAR IN RELIGION.** A review of principal areas in the field of religion and the problems of the young minister at home and abroad. Assigned topics for discussion. One credit; winter, spring; arranged.

SCHOOL OF NURSING

MR. HANSON, MRS. BOECK, MRS. BRAUN, MISS BRENNER, MRS. DRAKE, MISS EMERY, MISS FROMAN, MRS. JONES, MISS KNAPP, MISS MILLER, MR. NULL, MISS SCHERESKY, MISS STAFFORD, MISS STRATTON, MISS YOUNG, MRS. YOUNG.

GENERAL INFORMATION

In recent years the trend in nursing education has been to emphasize higher professional standards and requirements. The term "professional," as applied to nursing education, generally refers to nursing schools operated by institutions of higher learning. The Walla Walla College School of Nursing is of collegiate level and offers preclinical and postclinical work on the main campus in College Place with clinical work in the hospital division of the School of Nursing at the Portland Sanitarium and Hospital, Portland, Oregon.

The School of Nursing and the curriculum are fully accredited or approved by the following:

National Nursing Accrediting Service

Collegiate Board of Review of the Department of Baccalaureate and Higher Degree Programs of the National League for Nursing

Washington State Board of Professional Nurse Registration

Association of Seventh-day Adventist Colleges and Secondary Schools

The clinical division of the School of Nursing at the Portland Sanitarium and Hospital is approved by the following:

American College of Surgeons

American Hospital Association

American Medical Association

Council on Medical Education and Hospitals of the American Medical Association for Internships

ORGANIZATION

The nursing curriculum may be completed within four calendar years. Five quarters are spent on the main campus and ten quarters at the Portland division. Upon completion of the required curriculum the student is eligible to write denominational and State Board examinations for the R.N., and will receive the Bachelor of Science degree.

All students registered in the School of Nursing are subject to the general regulations of the College.

ADMISSION

Formal application for admission is required on a form supplied by the Registrar of the College. A recent photograph and a \$2.00 fee must be included. The chief factors considered by the Admissions Committee of the College are

good character, scholastic achievement, intellectual ability, and good health. Notification of acceptance is sent promptly after the applicant's records of previous work and recommendations have been received by the College. 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. Students who are allowed to register temporarily may not be permitted to remain in college longer than one quarter without presenting a transcript of previous work. The School of Nursing admits qualified male students in both the College and Clinical Divisions. The program of studies is modified to meet their educational needs.

ENTRANCE REQUIREMENTS

Applicants for admission to the School of Nursing shall have been graduated from a recognized secondary school with the following pattern of subjects included in the units presented for entrance:

English	3 units
Mathematics	2
History	1
Science	1 (biology or physics recommended)
Additional Academic Units	2

Prior to initial registration, the student must complete the entrance examinations of the College, which include psychological, English and mathematics placement, and physical examinations. In addition, the National League for Nursing Achievement Tests are administered to all students in the School of Nursing.

Completion of the first three 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 with their training in the Clinical Division.

ADMISSION WITH ADVANCED STANDING

Upon completion of approximately one year of college work including the courses required for entrance to the Clinical Division, Canadian Union College students 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 or to communicate with the Dean, School of Nursing, Walla Walla College, College Place, Washington. Applicants seeking admission with advanced standing must have their applications approved by the Admissions Committee of the College.

CLINICAL DIVISION

The Portland Sanitarium is a modern, scientifically equipped hospital with more than ten thousand patient admissions per year. This offers broad and diversified clinical experience for the student nurse. Pediatric experience is provided by affiliation with the School of Nursing, University of Oregon Medical School at Doernbecher Memorial Hospital for Children; psychiatric experience at the State Psychiatric Hospital at Salem; and tuberculosis experience at the School of Nursing, University of Oregon Medical School, University State Tuberculosis Hospital. Male students affiliate for urology at the University of Oregon Medical School.

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 41 to 46 of this Bulletin.

COLLEGE CAMPUS DIVISION

FIRST YEAR

Autumn Quarter	Credits	Winter Quarter	Credits	Spring Quarter	Credits
Fund. Chr. Belief	2	Fund. Chr. Belief	2	Fund. Chr. Belief	2
Freshman Comp.	3	Freshman Comp.	3	Freshman Comp.	3
Microbiology	5	Anat., Phys., & Hlth.	5	Anat., Phys., & Hlth.	5
Gen. Chemistry	3	Gen. Chemistry	3	Gen. Chemistry	3
General Psychology	3	Introd. to Com. Hlth.	3	Survey of Sociology	3
Physical Education	½	Physical Education	½	Physical Education	½
	16½		16½		16½

CLINICAL DIVISION

No. 4th Quarter	Credits	No. 5th Quarter	Credits
64 Introd. to Nursing	4	50 Min. of Jesus in Healing	2
76 Physical Therapy	2	66 Introd. to Nursing	3
80 Nutrit. in Hlth. & Dis.	2	80 Nutri. in Hlth. & Dis.	2
	—	92 Medical Nursing	3
	8	93 Medical Nursing Pract.	4
		96 Surgical Nursing	2
			16

No. 6th Quarter	Credits	No. 7th Quarter	Credits
5 Social Problems	3	99 Op. Rm. Tech. & Pract.	5
54 Spir. Min. in Nrsdg. Care	2	100 Adv. Med. & Surg. Spec.	6
94 Medical Nursing	3	117 Art of Personal Evangel.	2
97 Surgical Nursing Pract.	4		—
98 Surgical Nursing	4		13
	—		
	16		

No. 8th Quarter	Credits	No. 9th Quarter	Credits
89 Diet Therapy Pract.	2	118 Obstetric Nursing	5
103 Adv. Med. Nrsdg. Pract.	4	119 Obstetric Nrsdg. Pract.	6
108 Commun. Dis. Nrsdg.	3		—
118 Art of Pers. Evangel.	2		11
	—		
	11		

No. 10th Quarter	Credits	No. 11th Quarter	Credits
124 Psychiatric Nursing	4	120 Introd. to Child Behav.	2
125 Psychiatric Nrsdg. Pract.	6	122 Pediatric Nursing	4
	—	123 Pediatric Nrsdg. Pract.	6
	10		—
			12

No. 12th Quarter	Credits	No. 13th Quarter	Credits
107 Orthopedic Nrsdg. Pract.	2	105 Adv. Surg. Nrsdg. Pract.	4
110 Tuberculosis Nursing	3	117 Pub. Hlth. Nrsdg. Pract.	2-4
111 Tuberc. Nrsdg. Pract.	3	119 Art of Person. Evangel.	2
116 Instruct. Prep. for		133 Senior Nursing Pract.	4
Home Nursing	2	164 Hosp. Unit Manage.	3
	—		
	10		

COLLEGE CAMPUS DIVISION

Group I

14th Quar. (Winter)	Cr.	15th Quar. (Spring)	Cr.
Religion (U.D.)	3	Religion (U.D.)	3
Child & Youth Health	3	Com. Health Educ.	3
Hist. of Nursing	3	Trends in Nursing	3
Educ. Psychology	3	Cult. Foundations	3
Electives*	4	Electives*	4
	—		—
	16		16

Group II

14th Quar. (Summer)	Cr.	15th Quar. (Autumn)	Cr.
Religion (U.D.)	3	Religion (U.D.)	3
Hist. of Nursing	3	Com. Health Educ.	3
Educ. Psychology	3	Child & Youth Health	3
Cult. Foundations	3	Trends in Nursing	3
Electives*	4	Electives*	4
	—		—
	16		16

Note: Students will be rotated in clinical areas. Class hours and clinical practice average forty (40) hours a week. Two (2) hours of planned clinical instruction are given each week. Credit for clinical instruction is included in credit for clinical practice.

*Preferred electives: History, Literature, Speech, Art, Music, World Religions.

NURSING EDUCATION AND HEALTH EDUCATION

NURSING EDUCATION CURRICULUM

The curriculum in Nursing Education is offered to registered graduate nurses who have met the following prerequisites:

- Graduation from an accredited secondary school or its equivalent and with School of Nursing entrance requirements completed.
- Completion of the prenursing curriculum.
- Graduation from an accredited school of nursing.

Students who have been graduated from non-Collegiate schools and all students who expect to take graduate work, should plan to take the Graduate Nurse Qualifying Examination following the first quarter of residence. A charge is made for the cost of the test.

This curriculum is designed to help the graduate nurse prepare for positions in head nurse management, teaching, and supervision.

Students fulfilling the requirements in this curriculum may complete the work for the Bachelor of Science degree in four quarters. A minimum of 64 credits is required, of which 21 or more must be selected from Group A listed below. A total of 54 upper division credits is required for the curriculum.

*Preferred electives: History, literature, speech, art, music, world religions.

Group A. Improvement of Subject Mastery and Techniques

Number	Course	Credits
161	Ward Teaching and Management	3
167 or 169	Child and Youth Health	3
178 or 179	Community Health Education	3

155	Curriculum in Schools of Nursing	3
162	Supervision in Schools of Nursing	3
163	Organization and Administration of Schools of Nursing	3
173	or Health Administration	3
175 or 176	Trends in Nursing	3
	Group B. Studies in Individual Development and Group Relationships	
	Religion (upper division)	6
61, 62, or 63 Ed.	Educational Psychology	3
118 Ed.	Educational Evaluation	3
	Education (upper division)	3
	Speech	6
	History	6

Electives:

Upper division concentrations may be selected
from Biological Science, Home Economics, or
Physical Education 15

A Biological Science concentration may be met at the Biological Station of
the College at Anacortes during the summer quarter.

TWO-YEAR CURRICULUM IN NURSING EDUCATION

Graduate registered nurses meeting requirements "a" and "c" of the Nursing Education curriculum and who have not had prenursing subjects will be required to complete the following courses:

	Credits
General Chemistry	12
Microbiology	5
Freshman Composition	9
Education	6
Religion	6
Electives	10
	—
	48

HEALTH EDUCATION CURRICULUM

The Health Education Curriculum has been developed to meet the objectives of the denomination and the constantly growing demand for nurses prepared as health educators and leaders in our schools and conferences. The prerequisites for admission to this curriculum are the same as for the Nursing Education Curriculum.

Students fulfilling the above requirements may complete the work for the degree in four quarters. A minimum of 64 credits is required from the following courses. From Group A, 21 or more credits must be selected. Enough other upper division credits should be selected to total 54. It is recommended that they be taken from Groups A, B, and C. The other 10 credits may be upper or lower division. Courses preceded by an asterisk are required.

Group A. Improvement of Subject Mastery and Techniques

Number	Course	Credits
*167 or 169	Child and Youth Health	3
167A or 169A	Child and Youth Health Laboratory	1
*178 or 179	Community Health Education	3

173	Health Administration	3
171	School Health Education	3
249 Ed.	Mental Health in Education	2
157, 158, or 159	Directed Teaching	2-6
112 Ed.	Human Growth and Development	4
Group B. Studies in Individual Development and Group Relationships		
*166 Ed.	Introduction to Counseling	2
252 Ed.	or Counseling and Guidance	3
118 Ed.	or Educational Evaluation	3
*105 Soc. Sc.	Human Relations	2
104 Soc. Sc.	or The Field of Social Work	3
108 Soc. Sc.	or Cultural Foundations	3
165 Bus.	Personnel Management	3
*61, 62, or 63 Ed.	Educational Psychology	3
*	Religion (usually upper division)	6
*	Speech	4-6
Group C. Electives:		
171 or 173 Ed.	Principles of Audio-Visual Education	3
84-85-86 Eng.	News Writing	6
124, 125, 126 P.E.	Arts and Crafts	2-6
123 P.E.	Campcraft and Management	3
153 P.E.	Leadership in Camping and Campcraft	2
	History or Literature	3-6

GRADUATE STUDY

Nurses who have received the Bachelor of Science degree and who meet the requirements for admission to the Graduate Division of the College may pursue graduate study leading to a Master of Arts degree with a major in Education and areas of concentration in Health Education and Nursing Education. For further information consult with the department of Education or the Dean of the School of Nursing.

The courses required for the Bachelor of Science degree, Collegiate Nursing Curriculum, which are taught on the Portland Sanitarium and Hospital Division campus are described in the Walla Walla College School of Nursing Bulletin. Those offered on the Walla Walla College campus follow:

7. **MICROBIOLOGY.** The nature of bacteria and disease-producing organisms with their life habits and methods of reproduction. The relation of these organisms to disease in the human body. Five credits; autumn; Sec. A, M.-Th., 10:15; Sec. B, M.-Th., 11:10. Laboratory, Sec. A, M., 2:00-5:00; Sec. B, T., 2:00-5:00; Sec. C, Th., 2:00-5:00; Sec. D, S., 8:00-11:00.

51. **HISTORY OF NURSING.** A survey course in nursing history designed to meet the needs of the students in nursing. Three credits; autumn; M.W.F., 1:00.

52-53. **ANATOMY, PHYSIOLOGY, AND HEALTH.** This course is designed for those who will complete their nursing curriculum at Portland. A general survey of human anatomy and physiology. Health principles will be integrated in this course. Five credits; winter, spring; Sec. A, M.-Th., 10:15; Sec. B, M.-Th., 11:10. Laboratory, Sec. A, S., 8:00-11:00; Sec. B, M., 2:00-5:00; Sec. C, T., 2:00-5:00; Sec. D, W., 2:00-5:00; Sec. E, Th., 2:00-5:00.

85. **HUMAN PHYSIOLOGY.** A study of the functions of the human body, with practical application of this knowledge to everyday living. Three credits; winter; M.W.F., 8:25.

NURSING EDUCATION

155. **CURRICULUM IN SCHOOLS OF NURSING.** A course dealing with the general principles of construction, revision and administration of the curriculum in schools of nursing. Integration of the health point of view in the curriculum is considered. Three credits; winter; M.W.F., 1:00.

161. **WARD TEACHING AND MANAGEMENT.** Principles, procedures and problems of organization; methods for carrying out an effective clinical ward teaching program in a school of nursing. Three credits; autumn; M.W.F., 8:25.

162. **SUPERVISION IN SCHOOLS OF NURSING.** The principles underlying effective supervision. The problems of supervision and methods of supervision in the clinical field in a nursing school. Prerequisite: 161. Three credits; winter; M.W.F., 10:15.

163. **ORGANIZATION AND ADMINISTRATION OF SCHOOLS OF NURSING.** This course includes a study of the fundamental principles which underlie the organization and administration of schools of nursing with special reference to selection of students, nursing school budget, faculty, records, and educational policies. Three credits; spring; M.W.F., 8:25.

175 or 176. **TRENDS IN NURSING.** A seminar and conference class on trends in nursing. Analysis of the needs of the professional nurse. Nursing organizations are studied, and discussion of present conditions and problems in the field of nursing will be included. Three credits; winter; M.W.F., 11:10; spring; M.W.F., 10:15.

HEALTH EDUCATION

8. **INTRODUCTION TO COMMUNITY HEALTH.** An introduction to the health problems of a community, and the community resources available which offer the best solutions to these problems. Three credits; winter, M.W.F., 1:00.

14, 15 or 16. **HEALTH PRINCIPLES.** A study of the healthy, wholesome personality including the underlying principles governing the harmonious development of the human body. It includes our denominational health principles and stresses both personal and community health. Three credits; autumn; M.W.F., 10:15; winter; M.W.F., 10:15; spring; M.W.F., 8:25.

157, 158, or 159. **DIRECTED TEACHING.** Directed teaching in health subjects and nursing education as arranged. Adult home nursing classes may be included. Two to six credits; autumn, winter, spring, or summer; arranged.

167 or 169. **CHILD AND YOUTH HEALTH.** An analysis of the most important health problems of children and youth. A study of the principles, methods, and materials used in teaching health to these age groups. Practice given to selection, organization, and presentation of these materials. Three credits; autumn or spring; M.W.F., 7:30.

167A or 169A. **CHILD AND YOUTH HEALTH LABORATORY.** Practical experience in a laboratory situation is arranged for those electing this course. One credit; autumn or spring; arranged.

171. **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; M.W.F., 1:00.

173. **HEALTH ADMINISTRATION.** A study of the administration of health programs in secondary schools and colleges. Participation in health activities is included. Open to graduate nurses only. Three credits; spring; M.W.F., 10:15.

178 or 179. **COMMUNITY HEALTH EDUCATION.** 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; M.W.F., 7:30; spring; M.W.F., 11:10.

180. **MENTAL HYGIENE.** A study of the principles and methods of mental hygiene, including the prevention and control of mental illness, the promotion of mental health, and the development of mental health services. Open to students in the Department of Psychology and the Department of Education. Three credits; winter; M.W.F., 10:15; spring; M.W.F., 11:10.

181. **MENTAL HYGIENE.** A study of the principles and methods of mental hygiene, including the prevention and control of mental illness, the promotion of mental health, and the development of mental health services. Open to students in the Department of Psychology and the Department of Education. Three credits; winter; M.W.F., 10:15; spring; M.W.F., 11:10.

182. **MENTAL HYGIENE.** A study of the principles and methods of mental hygiene, including the prevention and control of mental illness, the promotion of mental health, and the development of mental health services. Open to students in the Department of Psychology and the Department of Education. Three credits; winter; M.W.F., 10:15; spring; M.W.F., 11:10.

183. **MENTAL HYGIENE.** A study of the principles and methods of mental hygiene, including the prevention and control of mental illness, the promotion of mental health, and the development of mental health services. Open to students in the Department of Psychology and the Department of Education. Three credits; winter; M.W.F., 10:15; spring; M.W.F., 11:10.

184. **MENTAL HYGIENE.** A study of the principles and methods of mental hygiene, including the prevention and control of mental illness, the promotion of mental health, and the development of mental health services. Open to students in the Department of Psychology and the Department of Education. Three credits; winter; M.W.F., 10:15; spring; M.W.F., 11:10.



FINANCIAL INFORMATION

FINANCIAL INFORMATION

THE 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	\$125.00
Village Students	100.00

Students are expected to pay actual school charges at the close of each month. The advance deposit is held in reserve until the last month of the school year or until the student leaves school. Clearance cards, issued when the advance deposit and satisfactory financial arrangements are made, must be presented to the registrar, residence hall deans, and at the cafeteria.

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. All rates listed in this bulletin are subject to change without notice.

Tuition and room rental charges for the quarter are made in three equal installments. General, class, and laboratory fees are charged during the first month of each quarter. 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 financial matters should be directed to the Business Manager, and those concerning the academic or instructional program should be directed

to the 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 TRANSCRIPTS 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. A student whose account is overdue may not be permitted to take the final quarter examinations.

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 \$1.00 penalty per day will be assessed for issuance of late permits.

RESIDENCE HALL EXPENSES

Where there is dual occupancy the room rental charges for each student per quarter are as follows:

Conard Hall	\$75-78.00
Sittner Hall	75.00
Union Hall	69.00
West Hall	69.00

When rooms are available, single occupancy is permitted at an extra charge of \$15.00 per quarter. The above charges include heat, electric lights to a maximum of 200 watts, and plain laundering not to exceed \$1.00 per week. Students are required to sew name tapes, available at most department stores or at the College Laundry, on all clothing sent to the laundry.

ROOM RESERVATIONS. Students wishing to reside in College residence halls should make room reservation by paying a \$15.00 deposit. Additional charges may be made if rooms are not vacated in a satisfactory condition or if damaged beyond normal use.

BOARD. The cafeteria plan is used in the College Dining Hall. The minimum charge for board per month is as follows:

Men	\$25.00
Women	23.00

STUDENT HEALTH CENTER. The clinical facilities and twelve beds of the Health Center are available for students requiring hospitalization or treatments. The Walla Walla General Hospital provides complete service with student discounts in case of serious illness or surgery. A reasonable charge is made for hospitalization in the Health Center in excess of four days per quarter.

TUITION AND FEES

The tuition rate is as follows:

12 - 16 credits	\$165.00 per quarter
11	153.00
10	141.00
9	129.00
8	117.00
7	105.00
1 - 6, per credit	16.80
Over 16, per credit	16.80

SPECIAL TUITION. Triple tuition is charged for tutoring.

GENERAL FEE. All students registered for 6½ or more credits are charged \$15.00 per quarter for gymnasium, health service, library, lyceum, and registration.

ASSOCIATED STUDENTS FEE. All students are automatically members of the Associated Students of Walla Walla College and are charged a fee of \$14.00 per year. This fee covers the cost of *The Collegian*, *Mountain Ash*, Student Association Center, and Association dues.

SPECIAL FEES.

Late registration	\$ 5.00
Change of program	1.00
Special examination	3.00
Advanced standing credit by examination, per quarter credit	2.00
Recording of Preparatory School credit, per unit	2.50
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

CLASS AND LABORATORY FEES

BULLETIN NO.	COURSE	PER QUAR.	PER QUAR.
		CREDIT	
ART			
141, 142, 143	Commercial Art	\$ 5.00	
147, 148, 149	Design	7.50	
41, 42, 43	Drawing	5.00	
91, 92, 93	History and Appreciation of Art	2.50	
21, 22, 23	Lettering	5.00	
121, 122, 123	Painting	15.00	
81, 82, 83	Sculpture	7.50	
BIOLOGY.			
	Each course with laboratory period	10.00	
202	Research in Botany		\$ 5.00
201	Research in Zoology		5.00
BUSINESS ADMINISTRATION			
177, 178, 179	Accounting Problems	1.00	
145	Accounting Systems	1.00	
176	Auditing Procedure	1.00	
141-142-143	Cost Accounting	1.00	
174	Fund Accounting	1.00	
71-72-73	Intermediate Accounting Theory	1.00	
98	Machine Accounting	10.00	
81, 82, or 83	Office Machines II	5.00	
14-15, 16	Principles of Accounting	1.00	
51-52-53	Secretarial Accounting	1.00	
172	Tax Procedure	1.00	

BULLETIN NO.	COURSE	PER QUAR.	PER QUAR.	PER QUAR.
				CREDIT
CHEMISTRY				
	Each course with laboratory period	\$ 7.50		
EDUCATION				
105	Child Literature	5.00		
124	Curriculum Methods and Materials	2.50		
101, 102, 103	Directed Teaching		\$4.00	
147, 148, 149	Directed Teaching			4.00
118	Educational Evaluation	2.50		
55 or 56	Introduction to Teaching	3.00		
171 or 173	Principles of Audio-Visual Education	7.50		
11	School Arts	5.00		
208	Special Problems in Grades 1-8	5.00		
115	Teaching of Arithmetic	2.50		
73	Teaching of Language Arts	2.50		
71	Teaching of Reading	2.50		
72	Teaching of Social Studies	2.50		
ENGINEERING				
CE 164-165-166	Advanced Structural Design	2.50		
ME 61-62-63	Architectural Drawing	2.50		
CE 55	Curves and Earthworks	5.00		
EE 161-162, 163	DC-AC Machinery	5.00		
EE 64-65-66	Electric & Magnetic Circuit Analysis	5.00		
CE 54	Elementary Surveying	7.50		
ME 1-2-3	Engineering Drawing	2.50		
ME 151-152	Engineering Materials	7.50		
EE 174	Fields and Waves	5.00		
ME 143	Machine Design (3rd quarter)	2.50		
ME 4-5-6	Mechanical Drawing	2.50		
ME 137, 138, 139	Mechanical Engineering Laboratory I	5.00		
ME 154, 155, 156	Mechanical Engineering Laboratory II	5.00		
EE 164-165-166	Radio Communications	7.50		
CE 56	Route Surveying	7.50		
CE 102	Soil Mechanics	5.00		
EE 176	Transients	5.00		
EE 175	Transmission Lines	5.00		
ENGLISH				
1A	Freshman Composition, 1A	11.00		
84-85-86	News Writing	1.00		
HOME ECONOMICS				
196	Advanced Interior Decoration	5.00		
171-172	Advanced Nutrition	2.50		
11, 12, 13	Baking	10.00		
71, 72, 73	Clothing Fund., Selection, and Const.	2.50		
163	Experimental Cookery	7.50		
1, 2, 3	Foods & Nutrition, Meal Plan., Service	7.50		
94-95	Institution Food Preparation	2.50		
178	Institution Management	5.00		

BULLETIN NO.	COURSE	PER QUAR.	
		PER QUAR.	CREDIT
181-182	Tailoring	2.50	
89	Textile Painting and Related Arts	2.50	
88	Textiles	2.50	
102, 103	Weaving and Upholstering	5.00	

INDUSTRIAL EDUCATION

121, 122, 123	Advanced Woodwork	\$ 7.50
55	Arc Welding	7.50
1, 2, 3	Automotive Mechanics	5.00
102	Automatic Transmission Service	5.00
22 or 23	Bookbinding	7.50
61, 62, 63	College Woodwork	7.50
101	Engine Maintenance and Repair	5.00
103	Engine Tune-up	5.00
54	Gas Welding	10.00
153	Home Mechanics	2.50
107-108-109	Linotype Composition	10.00
74-75-76	Machine Tool Practice I	7.50
171-172-173	Machine Tool Practice II	7.50
117-118-119	Offset Lithography	10.00
33	Photography I	1.00
103	Photography II	7.50
24, 25-26	Printing	7.50
91-92-93	Printing Press Operation	10.00
191A, 192A, 193A	Special Problems in Ind. Educ. Lab.	\$2.50
71-72-73	Survey of Metal Practice	7.50
56	Welding Problems	5.00
41, 42, 43	Wood Turning I	5.00
127, 128, or 129	Wood Turning II	5.00

NURSING

52-53	Anatomy, Physiology, and Health	10.00
167 or 169	Child and Youth Health	1.50
178 or 179	Community Health Education	1.50
7	Microbiology	10.00

PHYSICAL EDUCATION

164, 165, 166	Advanced Arts and Crafts	10.00
112	Advanced Skiing	7.50
83	Archery	2.50
124, 125, 126	Arts and Crafts	10.00
61, 62, 63	Badminton	2.50
123	Campcraft and Management	7.50
105	Community Recreation	7.50
153	Leadership in Camping and Campcraft	7.50
72	Skiing	7.50
	Freshman P. E., Developmental P. E., Restricted P. E., and all activity classes (including majors)	2.75

BULLETIN NO.	COURSE	PER QUAR.	CREDIT
	Locker Fee	.50	
	Pool Charges:		
	All students not registered for		
	swimming	3.00	
	Rogers School students	1.50	
PHYSICS			
41A, 42A, 43A	General Physics Laboratory	\$7.50	
51A, 52A, 53A	Introductory Physics Laboratory	7.50	
Courses above 100	Physics Advanced Laboratories		\$5.00
22	Survey of Physical Science	3.00	
SECRETARIAL SCIENCE			
144, 145, or 146	Advanced Office Machines	4.00	
97-98-99	Advanced Shorthand and Transcription	2.50	
61-62-63	Advanced Typewriting	1.00	
11-12	Beginning Typewriting	1.00	
169	Denominational Reporting	1.00	
77, 78, or 79	Electric Typewriting	7.50	
42	Filing	4.00	
31-32	Intermediate Shorthand	1.00	
13	Intermediate Typewriting	1.00	
43	Office Machines I	7.50	
157-158-159	Secretarial Procedures	2.50	
167-168	Shorthand Reporting	1.00	
21-22-23	Shorthand Theory	1.00	
	Typewriter Rentals—6 hrs. weekly	6.00	
SPEECH			
161-162	Radio Production		1.00
	Each course except 51; 141, 142; and		
	161-162	1.00	

MUSIC FEES

The following rates for private lessons per quarter are in addition to tuition charges and are not refundable. These charges are payable at the end of the first period of the quarter. Music instructors will be available for a minimum of 9 lessons per quarter.

Piano, Organ, Voice, Strings, Woodwinds, and Brass:

One lesson weekly \$24.00
 Student Teachers: one lesson weekly (½ hr. credit) 18.00

APPLIED MUSIC—CLASS INSTRUCTION

Class Membership of four or more \$10.00 each per quarter
 Class Membership of three 12.00 each per quarter
 Class Membership of two 15.00 each per quarter

RENTALS

Pipe Organ, 1 to 7 hours per week, per hour \$.35
 Pipe Organ, 8 to 11 hours per week, per hour30
 Pipe Organ, 12 hours and over, per hour25

Stage Organ				
1 to 7 hours per week, per hour.....				.25
8 to 15 hours per week, per hour.....				.20
16 hours and over per week, per hour.....				.15
Practice room with piano				
Hours per week				Per Quarter
4				\$ 4.00
6				5.00
8				6.00
12				9.00
16				11.00
Over 16, add per hour.....				.50
Practice Room without Piano—Instrumental, voice, etc.				
Hours per week				Per Quarter
4				\$3.00
6				4.00
8				5.00
12				7.00
16				8.50
Band and Orchestral Instruments.....				4.00
Band uniform and choir robe rental.....				2.00

MUSICAL ORGANIZATIONS

A fee of \$2.00 per quarter is charged those participating in these organizations to cover part of the expenses for music, advertising, programs, etc.

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 industry 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 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. Where contracts are made with students to defray expenses by labor, the Board will not obligate itself to redeem such labor in cash should the student later find it impossible to attend college, nor is such transferable, except by special arrangement with the Board.

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 Business Office.

MISCELLANEOUS

Stationery, textbooks, 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.

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. 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.

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.

GRADUATES OF 1957

BACHELOR OF ARTS

Argueta, Marta Maria
Avey, Martha Orabell McGhee-
Beddoe, Marvin Virgil
Belko, Boris Byne
Bohlman, Donald Keith
Brenneise, Nathan
Brown, Dennis James
Bunch, Carol Jane
Campbell, Colin Arthur
Clifford, Gerald Francis
Clifton, Percy Lynn
Cook, Izene Avis
Dalrymple, Dianne
Drury, Vervyl Courtney
Durham, Beatrice Gertrude Bray-
Edwards, Dean
Esteb, Jacqueline Dolores
Fenz, Emanuel Gerson
Fitch, Victor
Forsyth, Marguerite Lorraine
Garner, Arthur Dale
Haffner, Clifford W.
Halsey, Alice Estella
Halsey, Phyllis Coleen
Hanson, Delbert C.
Harty, Gloria Elaine
Haynes, Paul Edward
Hellie, Lois May
Hiner, Jim Levi
Hoel, Kenneth Eugene
Hogarty, Donald Clyde
Homann, Dorothy
Horner, James Dayton
Huey, Harold Earl
Irvine, Alfred John
Johnson, Melvin Maurice
Johnson, Rand Joseph
Kafrouni, George I.
Klimes, Anna Homenchuk-
Klimes, Rudolf E.
Lang, Kenneth Robert
Ludden, Allene G.
Lund, Helen Phyllis
Mathews, Roger D.
Matthews, Daniel G.
Moore, William Perry
Nixon, Vaughn B.

Paulson, Shirley Joanne
Peach, Olin J.
Peckham, Norman Harold
Peterson, Paul B.
Peterson, Vernon Frank
Pflugrad, Richard DeVar
Pflugrad, Vernon DeWayne
Platner, C. Elwyn
Quimby, Frances Smith
Reiner, William Edward
Riggins, Clarence A.
Roberts, Carolyn Schutt-
Roberts, Reginald Joseph
Roberts, Richard E.
Samchenko, Yvonne Esther
Sharman, Nellie Shankel-
Smith, William Earl
Stuivenga, Izella Pearl
Tkachuk, Nick
Tompkins, Richard Leo
Tooley, Paul Eugene
Trynchuk, Josephine Evelyn
Weir, Harold Clifford
Wiebe, Henri
Wills, James Jerome
Wilson, Donald Merle
Winn, Milton M.
Wisbey, Ronald M.
Woodruff, Ray Leo
Wyman, Edward James
Yun, Anna C. S.

BACHELOR OF MUSIC

Miller, Raybert E.

BACHELOR OF SCIENCE

Anderson, Dorothy Bernita
Anderson, Wanda LaVerne
Ausman, Charlotte Maxine
Bingham, Leon P.
Blodgett, Dorothy Jean
Bull, Brian Stanley
Bunch, Winnifred Gibson-
Canaday, Elizabeth Ann
Chambers, Robert Gerald

Christensen, Ruth Lois
Collins, Eula Murphy
Colpitts, Valera Venita
Cowan, Florence Beem
Domke, Evelyn Helen
Fackenthal, Carol Dorene
Fritz, Esther Madeline
Gates, Helen Lorraine
Godfrey, M. Franklin, Jr.
Graham, Arthur B.
Gutenberg, Alice Maureen
Habib, Helmi Shafik
Hamren, Betty Rose
Hamren, Bonnie Marie
Hansen, Iris
Headley, Barbara Jean
Hitchcock, Marjorie Lorene
Hodgkin, Williard Edward
Hooper, King
Howerton, Elizabeth Ann
Idolor, Jane B.
Janssen, Glenda Ruth
Johnson, Arthur N.
Johnson, Louis A.
Johnson, Melvin E.
Kaye, Robert John, Jr.
King, Jene B.
Koehler, Arthur L.
Kromrei, Carole M.
Kueffner, Marilyn Catherine
Manley, George H.
Martin, Don Christian
Massey, Carol J.
Miller, Marilynn Monette
Monroe, Carol Ann Eby
Morris, Constance Jean
Nelson, Leroy I.
Okamura, Irene Takae
Okimi, Patricia H.
Olson, Bernece Mae
Patchen, Glenn Allen
Peck, Barbara Ellen
Purdom, Kenneth Rea II
Reiber, Robert Floyd
Rittenback, Betty Gene
Sonnenberg, Alma Fletcher
Spain, Shirley Pauline
Sproed, Bob P.
Tonole, Shirley Louise
Tooley, Barbara Doris
Walker, Muriel Ellen
Wallace, Marilyn Joyce
Waslyshen, Allan Alexander

BACHELOR OF SCIENCE IN ENGINEERING

Crawford, Carl Eugene
Harris, LeRoy Steven
Homann, Charles Edwin, Jr.
Ochsner, Robert Lee
Pestes, Michael Neemia
Thomas, Griffith Lloyd
Wellman, Arthur F., Jr.

MASTER OF ARTS

Aaen, Bernhard A.
Beltz, Alex Dan
Budd, Rose Marie
Cross, Myron Eugene
Darnall, Jack Spencer
Kannenberg, Frank Stanley
Klimes, Rudolf E.
Knapp, Betty Louise
Lyman, Minita Sype-
Oliver, Dulcie Madge
Wescott, Elbert W.
Wilson, James W.
Yaw, Roberta Louise

DOCTOR OF LAWS

Smith, Walter Irvine

INDEX

A

Academic Information	33
Administration	8
Administration Building	21
Admission by Examination	34
Admission Procedure	33
Admission to Advanced Standing	35
Admission to the Freshman Class	33
Aims, The College and Its	19
Altering Grades	37
Alumni Association Student Loan Fund	140
Applied Music	103, 138
Art	54
Associated Students	24
Associated Students Fee	135
Associates in Administration	8
Auditors	38

B

Bachelor of Arts Degree Requirements	43
Bachelor of Arts—Music Major	99
Bachelor of Music	46, 98
Bachelor of Music—Curriculum in Music Education	99
Bachelor of Science Degree Requirements	44
Bachelor of Science in Engineering	46
Bachelor of Science with a Curriculum in Nursing	125
Bachelor of Science with a Curriculum in Nursing Education	126
Baking	86
Bequests and Donations	140
Bertha Schneider Theology Student Loan Fund	140
Biblical Languages	95
Biological Sciences	55
Biological Station, Walla Walla College	55
Biology Building	22
Board	134
Board of Trustees	8
Bookbinding	89
Business Administration	60

C

Calendar for the Year 1958-59	7
Campus and Buildings	21
Candidacy for Degree	42

Changes in Registration	35
Changing Curriculums	34
Chapel	28
Chemistry	62
Chemistry Building	22
Church and Sabbath School	23
Church Music	102
Citizenship	27
Civil Engineering	72, 74
Clara E. Rogers Elementary School	22
Clara E. Rogers Elementary School Supervisory Teachers	13
Clarinet	105
Class and Laboratory Fees	135
Class Attendance	38
Class Regulations	38
Classification of Students	37
Clinical Division	124
College and Its Aims, The	19
Columbia Auditorium	22
Committees, Faculty	14
Composition	78
Comprehensive Examination	42
Correspondence Work	38
Cost of Attendance	133
Course Load	36
Course Numbering	36
Credit from Junior College	35
Credits, Explanation of	36

D

Degree Requirements	41
Departments of Instruction	53
Deposit	133
Donations, Bequests and	140

E

E. C. Kellogg Hall	22
Education	65
Education, Master of Arts Degree	65
Electrical Engineering	73, 75
Elementary Education	67, 69
Engineering	72
Engineering Building	22
English	78
Ensembles, Vocal and Instrumental	102
Entrance Requirements for the Curriculums	34
Examinations and Waivers	38
Expenses	133
Explanation of Credits	36
Extension Work	38

F

Faculty	9
Faculty Committees	14
Fees	135
Fees, Class and Laboratory	135
Fees, Music	138
Fees, Special	135
Field School of Biology	55
Financial Information	133
Foods and Nutrition	86
French	94
Freshman Class, Admission to the	33
Freshman Orientation	35
Freshman Standing	37

G

General Degree Requirements	41
General Fee	135
General Information	21
General Regulations	27
German	94
Grade-Point Average	37
Grading System	37
Graduate Students	37
Graduate Study	37
Graduates of 1957	141
Graduation Honors	38
Graphic Arts	89
Grettner Student Loan Fund	140

H

Health Center, Student	22, 134
Health Education Curriculum	127
History, Political Science, and Social Science	81
Home Economics	85
Honor Points	37
Honor Roll	38
Honors	38
Honors, Graduation	38
Housing, Veteran	23

I

Industrial Education	89
Industrial Superintendents	13
Instrumental Ensembles	102
Interior Design and Decoration	86

J

Johnson Memorial Conservatory	22
Junior College, Credit from	35
Junior Standing	37

K

Korean War Veterans	23
---------------------------	----

L

Labor, Student	139
Laboratory Fees	135
Laboratory Technician	48
Languages	93
Late Registration	36
Leaving the Campus	29
Library	21
Library Methods	107
Literature	79
Loan Funds, Scholarship and	140

M

Major and Minor Study	41
Master of Arts—Education	65
Master of Arts—Zoology	55
Mathematics	96
Mechanical Engineering	74, 76
Medical Examinations and Service	29
Medical Secretary's Curriculum	115
Medical Technology	48
Metal Trades	90
Minor Study	41, 42
Miscellaneous Regulations	29
Missionary Volunteer Society	24
Modern Language Major Requirements	93
Moral Conduct	28
Music	97
Music Charges	138
Music Conservatory	22
Music Credit Allowed on Degrees	46
Music Education	99, 101
Music Fees	138
Music History and Literature	101
Music Minor	100
Musical Organizations, Charges	139

N

Non-Departmental Offerings	107
Nursing and Health Education	129
Nursing, Bachelor of Science with a Curriculum in	135
Nursing Education Curriculum	126
Nursing Education, Two-Year Course with a Curriculum in	127
Nursing, The School of	123

O

Organ	104
Organizations, Student	24

P

Partial Course Loads	36
Pharmacy	49
Photography	90
Physical Education and Recreation	108
Physical Education Charges	137
Physical Education, Requirements for Major or Minor	108
Physical Examinations	29
Physical Therapy	48
Physics	112
Piano	103
Pledge of Cooperation	29
Political Science	83
Practical Nurse Training	49
Prayer Bands	24
Pre-Dental	47
Pre-Law	48
Pre-Medical	47
Pre-Nursing	49
Pre-Optometry	49
Pre-Professional Courses of Study	47
Pre-Veterinary	49
Printing	89
Probation, Scholastic	37
Provisional Admission	34

R

Recreation, Requirements for a Minor in	108
Refunds	134
Registration	35
Registration, Changes in	35
Regulations, Class	38
Regulations, General	27
Release of Transcripts or Degrees	134
Religious Activities	23

Remittances	133
Repeat Courses	37
Residence	27
Residence Hall Expenses	134
Residence Halls	21, 27
Residence Work	35, 42
Room Reservations	134
Rooms	30

S

Sabbath Observance	28
Scholarship and Loan Funds	140
Scholarship Plan	139
Scholastic Probation	37
School of Nursing, The	123
School of Theology, The	119
Second Bachelor's Degree	46
Secondary Education	70
Secondary School Students	30
Secretarial Science	115
Senior Class Membership	42
Senior Standing	37
Senior Students Transferring	35
Service Trades	91
Social Science	84
Social Standards	28
Societies and Organizations	24
Sophomore Standing	37
Spanish	93
Special Fees	135
Special Students	38
Special Tuition	135
Speech	117
Student Citizenship	27
Student Health Center	22, 134
Student Labor	139
Student Organizations	24
Study Hour	29
Swimming Pool	23

T

Teacher Certification	65
Terminal Courses	89
Theology, The School of	119
Theory and Composition	110
Transcripts	38
Transfer Students	35
Transferring, Senior Students	35
Trombone	106
Trumpet	106
Tuition and Fees	134
Typewriter Rentals	138

U

Use of Vehicles	28
-----------------------	----

V

Vehicles, Use of	28
Veterans, Special Information for	23
Violin	105
Visitors	30
Vocal and Instrumental Ensembles	102
Vocational Buildings	23
Vocational Credit	44, 45
Voice	104

W

Waivers	38
Walla Walla College Academy Supervisory Teachers	12
Walla Walla College Biological Station	55
Withdrawals	35
Woodshop Trades	91
Worship Attendance	30

X

X-ray Technician	48
------------------------	----

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