WALLA WALLA COLLEGE GRADUATE BULLETIN

80-81

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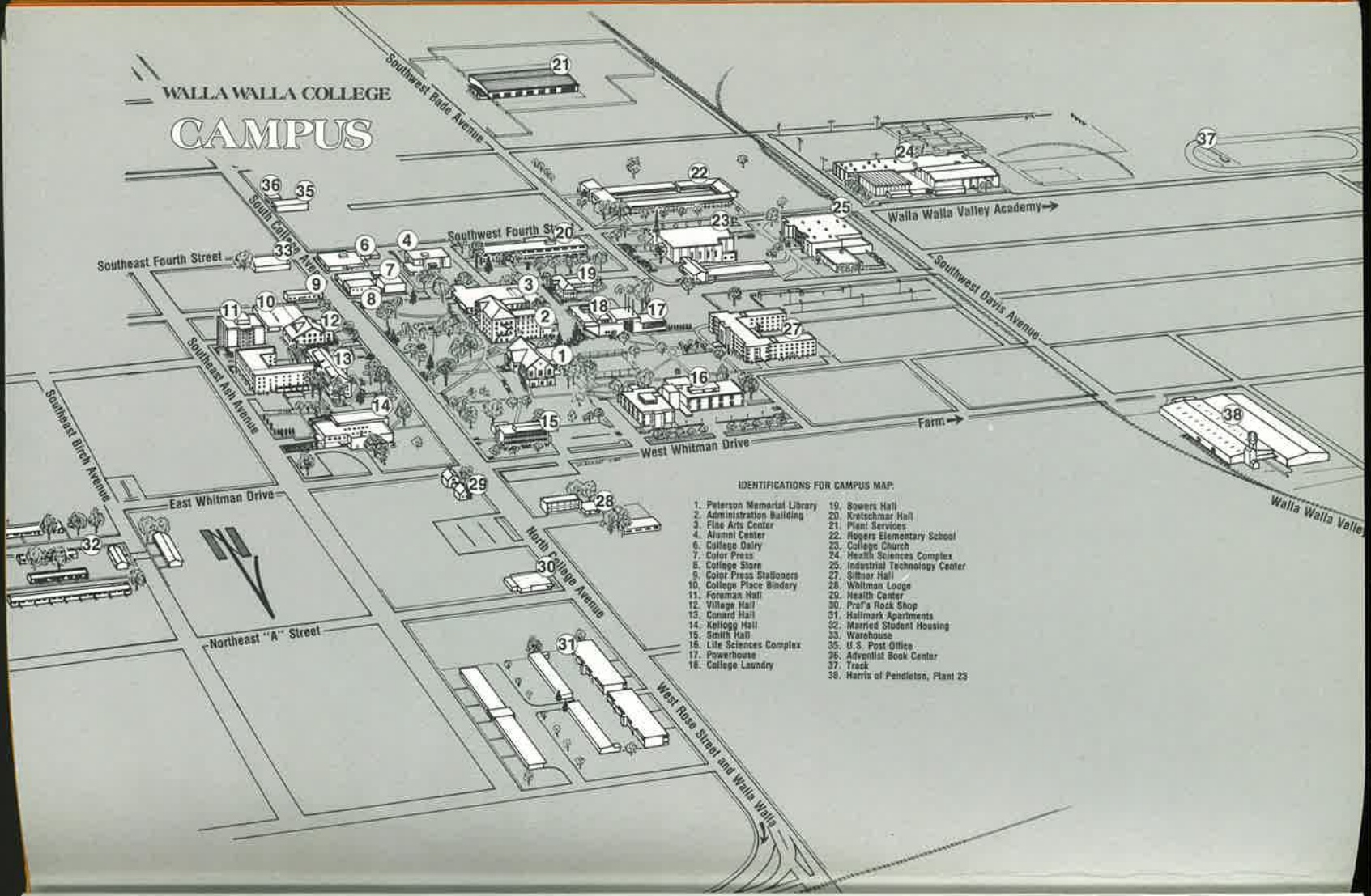
WALLA WALLA COLLEGE CAMPUS



IDENTIFICATIONS FOR CAMPUS MAP:

1. Peterson Memorial Library
2. Administration Building
3. Fine Arts Center
4. Alumni Center
6. College Dairy
7. Color Press
8. College Store
9. Color Press Stationers
10. College Place Bindery
11. Foreman Hall
12. Village Hall
13. Conard Hall
14. Kellogg Hall
15. Smith Hall
16. Life Sciences Complex
17. Powerhouse
18. College Laundry
19. Bowers Hall
20. Kretschmar Hall
21. Plant Services
22. Rogers Elementary School
23. College Church
24. Health Sciences Complex
25. Industrial Technology Center
27. Sittner Hall
28. Whitman Lodge
29. Health Center
30. Prof's Rock Shop
31. Hallmark Apartments
32. Married Student Housing
33. Warehouse
35. U.S. Post Office
36. Adventist Book Center
37. Track
38. Harris of Pendleton, Plant 23

Walla Walla College is accredited by
The Northwest Association of Schools and Colleges
Seventh-day Adventist Board of Regents
The Washington State Board of Education

Walla Walla College offers programs accredited by
Accreditation Board for Engineering and Technology, Inc. (formerly Engineers' Council for Professional Development, Inc.)
Council on Social Work Education
National Association of Schools of Music
Department of Baccalaureate and Higher Degree Programs of the National League for Nursing

is a member of
American Association of Collegiate Registrars and Admissions Officers
American Society for Engineering Education
Council of Member Agencies, Department of Baccalaureate and Higher Degree Programs of the National League for Nursing
American Association of Colleges for Teacher Education
National Association of Independent Colleges and Universities
National Association of Summer Sessions
American Council on Education National Commission on Accreditation

is approved by
American Dietetic Association
State Approving Agency for the training of veterans under the U.S. Code, Title 38, Chapters 31, 32, 34 and 35
The Attorney General of the United States for nonimmigrant students
Washington State for training in Vocational Rehabilitation

Equal Opportunity Commitment
Walla Walla College maintains a policy of equal educational opportunity for all applicants without regard to sex, race, color, handicap, national and/or ethnic origin, and in administration of its educational and admissions policies, financial affairs, employment programs, student life and services, or any other college-administered program.

Information contained in this publication is hereby certified as true and correct in content and policy as of the date of publication, in compliance with the Veterans Administration DVB Circular 20-76-84 and Public Law 94-502.

BULLETIN
WALLA WALLA COLLEGE
VOL. 89, NO. 4
DEC. 1980

Published March, June, September and December at College Place, Washington, by Walla Walla College. Entered as second-class mail matter, College Place, Washington 99324, under Act of Congress, August 24, 1912. 29564 Color Press, College Place, WA 99324 Litho U.S.A.

FOR INFORMATION—

Concerning application blanks, bulletins, academic and general information, write to:

Orpha Osborne, *Director*
Admissions/Records
509/527-2811

Concerning financial arrangements and work opportunities, write to:
Grace Hallsted, *Director*
Student Accounts/Employment
509/527-2817
Concerning room reservations and dormitory information, write to:
Walter Meske, *Dean of Men*
Sittner Hall
509/527-2953
or
Ilo Hutton, *Dean of Women*
Conard Hall
509/527-2661

Concerning matters of student affairs—off campus housing, automobile registration, policies, etc., write to:

Donald D. Lake
Vice President for Student Affairs
509/527-2511

Concerning Graduate Assistantships, write to:

Chairman, Department of Biological Sciences
509/527-2602
or
Chairman, Department of Education and Psychology
509/527-2211

WALLA WALLA COLLEGE
College Place, WA 99324

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JUNE - 1980

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

JULY - 1980

S	M	T	W	T	F	
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AUGUST - 1980

S	M	T	W	T	F	S
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SEPTEMBER - 1980

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OCTOBER - 1980

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NOVEMBER - 1980

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DECEMBER - 1980

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JANUARY - 1981

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FEBRUARY - 1981

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MARCH - 1981

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APRIL - 1981

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MAY - 1981

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JUNE - 1981

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JULY - 1981

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AUGUST - 1981

S	M	T	W	T	F	S
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16	17	18	19	20	21	22
23/30	24/31	25	26	27	28	29

WALLA WALLA COLLEGE
ACADEMIC CALENDAR, 1980-81

AUTUMN QUARTER

September 30	T	Registration
October 1	W	Instruction Begins
15	W	Last Day to Enter Classes
20	M	*Graduate Record Examinations
November 26	W	Last Day to Withdraw From Classes
26	W	Thanksgiving Vacation Begins
30	S	Thanksgiving Vacation Ends (10:00 p.m.)
December 5	F	*Graduate Record Examinations
14, 15, 16, 17	SMTW	Final Examinations

WINTER QUARTER

January 5	M	Registration (4:30 - 8:00 p.m.)
6	T	Instruction Begins
21	W	Last Day to Enter Classes
February 4	W	ASWWC Snow Frolic
9	M	*Graduate Record Examinations
25	W	Last Day to Withdraw From Classes
March 13	F	Last Day to File Master's Degree Order Form
15, 16, 17, 18	SMTW	Final Examinations

SPRING QUARTER

March 24	T	Registration (4:30-8:00 p.m.)
25	W	Instruction Begins
April 8	W	Last Day to Enter Classes
27	M	*Graduate Record Examinations
May 6	W	Spring Campus Day
13	W	Last Day to Withdraw From Classes
25	M	Last Day to Complete Final Master's Exam
31, June 1, 2, 3	SMTW	Final Examinations
7	S	Commencement (10:00 a.m.)

SUMMER QUARTER

June 14	S	Registration (6:00-8:00 p.m.)
15	M	Instruction Begins
15	M	*Graduate Record Examinations
19	F	Last Day to File Master's Degree Order Form
26	F	Last Day to Complete Final Master's Exam
August 8	Sa	Commencement

*Registration with the Counseling and Guidance Center for Graduate Record Examinations must be made at least eight weeks prior to test date.

BOARD OF TRUSTEES

R. D. Fearing, *Chairman*
N. C. Sorensen, *Secretary*

Donald Ammon
G. A. Aufderhar
Ruth Carroll
Nathan Forde
H. J. Harris
Helen Havstad
Duane Huey
Bruce Johnson
Millie Oberg
Dorothy Patchett
R. C. Remboldt
G. L. Starr
T. W. Walters
T. L. Werner
Ed Wines
Paul Nelson
Wm. Woodruff

ADMINISTRATION

N. Clifford Sorensen, Ed. D., *President*
D. Malcolm Maxwell, Ph.D., *Vice President for Academic Affairs*
Richard A. Beck, B.A., *Vice President for Financial Affairs*
Donald D. Lake, M.A., *Vice President for Student Affairs*
Verne V. Wehtje, Ph. D., *Vice President for Recruitment and Public Relations*

ADMINISTRATIVE STAFF

Kathryn Andrews, B.A., *Associate Director of Records*
Charles V. Bell, Ph.D., *Dean, School of Engineering*
Winston De Haven, M.A. *Chaplain*
Scott R. Duncan, B.S., *Director of Audiovisual Services*
Dan A. Edge, B.S., *Director of Plant Services*
J. D. V. Fitch, M.Ed., *Director of Financial Aid*
Grace Hallsted, *Director of Student Accounts and Employment*
Wynelle J. Huff, Ph.D., *Dean, School of Nursing*
Ilo Hutton, *Dean of Women*
Melvin S. Lang, Ph.D., *Director of Summer Session*
J. D. Losey, M.D., *College Physician*
Elwood L. Mabley, M.S.L.S., *Director of Libraries*
Walter Meske, M.A., *Dean of Men*
Orpha Osborne, B.A., *Director of Admissions and Records*
Donald W. Rigby, Ph.D., *Dean, Graduate School*
Alfred O. Tucker, B.S., *Chief Accountant*
_____, *Director of Educational Computer Services*

MARINE STATION

Donald W. Rigby, Ph.D., *Director*
Ross O. Barnes, Ph.D., *Research Associate Professor*
Orah Fry, *Plant Manager*
Staff of Department of Biological Sciences

COMMITTEE ASSIGNMENTS

ACADEMIC STANDARDS, D. M. Maxwell, *Ex Officio Chairman*

J. Brunt
M. S. Lang
W. J. Napier
Merlene Olmsted
Orpha Osborne, *ex officio*
D. M. Schultz

FACULTY GRANTS, L. R. McCloskey, *Chairman*

R. A. Beck, *ex officio*
L. E. Glaim
D. M. Maxwell, *ex officio*
R. C. Rittenhouse
C. A. Schwantes
T. M. Thompson

FACULTY SENATE, N. C. Sorensen, *Ex Officio Chairman*

R. A. Beck, *ex officio*
C. D. Blake
Carol Brown
T. J. Emmerson
G. O. Johnson
E. L. Johnston
M. S. Lang
E. L. Mabley, *ex officio*
D. M. Maxwell, *ex officio*
Sylvia Nosworthy
Merlene Olmsted
Orpha Osborne, *ex officio*
Ruth Blabey Sutton
All department chairmen and school deans
*Twyla Leiske
*Greg Saunders
*Karen Young

GRADUATE COUNCIL, D. W. Rigby, *Ex Officio Chairman*

J. G. Galusha
R. A. Henderson
D. A. Johnson
D. M. Maxwell, *ex officio*
Orpha Osborne, *ex officio*
R. C. Rittenhouse
D. O. Wagner, *ex officio*
G. A. Wiss

LIBRARY, L. E. Glaim, *Chairman*

J. G. Galusha
E. L. Mabley, *ex officio*
D. M. Maxwell, *ex officio*
V. P. Nye
Donnie Rigby
T. M. Thompson
*James Hicinbothom
*Linda Johnston

STUDENT FINANCE, R. A. Beck, *Ex Officio Chairman*

L. L. Claridge
J. D. V. Fitch, *ex officio*
Ilo Hutton, *ex officio*
W. Meske, *ex officio*
T. M. Thompson
R. C. Wehtje
*Dale Lampson
*Dale Tupper

TEACHER EDUCATION COUNCIL, D. O. Wagner, *Ex Officio Chairman*

J. G. Galusha
E. L. Liske
D. M. Maxwell, *ex officio*
H. T. Ochs
Merlene Olmsted
Carolyn Stevens
L. Veverka

*Student members

THE FACULTY

BIOLOGY

Joseph P. Galusha, *Chairman and Associate Professor of Biology* (1975)
B.S. 1968, Walla Walla College
M.A. 1971, Andrews University
D.Phil. 1975, Oxford University

Charles J. Amlaner, *Assistant Professor of Biology* (1979)
B.S., 1974, Andrews University
M.A., 1976, Andrews University
Doctoral Candidate 1980, Oxford University

Ross O. Barnes, *Research Associate Professor of Biology* (1974)
Ph.D. 1973, University of California, San Diego

*Dale L. Clayton, *Professor of Biology* (1969)
B.A. 1962, Andrews University
M.A. 1964, Loma Linda University
Ph.D. 1968, Michigan State University

Jack Dassenko, *Assistant Professor of Agriculture* (1970)
B.S. 1950, Andrews University
M.S. 1951, University of Minnesota

Susan Dixon, *Assistant Professor of Biology* (1980)
B.S. 1975, Walla Walla College
M.S. 1976, Walla Walla College
Doctoral Candidate 1981, Oregon State University

Albert E. Grable, *Associate Professor of Biology* (1963)
B.S. 1959, Loma Linda University
M.S. 1962; Ph.D. 1964, University of Minnesota

Stephen L. Lindsay, *Assistant Professor of Biology* (1980)
B.A. 1975, Walla Walla College
M.S. 1977, Walla Walla College
Doctoral Candidate 1980, Memphis State University

Lawrence R. McCloskey, *Associate Professor of Biology* (1971)
B.A. 1961, Atlantic Union College
M.A. 1965; Ph.D. 1967, Duke University

Donald W. Rigby, *Professor of Biology* (1958)
B.A. 1950, Loma Linda University
M.A. 1956, Walla Walla College
Ph.D. 1967, Loma Linda University

EDUCATION AND PSYCHOLOGY

Dale O. Wagner, *Chairman and Professor of Education and Psychology* (1966)
B.A. 1952, Walla Walla College
Ed.M. 1958, Eastern Washington State College
Ed.D. 1973, University of Idaho

R. Gary Brendel, *Assistant Professor of Education and Psychology* (1980)
B.A. Union College
M.A. University of Denver

Carolyn Hazelton, *Assistant Professor of Library Science* (1972-78; 1980)
B.S. 1965, Walla Walla College
M.L.S. 1971, University of Washington

Gloria Hicinbothom, *Assistant Professor of Education* (1976)
B.S. 1966; M.Ed. 1971, Walla Walla College

*Leave of Absence

*Robert J. Hunter, *Associate Professor of Education and Psychology* (1966)
A. B. 1959, Pacific Union College
M.A. 1962, Andrews University
Ed.D. 1973, University of the Pacific

Dale A. Johnson, *Assistant Professor of Education and Psychology* (1976)
B.A. 1964, Union College
M.A. 1967, University of Nebraska
Ph.D. 1978, University of California, Riverside

Wynn Knowling, *Associate Visiting Professor* (1980)
B.A. Union College
M.A. University of Iowa
Ed.S. University of Iowa
Ed.D. University of Iowa

Connie J. Koenig, *Assistant Professor of Education* (1979)
B.S. 1970, Andrews University
M.A. 1971, Loma Linda University
Ed.D. 1978, University of Southern California

Harold T. Ochs, *Professor of Education and Psychology* (1969)
B.A. 1950, Walla Walla College
M.Ed. 1957, Eastern Washington State College
Ed.D. 1972, University of Idaho

Hollibert E. Phillips, *Professor of Education and Psychology* (1970)
B.A. 1960, University of London
M.A. 1964, Andrews University
Ed.D. 1970, Boston University

Vernon W. Shafer, *Lecturer in Psychology* (1973)
B.Th. 1949, Walla Walla College
M.S. 1953, University of Southern California
Ph.D. 1958, Ohio State University

SPECIALIZATION AREAS (Secondary), CHAIRMEN

Claude C. Barnett, *Professor of Physics* (1957)
B.S. 1952, Walla Walla College
M.S. 1956, State College of Washington
Ph.D. 1960, Washington State University

Charles V. Bell, *Professor of Engineering* (1972)
B.S. 1956, Mississippi State University
M.S. 1957; Ph.D. 1960, Stanford University

Reinhard Czeratzki, *Associate Professor of Modern Languages* (1967)
B.A. 1964, Atlantic Union College
M.A. 1967, Middlebury College

Robert A. Henderson, *Professor of History* (1967)
B.A. 1962, Walla Walla College
Ph.D. 1967, Washington State University

Wilma M. Hepker, *Professor of Sociology and Social Work* (1973)
B.A. 1953, Union College
M.A. 1966; Ph.D. 1976, University of Nebraska

Paul W. Joice, *Professor of Business* (1971)
B.S. 1949, Union College
M.B.A. 1953, University of Denver
Ed.D. 1962, University of Nebraska

*Leave of absence

Melvin S. Lang, *Professor of Mathematics*, (1967)
B.S. 1957, Valley City State Teachers College
M.A. 1958, Colorado State College
Ph.D. 1972, University of Northern Colorado

Elwin L. Liske, *Associate Professor of Industrial Technology* (1963)
B.S. 1963, Walla Walla College
M.A. 1967, San Jose State College

Lee Loewen, *Assistant Professor of Office Administration* (1974)
B.S. 1947, Union College
M.Ed. 1968, Walla Walla College

Elwood L. Mabley, *Associate Professor of Library Science and Director of Libraries* (1968)
B.A. 1948, Walla Walla College
M.S.L.S. 1959, University of Southern California

David L. Schwantes, *Assistant Professor of Journalism* (1974)
B.A. 1973, Walla Walla College
M.A. 1977, University of Oregon

Nelson Thomas, *Professor of Health, Physical and Recreational Education* (1980)
B.A. 1961, Andrews University
M.A. 1968, Michigan State University
Ph.D. 1974, Florida State University

Clyde Webster, *Associate Professor of Chemistry* (1980)
B.S. 1968, Walla Walla College
Ph.D. 1972, Colorado State University

Gary A. Wiss, *Professor of English* (1966)
B.A. 1966, Walla Walla College
M.A. 1969; D.A. 1976, University of Oregon

GENERAL INFORMATION

Walla Walla College is a Christian institution of higher learning operated by the Seventh-day Adventist Church. It is committed to equal opportunity for all students and extends the rights, privileges, programs and activities generally accorded or made available to all members of the college community. Walla Walla College does not discriminate on the basis of handicap, sex, race, color, national and/or ethnic origin in administration of its admissions, educational, financial, employment and student life programs and policies, or any other college-administered program.

The 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 to the site of the old mission which was directed by Marcus Whitman from 1836 to 1847, and which has been reconstructed by the federal government at the Whitman Mission. The scenic Blue Mountains to the east are but a few minutes' drive from the campus and offer unusual opportunities for recreation and relaxation.

The principal objectives of the College are the fostering of an intelligent understanding of and devotion to Christian ideals, loyalty to God and service to humanity, and the offering of an educational experience encouraging the formation of character marked by a full, harmonious development of the intellectual, physical and spiritual powers.

The seventh-day sabbath is observed at Walla Walla College from sunset Friday to sunset Saturday. No instructional activities are conducted during these hours.

ACCREDITATION

The College is accredited by the Northwest Association of Schools and Colleges, the Seventh-day Adventist Board of Regents, the Washington State Board of Education, the Accreditation Board for Engineering and Technology, Inc. (formerly Engineers' Council for Professional Development, Inc.), the Council on Social Work Education, the National Association of Schools of Music and the Department of Baccalaureate and Higher Degree Programs of the National League for Nursing and is a member of the American Association of Collegiate Registrars and Admissions Officers, the American Society for Engineering Education, the Council of Member Agencies, Department of

Baccalaureate and Higher Degree Programs of the National League for Nursing, the American Association of Colleges for Teacher Education, the National Association of Independent Colleges and Universities, the National Association of Summer Sessions and the American Council on Education National Commission on Accreditation.

DEGREES OFFERED

The College offers courses of study leading to the Master of Arts (M.A.), Master of Education (M.Ed.) and Master of Science (M.S.) degrees. The M.A. and M.S. degrees are thesis programs and the M.Ed. is a nonthesis program.

ADMINISTRATION

The master's degree programs are directed and supervised by the Graduate Council, which is the legislative body responsible for the formulation of all graduate academic policies and curricula.

GRADING SYSTEM

The following system of grades and grade-point values is used in graduate studies:

A — 4 grade points per quarter hour
B — 3
C — 2
D — 1
F — 0

Other symbols are:

I — Incomplete
IP — In Progress
W — Withdrawal
Au — Audit

The I (incomplete) is only given for special circumstances and must be made up the following quarter. Permission for an incomplete is granted by the instructor. Students with incompletes should calculate those hours into their course loads for the following quarter. Individuals who leave college prior to removal of the incomplete will have the I show on their transcripts until the work is finished.

The IP (in progress) is given by the instructor for independent work such as Fieldwork, Research and Thesis which extend and continue naturally past the regular quarter term. The IP designation is changed by the instructor to a letter grade upon completion of the specific independent experience or research.

The W (withdrawal) is given by the instructor when a student officially drops a course at least four weeks prior to the last class period of a given course.

An Au (audit) is assigned for class attendance and participation generally excluding tests and outside of class assignments. Arrangements for an audit may be made with the instructor.

Grades of all courses on the graduate program, excluding deficiencies, will be

computed in the grade-point average. However, deficiencies may not be made up by audit or S/NC (Satisfactory/No credit) unless the courses have mandatory S/NC grading.

GRADUATE FACILITIES

Life Sciences Complex

The Department of Biology facilities in the Life Sciences Complex, completed in 1967, include staff and graduate student offices, classrooms and teaching laboratories, controlled environment rooms and chambers, radioisotope laboratory, animal and greenhouse complexes, photographic darkroom, museum and a shop.

Marine Station

Additional Department of Biology facilities occupy 40 acres of beach and timberland at Rosario Beach adjoining Deception Pass State Park, Anacortes, Washington. The physical plant includes two laboratory buildings, a cafeteria, an assembly hall, shops and 29 cabins for student and staff housing.

Smith Hall

The Department of Education is housed in a modern, air-conditioned, three-story building. Facilities include offices for staff and graduate assistants, laboratories for testing and psychology, observation rooms and a curriculum library.

Peterson Memorial Library

The library is a vital part of the educational program at Walla Walla College. The building was completed in 1944 and remodeled in 1964. Reading room accommodations, an open-shelf system, seminar and conference rooms, a periodical room and a listening/viewing facility, contribute to the study and enjoyment of learning materials. Microreaders make accessible microforms of scholarly material. The curriculum library, located in Smith Hall, contains a large selection of textbooks, children's literature books, a collection of mounted pictures, filmstrips, tapes and phonorecords. The library on the Portland campus serves specifically the students of nursing assigned there to obtain their clinical practice. The combined libraries contain approximately 130,000 volumes. An average of 4,500 volumes is accessioned annually. There are about 910 currently received periodicals. Periodical indexes and other bibliographical aids are also available. Resources in other libraries are available to graduate students and faculty members through the library's membership in the Pacific Northwest Bibliographic Center, which serves as a clearinghouse for interlibrary loans.

FINANCIAL INFORMATION

Payments Required to Register

An advance payment of $1,050 plus any balance due from a previous quarter shall be paid at the time of registration. Part-time students shall pay the full tuition charge in advance if less than $800.

Tuition

1 - 12 quarter hours — $108 per quarter hour

The tuition includes all laboratory fees.

Regular tuition is charged for auditing classes and triple tuition is charged for individual tutoring.

General Fee

A general fee of $15 per quarter is charged students registered for six or more quarter hours which provides student association membership and ID card.

Special Fees

Application Fee, new students (nonrefundable)	$10.00
Audit Credit	Regular Tuition
Change of Program (class added or dropped), each	1.00
Classes with numerous or extended field trips	Assigned Fee
Degree, Master's	
M.Ed. (diploma)	7.50
M.A. and M.S. (diploma and thesis binding)	16.00
Degree, Master's, *in absentia*	17.50
I.D. Card Replacement	3.00
Late Registration	15.00
Transcript	
First copy	Free
Additional Copies, each	2.00

Refunds

A student withdrawing from classes during the quarter will receive the following tuition refunds (general fee not refundable):

*Tuition: 100% through the fourth day of classes after regularly scheduled registration
75% second week
50% third and fourth weeks
No tuition is refunded after the fourth week

*Students dropping all classes during this period will be charged a processing fee of $50 or 5% of tuition, whichever is less.

Room Rent: 80% during first two weeks of quarter
50% between third through fifth weeks
30% between sixth through eighth weeks

The beginning of the quarter will be considered to be the first day of class instruction.

When a student withdraws during a quarter, no refund will be made until 30 days after the close of the month in which he withdrew. STUDENTS WHO LEAVE SCHOOL WITHOUT COMPLETING WITHDRAWAL PROCEDURES WILL BE CHARGED UNTIL PROPER ARRANGEMENTS ARE MADE.

Past Due Accounts

A finance charge computed at a periodic rate of one percent per month is assessed against a past due account. This is an annual percentage rate of 12 percent.

Statements

Statements will be issued each month giving an account for the previous month. Tuition and room rent for the quarter will be charged in advance at the

beginning of each quarter. Actual food service charges are billed at the close of each month. Village students may obtain their statements from the cashier in the accounting office.

It is expected that statements will be paid within ten days from time of mailing. The College operates on a cash basis and is dependent upon prompt payment of accounts.

Remittances
Checks, drafts and money orders should be made payable to Walla Walla College and should be sent to Walla Walla College Accounting Office, College Place, Washington 99324.

Insurance—Medical, Accident and Hospitalization
Student medical, accident and hospital insurance may be purchased at registration by students enrolling for six or more quarter hours. Students not wanting coverage are required to sign a waiver declining participation. Dependency coverage is available for married students. The premium is charged on the student's first statement of account after his initial enrollment. No changes or refunds are allowed once the information has been sent to the insurance company (two weeks after the first day of classes). Information describing cost, coverage and claim procedures will be supplied each student at registration. Inquiries should be directed to the student health center.

Student Health Center
The clinical facilities and 12 beds of the health center are available for students requiring treatment or minor hospitalization. Prescriptions and other medicines are available at special prices. A reasonable charge is made for hospitalization in excess of three days per quarter. The three days allowed per quarter are not cumulative. In case of serious illness or surgery, the Walla Walla General Hospital provides complete service to students. Financial arrangements must be made directly with the hospital.

Release of Transcripts or Degrees
By action of the board of trustees of the College, a degree or transcript of credit, official or unofficial, may not be released until the student's account is paid in full.

To expedite the release of transcripts, diplomas and other legal documents, the student should send a *money order* or *certified check* to cover the balance of his account when requesting transcripts, et cetera.

Loans
The following loan funds are recommended and applications may be obtained from the Student Finance Office.

Federally Insured Loan. Many banks are offering Federally Insured Loans to college students. These are long-term, low-interest loans that need not be repaid until the student completes his course of study. Consult the loan officer of your bank for additional information.

National Direct Student Loan. The National Direct Student Loan is made available through the United States Department of Health, Education and Welfare and Walla Walla College. To qualify, the students must have financial need as evidenced by submission of a WWC application for financial aid and Financial Aid Form (FAF). Priority in awarding this aid is given to

students with the greatest financial needs. Repayments begin after the applicant's student status terminates. Applications and FAF are available through the college Financial Aid office.

Oregon State Student Loan. Under this plan Oregon State residents may borrow from their hometown bank if they are accepted for enrollment or are enrolled in good standing and carrying at least a half-time course of study. Applications are available in the Financial Aid office.

Graduate Assistantships

A limited number of graduate assistantships are available to provide students with an opportunity for professional experiences in their chosen fields of specialization or in activities that may be valuable in preparing them more fully for their future occupational roles.

Assistantships are open to both men and women with evidence of sufficient maturity and potential to benefit from the program. Applications will be considered from prospective graduate students, postgraduates and those already admitted as regular graduate students. The stipends are awarded for periods up to 12 months, plus full remission of tuition and fees for approved courses during the period of the assistantship.

Duties of an assistant may include participation in research, instructional and guidance services, and professional activities. Application forms for graduate assistantships may be obtained by writing directly to the chairman of the Department of Biology or to the chairman of the Department of Education and Psychology. Applications for biology assistantships must be submitted before *April 15*, while the deadline for applications for education and psychology assistantships is *February 1*.

GRADUATE PROGRAM

Master's degree programs are offered in the Department of Biology, and in the Department of Education and Psychology. Graduate study is planned in reference to the student's experience, future objectives, personal qualifications and previous academic preparation. The importance of careful planning and close cooperation between the student and his assigned adviser is emphasized.

OBJECTIVES OF THE GRADUATE PROGRAM

The program provides an atmosphere which stimulates intellectual curiosity and independent thinking. It strives to develop an appreciation of the value of research and an acquaintance with basic research techniques. It endeavors to strengthen the professional competence of the individual in his area of specialization.

ADMISSION TO GRADUATE STUDY

Applicants for admission to graduate study shall have been graduated from a recognized four-year college or university and should have completed a basic background of undergraduate work in the proposed field of graduate study. Applicants without such a background should expect to make up deficiencies.

The applicant must file completed graduate application forms and two official transcripts of all work taken on the collegiate level with the Associate Director of Records of the College at least three months prior to the quarter in which graduate study is to commence. Failure to do so may result in delay in admission and registration. All forms and transcripts submitted for admission

become the property of the College and are not returned. Admission forms are available from the Admissions Office.

Eligibility for admission as a graduate student is determined by the Graduate Council of the College upon the recommendations of the Biology or Education and Psychology departments.

Admission Requirements for the Master's Degree Program
In addition to an acceptable baccalaureate degree, applicants for admission to a graduate degree program must have the following:

1. Satisfactory scores on the *Graduate Record Examination* (GRE): *Advanced* and *Aptitude* tests or alternatively the *Undergraduate Assessment Program* (UAP): *Field* and *Aptitude* tests. The test scores are used in part to determine eligibility for admission to the Graduate School.

   Applicants in biology must provide transcripts of test scores for the *GRE: Advanced Test in Biology* and the *Aptitude Test* or the *UAP: Field Test in Biology* and the *Aptitude Test*.

   Applicants in education must provide transcripts of test scores for the *GRE: Advanced Test in Education* and the *Aptitude Test* or the *UAP: Field Test in Education* and the *Aptitude Test in Education*. Students who intend to pursue a counseling specialization, or whose undergraduate major was psychology, may elect to substitute the *Advanced Test in Psychology* for the *Advanced Test in Education*.

2. A minimum cumulative grade-point average of 2.75 on either the last 96 credits toward the baccalaureate degree or on the total undergraduate program, whichever is higher.

An applicant whose undergraduate grade-point average is below 2.75 may be admitted if there is other evidence of ability to pursue the graduate degree. Such evidence may include one or more of the following: performance on the Graduate Record Examinations, strong professional recommendations, postgraduate work at a recognized institution, experience in areas related to the desired graduate specialization, or other criteria established by the departments concerned.

A student who meets the requirements for admission to the master's degree program but who registers only as a postgraduate has no assurance that credit earned will later apply toward the master's degree.

Admission Requirements for the Nondegree Program
Graduates of an accredited college or university with a cumulative undergraduate GPA of 2.00 may be admitted as postgraduate students to take courses toward provisional and standard certification, special credentials or additional course work. These credits may not apply to a master's degree.

Graduate Credit for Seniors
Seniors who wish to take graduate numbered (500) courses must submit for evaluation an approved senior outline and transcript to the Graduate Council. Approval to register for a course is given only after determination of eligibility for admission to the Graduate School. Graduate courses for certification and the library science curriculum may be taken without prior permission.

However, credit taken under any circumstances will not apply to a graduate program without completed graduate application forms and registration approval.

GENERAL DEGREE REQUIREMENTS

Responsibilities of the Student
The graduate student is responsible for a knowledge of all regulations and procedures as published in this bulletin. The student must assume the initiative in such matters as arranging for required tests and examinations, securing approval of his program of study, and following all procedures in their proper sequence. Failure to do so may result in unnecessary delay or interruption of graduate study.

Residence and Time Requirements
A minimum of 45 quarter hours is required, at least 33 of which must be earned while in residence.

Credit older than six calendar years usually is not used to satisfy degree requirements. However, a student may submit a request to Graduate Council for validation of an outdated course if its content is comparable to a current course and if the student is knowledgeable in it. These judgments shall be made by persons with expertise in the respective disciplines.

Course Requirements and Scholarship
The completion of a minimum of 45 quarter hours in approved graduate courses with a cumulative grade-point average of at least 3.00 is required. Grades of all courses on the graduate program excluding deficiencies will be computed in the grade-point average.

Courses numbered 500 or above are primarily for graduate students. A minimum of 24 quarter hours must be earned in courses numbered 500 or above for the Master of Arts and Science degrees. A minimum of 30 quarter hours is required in courses numbered 400 or above for the Master of Education degree. Courses numbered 400 to 499 are open to both undergraduate and graduate students. Courses numbered 350-399 may be included in the graduate program on approval of the Graduate Council.

Departmental Requirements
Candidates for a master's degree must also satisfy additional departmental requirements as listed in this bulletin under the section Departments of Instruction.

Second Master's Degree
The second master's degree requires a minimum of 30 additional quarter hours with approval of the Graduate Council.

Course Load
The normal load is 12 hours per quarter. Any course load above this amount must be approved by the Graduate Council.

Changes in Registration
Students withdrawing from college or individual courses must file an official drop voucher with the Records Office. Withdrawal slips must be signed by the adviser and the instructor involved. The final date for dropping a class is

the Wednesday of the week prior to final examinations. Students doing passing work prior to withdrawal will receive a W (withdrawal). Students withdrawing from all classes during the quarter will receive Ws.

Transfer of Graduate Credit
A maximum of 12 quarter hours of graduate work taken at other recognized institutions may be approved for transfer toward the master's degree. A GPA of 3.00 must be maintained on all course work taken in residence. The transfer credit may be by extension if acceptable toward the master's degree at the school offering the extension work. It is the responsibility of the student to provide such documentation. Correspondence credit or credit by examination is not accepted.

Bulletin
The student's degree candidacy must be based on the graduate bullletin in effect at the time the proposed program for graduate study is approved by the Graduate Council.

PROGRAM OF STUDY

Prior to registering for the first quarter of study, all students admitted for a master's degree program must consult with the chairman of their department for assistance in selecting courses. An adviser and/or advisory committee will subsequently be appointed to guide the student in planning a program of study to complete the degree. All course selection and program changes must be made in conference with the adviser, and with approval of the Graduate Council.

Toward the end of the quarter in which the student is about to complete his first 9-15 quarter hours of approved graduate study (exclusive of deficiencies), application must be made for advancement to degree candidacy. Since a minimum of 30 quarter hours should be earned after advancement to candidacy has been granted, any delay in filing this application may result in a loss of earned credit.

ADVANCEMENT TO DEGREE CANDIDACY

Admission to graduate study merely constitutes permission to register for course work. It does not imply candidacy.

A student may be advanced to master's degree candidacy by fulfilling the following conditions:

1. Arrange for the removal of any undergraduate deficiencies.
2. Complete 9 to 15 quarter hours of approved graduate study with a minimum grade-point average of 3.00. If grade points earned on this credit do not average 3.00, advancement to candidacy will not be approved.
3. Submit the "Application for Degree Candidacy and Proposed Program of Courses" form to the department chairman outlining a study program including courses completed and those yet to be completed in fulfillment of the requirements for the master's degree. This program must be

considered for approval by the staff of the department concerned upon completion of 9 to 15 quarter hours.

4. Secure approval of the proposed program by the Graduate Council. Approval of the program and advancement to master's degree candidacy will be officially acknowledged by a letter from the chairman of the Graduate Council.

Advancement to master's degree candidacy indicates that the Graduate Council and the department concerned encourage the candidate to complete the master's degree. The degree is granted only after successful completion of the approved program of studies within the regulations of the College.

Changes in Program

Changes in the proposed program may not be made without the prior approval of the department chairman, director of admissions and records and chairman of the Graduate Council.

THESIS REQUIREMENT

A thesis demonstrating ability to conduct research in a systematic and scholarly manner must be presented by candidates for the Master of Arts and Master of Science degrees. The thesis is planned with and approved by the student's advisory committee. Completion of the thesis must be in accordance with the requirements of each department.

Approved copies of the completed thesis are kept on permanent file in the college library and in the respective departments.

EXAMINATIONS

Master's degree candidates must pass a written and/or oral examination administered by an examining committee. The nature of further examination, if required, is to be determined by the examination committee. A representative of the Graduate Council, who is not a member of the candidate's advisory committee, attends each oral examination.

Examination Regulations

1. It is the candidate's responsibility to schedule written and/or oral examinations with the department chairman.
2. The examinations are coordinated by the chairman of the department and/or the candidate's advisory committee. Success or failure of the examinations is determined by the examination committee.
3. Questions in the examination will be based upon the candidate's areas of study and/or thesis.
4. The time allowed for the oral examination is ordinarily not more than two hours, while written examinations take considerably longer.
5. Any candidate who fails either written or oral examinations may be granted only one opportunity by the examination committee to retake the respective examination after a lapse of at least one quarter.
6. Final examinations should be completed at least two weeks before commencement.

CONFERMENT OF DEGREE

The candidate must file in duplicate the order form for the master's degree with the Records Office prior to the beginning of the final quarter.

Students are required to participate in the graduation exercises. In special cases permission to receive the master's degree *in absentia* may be granted by the president of the College.

DEPARTMENTS OF INSTRUCTION

BIOLOGICAL SCIENCES

The Department of Biology offers a Master of Science degree in biology. Courses are offered in zoology and botany on the main campus and at the Marine Station near Anacortes, Washington. The program of course work and research developed for each graduate student takes into account the future goals, present interests and academic background of the student. In addition to a basic course in biology (zoology and botany), specific background courses, or their equivalents, should include genetics, development, physiology and ecology. An adequate preparation in chemistry (inorganic and organic), physics (general physics) and mathematics (algebra, trigonometry, some calculus) will complete the necessary foundation upon which an individualized graduate program may be built. There is sufficient flexibility to allow a student to propose a program of a more interdisciplinary nature if desired. Because of the spectrum of biological and interdisciplinary opportunities presented at the Marine Station, all graduate students are expected to attend one summer term.

The specific objectives of the Department of Biology applicable to the graduate program are:

1. To increase the competence of secondary schoolteachers, especially those in the Seventh-day Adventist educational system.
2. To prepare students for positions in institutions of higher education by giving them a firm foundation for work toward the doctorate.
3. To provide a preparation for research careers.

BIOL 401 PLANT PHYSIOLOGY **4**
A course designed to cover the principles of physiology of plants in general. One laboratory per week. Prerequisite: BIOL 360; BIOL 392.

BIOL 403 ORNITHOLOGY **4**
A systematic study of native birds of North America, with emphasis on identification, migration, geographical distribution, habits and life histories. Two laboratories per week.

BIOL 405 GENERAL ENTOMOLOGY **4**
A study of insect morphology, physiology, ecology and classification. One laboratory per week.

BIOL 412 PLANT ANATOMY **4**
A study of the microscopic anatomy of plant tissues with emphasis on their origin and development. Primary attention will be devoted to the vascular plants. Recommended prerequisite: BIOL 360. One laboratory per week.

BIOL 424 HERPETOLOGY **4**
A systematic study of amphibians and reptiles with emphasis on natural history and ecology. Two laboratories per week.

BIOL 426 SYSTEMATIC BOTANY **4 or 5**
A study of the principles of plant classification, together with a systematic survey of vascular plants, with emphasis on natural history and ecology. Two laboratories per week. (College Place Campus - 4 quarter hours; Marine Station - 5 quarter hours).

BIOL 429 LIMNOLOGY **4**
A study of the factors responsible for the presence and distribution of animals and plants in fresh waters. Field work includes trips to a number of lakes and streams for collection of living specimens as well as habitat analysis. Two laboratories per week.

BIOL 432 INTRODUCTION TO PALEOBIOLOGY **4**
A study of earth's history as exhibited by the fossils with particular emphasis on paleobiological relationships. Two laboratories per week.

BIOL 444 MAMMALOGY **4**
A systematic study of mammals with emphasis on natural history and ecology. Two laboratories per week.

BIOL 446 GENERAL ECOLOGY **4**
The study of the relationship of plants and animals, both as individuals and assemblages, to their physical and biological environment. Field studies designed to examine ecological principles are part of the laboratory work. Two laboratories per week. Biostatistics, genetics and a minimum of one field natural history course recommended.

BIOL 447 PARASITOLOGY **5**
A systematic study of the morphology, life cycle and host-parasite relationships of protozoan, helminth and arthropod parasites. Two laboratories per week. Prerequisite or corequisite: CHEM 321, 322, 323.

BIOL 449 VERTEBRATE HISTOLOGY **4**
The microscopic anatomy of vertebrate cells, tissues and organs including reference to their functions. Two laboratories per week.

BIOL 451 INVERTEBRATE ZOOLOGY **5**
A study of the biology of the invertebrates with emphasis on their ecology, morphology and physiology. Two laboratories per week.

BIOL 458 PSYCHOBIOLOGY **5**
A course emphasizing readings in, and discussion of, current concepts of the biological basis of behavior in animals and man. Material is of a comparative nature with emphasis on human behavior. One laboratory per week. Prerequisite: BIOL 101, 102, 103 or BIOL 202, 203 and PSYC 130 or permission of instructor. Recommended prerequisite: BIOL 374.

BIOL 465 BACTERIOLOGY 5
A presentation of the basic principles necessary for an understanding of morphology and function of bacteria. Laboratory work, including unknowns, points out techniques employed in their study. Two laboratories per week. Prerequisite or corequisite: CHEM 321, 322, 323.

BIOL 477 INDEPENDENT STUDY IN BIOLOGICAL SCIENCE 1-6
Directed study in an approved area. The student will be required to read widely on an assigned subject, follow regular research methods and present a paper showing competence in and extent of his study. Permission from the chairman of the department required. One to three hours per quarter; maximum, six.

BIOL 483 PHILOSOPHY OF ORIGINS AND SPECIATION 3
The various theories on the origin and history of living organisms will be compared in light of present scientific knowledge in the areas of biochemistry, paleontology, morphology, geology, genetics and other related areas. For majors and minors only.

BIOL 490 TECHNIQUES IN FIELD BIOLOGY 1-6
A study of the techniques used in the collection and preservation of biological specimens for museum purposes. Emphasis is placed on the recording and preservation of ecological data obtained with the collections of specimens. The topic for a given year will depend on the instructor offering the course and credit will be given on the rate of one hour credit for each week spent working in the field.

BIOL 495 COLLOQUIUM 0
A lecture series designed to expose students to modern scientific research and researchers. Each lecture is normally given by a visiting scientist. Six quarters required of all junior, senior and graduate biology majors.

BIOL 501 RESEARCH IN BIOLOGY 2-4; 8
Individual work in a topic of original research carried out under the direction of one of the instrucotrs. Two to four hours per quarter; maximum, eight.

BIOL 503 GENETICS AND SPECIATION 3
A study of the nature and function of the genetic material as it relates to population and species variability and change. Prerequisite: BIOL 261.

BIOL 510 GRADUATE SEMINAR 1; 6
Presentation of topics and discussion of current research in specific areas of biology. One credit each quarter; minimum of five, and maximum of six quarters. Spring quarter normally involves a Research Plan and Progress Report for first-year graduate students. See Biology Department for alternate options.

BIOL 511 BIOSYSTEMATICS 4
A study of the process of speciation and its relationship to currently used taxonomic methods and rules of nomenclature.

BIOL 518 SYSTEMATIC ENTOMOLOGY 4
A study of the principles of classification of insects. Laboratory work emphasizes recognition of orders and families with special problems on the specific level. Recommended prerequisite: BIOL 405. Two laboratories per week.

BIOL 521 PRINCIPLES OF ECONOMIC ENTOMOLOGY 3
An evaluation of the various methods of controlling economically important species. Prerequisite: BIOL 405.

BIOL 522 CELLULAR BIOLOGY 5
Current knowledge and research in the areas of cell physiology, biolchemical genetics, bacteriological genetics and radiation biology will be considered. Two laboratories per week. Prerequisite: BIOL 392.

READING COURSES

A maximum of six quarter hours may be selected from Reading Courses.

BIOL 535 READINGS IN PHYSIOLOGY 2; 4
Analysis of classical and current literature in the field by means of reports and conferences with a staff member. Areas of concentration may include animal, plant, cellular or immunological aspects of physiology.

BIOL 536 READINGS IN NATURAL HISTORY 2; 4
Analysis of classical and current literature in the field by means of reports and conferences with a staff member. Areas of concentration may include mammalogy, entomology, ornithology, invertebrate zoology, ichthyology, botany or biosystematics.

BIOL 537 READINGS IN ECOLOGY 2; 4
Analysis of classical and current literature in the field by means of reports and conferences with a staff member. Areas of concentration may include ecology, symbiosis or plant ecology.

BIOL 538 READINGS IN GENETICS 2; 4
Analysis of classical and current literature in the field by means of reports and conferences with a staff member. Areas of concentration may include classical genetics, molecular biology, speciation or evolution.

BIOL 529 READINGS IN ETHOLOGY 2; 4
Analysis of classical and current literature in the field by means of reports and conferences with a staff member. Areas of concentration may include animal behavior, sociobiology or psychobiology.

BIOL 545 THESIS 8
Preparation and defense of the master's thesis based upon an original biological research project. The research topic is selected upon consultation with the student's major professor and graduate committee.

BIOLOGY COURSES: Marine Station

BIOL 101, 102, 103 or equivalent is prerequisite for all courses listed below.

BIOL 460 MARINE ECOLOGY 5
A study of interspecific, intraspecific and community relationships demonstrated by marine organisms.

BIOL 462 ICHTHYOLOGY 5
A systematic study of the fishes found in Puget Sound, with a survey of the fishes of other waters.

BIOL 463 MARINE BOTANY 5
A systematic study of plants found in Puget Sound, with a survey of marine plants from other areas.

BIOL 467 INTRODUCTION TO OCEANOGRAPHY 5
A physical, chemical, and geological study of the oceans and ocean basins as a habitat for life, emphasizing the mutual interaction between the oceanic biosphere and its environment.

BIOL 468 COMPARATIVE PHYSIOLOGY 5
A comparative study of the physiology and life processes of animals with emphasis on invertebrates. Prerequisite: BIOL 392.

BIOL 470 MARINE BIOPHYSICS 5
An introductory course emphasizing the physical aspects of living organisms studied by the experimental and conceptual methods of physics with application to marine life.

BIOL 474 MARINE INVERTEBRATES 5
A study of the biology of selected groups of marine invertebrates.

BIOL 508 PHYSIOLOGY OF THE ALGAE 5

A comparative study of the physiology of representative members of the major algal groups. Collection and growth of pure cultures of single-celled forms and related metabolic processes, nutritional factors, light requirements, synchronization and growth will be emphasized.

BIOL 514 SYMBIOSIS 5

A study of sharply defined associations between organisms. Selected examples of the viruses, bacteria, plants and animals are used to illustrate varying degrees of relationships. Prerequisite: Course work in one group of animals *or* plants *or* microbes *or* parasitology. Chemistry courses through organic are highly recommended.

BIOL 516 BEHAVIOR OF MARINE ORGANISMS 5

A study of inter- and intraspecific behaviors of marine animals and their behavioral responses to the physical environment. The course involves laboratory experiences, field observations and a research project. Prerequisites: BIOL 374 or BIOL 458 or PSYC 130 and background in organismal biology and permission of the instructor.

EDUCATION AND PSYCHOLOGY

The Department of Education and Psychology offers two master's degree programs—the Master of Education, a nonthesis program; and the Master of Arts, a thesis program. These programs permit professional enrichment through liberal course selection in the areas of school administration; elementary, junior high, or secondary instruction; and counseling.

In addition to the general objectives of the graduate program, the following are specific objectives of the department:

1. To assist the student in developing a philosophy of education consistent with Christian principles.
2. To develop an understanding of the relationship between theoretical concepts and educational processes.

PROGRAM SEQUENCE

The graduate student must assume personal responsibility for initiating all procedures in consultation with an assigned adviser in the Education and Psychology Department. Those working toward a master of arts degree must also follow the thesis requirements as outlined in *Departmental Requirements for Proposals and Theses.*

I. Precandidacy Level

A. Read all introductory information in this bulletin and follow explicitly the directions given therein.

B. Take the *Graduate Record Examinations: Aptitude Tests* and *Advanced Test in Education* if these have not been taken previously.

C. Apply to the Office of Admissions and Records for admission to graduate study.

D. Upon acceptance to graduate study, consult with the chairman of Education and Psychology for the assignment of a program adviser.

E. In consultation with the assigned adviser, plan the precandidacy phase of the program to include each of the following:

1. Orientation to graduate study in the fall or summer of the first year of graduate residency.
2. Arrangements for the removal of all prerequisite deficiencies.
3. Registration plans for the first 9-15 quarter hours of course work, including Methods of Research.

F. Consult with the credential officer if certification is being contemplated.

G. Taking no more than 12 hours per quarter, complete your first 9-15 quarter hours exclusive of deficiencies and including Methods of Research. Toward the end of the quarter or summer session in which you expect to meet this requirement, prepare with your adviser an *Application for Degree Candidacy and Program Approval.*

II. Candidacy Level

A. Complete all courses and deficiencies as specified in the approved program of studies. A minimum of 30 approved quarter hours should be

earned after advancement to candidacy has been granted by the Graduate Council.

B. In the quarter or summer session immediately *before* the one in which you plan to complete the program, do each of the following:
   1. Register for Graduate Seminar.
   2. File order form for master's degree with Records Office. (See Academic Calendar for last filing date.)

C. At the *beginning* of the quarter or summer session *in which* you plan to graduate, do each of the following:
   1. Submit evidence of experience and certification qualifications.
   2. Arrange with the chairman of Education and Psychology Department for the selection of an examination committee and for an examination date.

MASTER OF EDUCATION (M.Ed.)

The master of education degree is a nonthesis program with a variety of specialized options designed to enhance the professional competencies of practitioners in education.

By careful planning, a qualified candidate may coordinate many of the requirements for the degree with preparation for state certification as a teacher, principal or educational staff associate (counselor). However, completion of minimum degree requirements does not necessarily satisfy certification requirements. Students pursuing a certificate must consult with the credential adviser early in their program sequence.

General Prerequisites (applicable to all M.Ed. programs)

In addition to admission requirements for the master's degree, as described elsewhere in this bulletin, certain background experiences are considered prerequisite for all candidates. Deficiencies may be removed after admission to graduate study but the credit earned thereby will not apply to the minimum degree requirements. A plan for the removal of all prerequisite deficiencies must be submitted prior to advancement to degree candidacy and program approval. It is normally expected that the first of the following prerequisites will precede the second one:

1. 30 quarter hours in professional education. Any course, from any department, will satisfy the intent of this requirement if its emphasis is specifically directed toward instructional-learning principles, pupil characteristics, teaching methodology, curriculum materials or the role and function of various school personnel.
2. Not less than nine months of verified, satisfactory educational work experience. Up to 30 quarter hours for the master's degree may be earned prior to the experience, but a minimum of 15 quarter hours must be earned therefore.

   To be acceptable, the work experience must come from full-time involvement with the professional or paraprofessional academic processes which usually take place in schools or other educational service

agencies. Activities such as classroom teaching, school administration, library work, counseling or work as a dormitory dean will be considered according to its pertinence to the candidate's chosen area of specialization.

Verification of the experience must be by letter from an administrator under whom the experience was gained. The letter should attest to the time spent, the nature of the activities, and the quality of performance. It is the responsibility of the candidate to obtain this verification.

Other specific prerequisites should also be noted for each area of specialization.

Basic Requirements (applicable to all M.Ed. programs)

Unless otherwise indicated, a minimum M.Ed. program comprises 45 quarter hours. Some programs may include more than this minimum because of the nature of the degree or to provide for the particular needs and interests of the student.

Two-thirds of the minimum 45 quarter hours must be from courses numbered 400 and above. Graduate credit is not granted for courses below the 350 level unless such courses have been specifically approved by the Graduate Council.

All courses included in the degree program must be approved by an assigned adviser in the Education and Psychology Department.

Each program must contain at least 21 quarter hours in basic and professional education courses distributed as follows:

10 quarter hours in basic courses required of all candidates.

EDUC 561 Methods of Research (before advancement to candidacy)
EDUC 522 Philosophy of Education (before advancement to candidacy)
EDUC 500 Graduate Seminar (toward the end of the program)
PSYC 521 Psychology of Learning
OR EDUC 525 Education in the Twentieth Century

11 quarter hours in professional education courses as defined under General Prerequisites No. 1. These 11 quarter hours are additional to those earned to satisfy the basic requirements above. However, they may be an exclusive part of, and not necessarily additional to, professional education courses which may be specified for a chosen area of specialization.

A no-credit orientation to graduate study is required of all candidates either in the fall or summer of the first year of residency, whichever comes first.

Upon completion of 9 to 15 quarter hours, a planned program of study must be submitted for consideration by the staff of the department. Recommendations will then be made to the Graduate Council concerning advancement to degree candidacy.

All candidates who do not already qualify for a certificate must complete the academic requirements for state certification as a teacher, principal or educational staff associate before the degree is granted. It is not necessary to be in possession of the certificate before graduation, but eligibility must be established in all respects excepting that of citizenship. Preparation for the certificate will normally be according to Washington State requirements for either the provisional (initial) or standard (continuing) level. Candidates from out-of-state may produce evidence of qualifying in the state, province or country of their intended future educational employment if a specific certification program exists therein. Otherwise, they must meet the Washington State requirements.

Areas of Specialization

Programs of specialization are sufficiently flexible to meet individual needs while at the same time providing a basic core of substantive fifth-year experience applicable to various state certificates.

Specializations may be planned in the following approved areas:

School Administration
Counseling and Guidance
Elementary Instruction
Junior High Instruction

Secondary Instruction in:
Biology, Biophysics, Business
Chemistry, English, History
Industrial Arts, Language
Arts, Mathematics, Physical
Education, Physics, Social
Sciences.

A candidate wishing to pursue a specialization in an area other than any listed above may submit for consideration by the department staff and the Graduate Council an individualized self-planned proposal itemizing at least 24 quarter hours in the chosen specialization area. Additional supporting credit as needed to complete the degree will be selected in harmony with all other specified degree requirements. It is essential that this type of program be planned in consultation with an assigned adviser in the Department of Education and Psychology.

School Administration

Specialization Prerequisites: Three years of satisfactory certificated classroom teaching. Must have acquired all qualifications for a state-approved teaching certificate.

Area Requirements: 24 quarter hours in courses related to school administra-

tion, supervision, curriculum and counseling. Must include the following courses unless they were a part of the undergraduate sequence:

EDUC 504 Elementary Curriculum
OR EDUC 508 Secondary Curriculum
EDUC 526 School Finance
EDUC 544 Administration of the Elementary School
OR EDUC 551 Administration of the Secondary School
EDUC 539 Supervision
EDUC 550 School Law
EDUC 556 Curriculum Planning
PSYC 444 Social Psychology

11 additional quarter hours in supporting courses from education and psychology, and/or from other departments, as needed to complete the minimum of 45 quarter hours.

EDUC 560 Administrative Practicum does not apply toward the minimum of 45 quarter hours.

Counseling and Guidance (50 quarter hours minimum)

Specialization Prerequisites: A minor in psychology or an equivalent 28 hours including elementary statistics and a course in child or adolescent development.

Area Requirements: 30 quarter hours in courses related to counseling, psychology and guidance activities in either elementary or secondary schools. Must include the following courses if they were not a part of the undergraduate sequence:

EDUC 426 Principles and Procedures of Guidance
PSYC 430 Psychological Testing
PSYC 489 Vocational Development Theory
PSYC 515 Counseling Theories and Techniques
PSYC 532 Individual Testing
PSYC 534 Assessment of the Individual
PSYC 565 Practicum in Counseling (6 quarter hours)

10 additional quarter hours in supporting courses from education and psychology, and/or from other departments, as needed to complete a minimum of 50 quarter hours specified for the counseling specialization.

The degree in counseling requires completion of the Educational Staff Associates certification program as approved by the State of Washington.

Elementary Instruction

Specialization Prerequisites: A major in elementary education or an equivalent concentration of 45 quarter hours.

Area Requirements: 11 quarter hours in professional education courses as

defined under General Prerequisites No. 1. EDUC 390 Educational Evaluation or its equivalent must be included if it was not a part of the undergraduate sequence.

15 quarter hours in academic content courses from departments other than education and psychology. These courses must be in subject-matter areas relevant to the content of the elementary curriculum.

9 additional quarter hours in supporting courses from education and psychology, and/or from other departments, as needed to complete the minimum of 45 quarter hours.

Junior High Instruction

Specialization Prerequisites: Majors and/or minors in two content areas chosen for this specialization, or two equivalent subject-matter concentrations with a minimum of 27 quarter hours in each. The two content areas must be in academic subjects commonly taught at junior high level.

Area Requirements: 11 quarter hours in professional education courses as defined under General Prerequisites No. 1. Insofar as possible, these courses should be related to junior high curriculum and instruction.

15 quarter hours in academic content courses from two departments other than education and psychology. These courses must be in the same general areas as the two prerequisite content areas specified above.

9 additional quarter hours in supporting courses from education and psychology, and/or from other departments, as needed to complete the minimum of 45 quarter hours.

Secondary Instruction

Specialization Prerequisites: A major in the area of content specialization or an equivalent concentration of 45 quarter hours.

Area Requirements: 24 quarter hours in academic content courses related to an approved area of specialization. All courses for the 24 quarter hours specialization must be chosen in consultation with and approved by an adviser in the department(s) concerned.

In specialization where only one content area is emphasized (e.g., English), up to 6 of the 24 quarter hours may be selected from not more than two supporting departments other than the major area of emphasis. In interdisciplinary areas (*), courses must be distributed among areas listed in parenthesis according to the needs and interests of the candidates.

The approved areas of specialization are:

Biology
*Biophysics (biology, chemistry, engineering, mathematics, physics)
Chemistry
Business Teacher Education
English
History

Industrial Arts
*Language Arts (English, communications, journalism, library science)
Mathematics
Physical Education
Physics
*Social Science (history, political science, sociology)

11 quarter hours in professional education courses as defined under General Prerequisites No. 1. Insofar as possible, these courses should be related to secondary curriculum and instruction. All professional education courses must be approved by an assigned adviser in the Education and Psychology Department.

MASTER OF ARTS—IN EDUCATION (M.A.)

In the master of arts program, educators and others with appropriate backgrounds may specialize within an approved general area of education according to their interests. The inclusion of a thesis requirement provides an opportunity for the development of scholarly investigative and reporting skills. It particularly serves those wishing to contribute to knowledge through research, or those aspiring toward a higher degree beyond the master's.

Qualified candidates seeking denominational or state certification as a teacher, principal or counselor may coordinate many of the requirements of the degree with preparation for the certificate. However, completion of minimum M.A. requirements will rarely satisfy certification requirements in their entirety. Students pursuing a certificate of any kind should consult with the credential adviser early in their program sequence.

Prerequisites

In addition to admission requirements for the master's degree program, as described elsewhere in this bulletin, an M.A. candidate must meet the prerequisites listed under the chosen area of specialization. Unless specifically noted, there are no requirements with respect to work-experience or certification either prior to or during the degree program.

Deficiences with respect to specialization prerequisites may be removed after admission to graduate study, but the credit earned thereby will not apply to the minimum degree requirements. A plan for the removal of all deficiencies must be submitted prior to advancement to degree candidacy and program approval.

Basic Requirements (applicable to all M.A. programs)

Unless otherwise indicated, a minimum M.A. program comprises 45 quarter hours of credit. Some programs may include more than this minimum because of the nature of the specialization or to provide for the particular needs and interests of the student.

A minimum of 24 quarter hours for the M.A. degree must be from courses numbered 500 and above.

All courses included in the degree program must be approved by an assigned adviser in the Education and Psychology Department.

The following courses are required of all candidates:

EDUC 500 Graduate Seminar (toward the end of the program)
EDUC 522 Philosophy of Education (before advancement to candidacy)
EDUC 561 Methods of Research (before advancement to candidacy)
EDUC 590 Thesis

A no-credit orientation to graduate study is required of all candidates either in the fall or summer of the first year of residency, whichever comes first.

Upon completion of 9 to 15 quarter hours, a planned program of study must be submitted for consideration by the staff of the department. Recommendations will then be made to the Graduate Council concerning advancement to degree candidacy.

Areas of Specialization

The program of study for the area of specialization is planned in consultation with the departmental adviser to meet the individual needs and interests of each student. A minimum of 18 quarter hours is required in the chosen area. For many candidates, additional specialization credit beyond the minimum of 18 quarter hours may be desirable or necessary, especially if certification is also being sought.

Specializations may be planned in the following approved areas:

School Administration

Specialization Prerequisites: Three years of satisfactory, certificated classroom teaching.

Area Requirements: 18 quarter hours in courses related to school administration and supervision.

12 quarter hours in supporting courses from education and psychology, and/or from other departments, as needed to complete the minimum of 45 quarter hours.

Although EDUC 560 Administrative Practicum is required for candidates working toward a Washington State principal's credential, it does not apply toward the minimum of 45 quarter hours.

Curriculum and Instruction

Specialization Prerequisites: 30 quarter hours in professional education. Any course, from any department, will satisfy the intent of this requirement if its emphasis is specifically directed toward instructional-learning principles, pupil characteristics, teaching methodology, curriculum materials, or the role and function of various school personnel.

Not less than nine months of verified, satisfactory educational work experi-

ence. Up to 30 quarter hours for the M.A. degree may be earned prior to the experience, but a minimum of 15 quarter hours must be earned thereafter.

Verification of the experience must be by letter from an administrator under whom the experience was gained. The letter should attest to the time spent, the nature of the activities and the quality of performance. It is the responsibility of the candidate to obtain this verification.

Area Requirements: 18 quarter hours in professional education courses as defined under specialization prerequisites, above. Insofar as possible, emphasis should be directed toward one of the following: preschool, elementary, junior high, secondary or higher education. 12 quarter hours in supporting academic content courses from departments other than education and psychology. These courses must be in subject-matter clearly related to the area of emphasis chosen for specialization. On the junior high, secondary and higher education levels, supporting courses must be from not more than two content areas.

Educational Foundations

Specialization Prerequisites: A minor in psychology or sociology, or an equivalent concentration of 28 quarter hours in one of these areas. 6 quarter hours in philosophy and 3 quarter hours in educational psychology. These quarter hours may be an inclusive part of, and not necessarily additional to, the minor prerequisite stated above.

Area Requirements: 18 quarter hours in not more than two of the following areas: historical, philosophical, sociological and psychological foundations of education.

Candidates specializing in psychological foundations should choose courses related to learning, development, measurement and statistics.

12 quarter hours in supporting courses from education and psychology, and/or from other departments, as needed to complete the minimum of 45 quarter hours.

Counseling and Guidance (50 quarter hours minimum)

Specialization Prerequisites: A minor in psychology or an equivalent 28 quarter hours including elementary statistics and a course in child or adolescent development.

15 quarter hours in professional education, as defined under the Specialization Prerequisites for Curriculum and Instruction. These quarter hours may be an inclusive part of, and not necessarily additional to, the minor prerequisite stated above.

Area Requirements: 18 quarter hours in courses related to counseling, psychology and guidance activities or theory. Must include courses in counseling techniques, measurement theory and assessment skills.

6 quarter hours in PSYC 565 Practicum in Counseling.

11 quarter hours in supporting courses from education and psychology and/or

from other departments, as needed to complete the minimum of 50 quarter hours specified for the counseling specialization.

Individualized Option

A candidate wishing to pursue a specialization in an area other than any listed above may submit for consideration by the departmental staff and the Graduate Council an individualized self-planned proposal itemizing at least 18 quarter hours in a chosen specialization area with appropriate prerequisites. Additional supporting credits, as needed to complete the degree, will be selected in harmony with all other specified degree requirements. It is essential that this type of program be planned in consultation with an assigned adviser in the Department of Education and Psychology.

TEACHING CERTIFICATION

Walla Walla College is a state-approved teacher education institution. As such, it is authorized to recommend graduates to the Washington State Department of Education for the provisional and standard certificates.

The course offerings also provide for teaching certificates currently available from the General Conference Department of Education. Information concerning specific certificates is available in the regular bulletin and/or from the certification consultant.

Requirements for Standard Certificate—Fifth Year

To be recommended for the Washington Standard Certificate, the candidate must fulfill the following requirements:

1. Hold valid Washington provisional certificate.
2. Complete three years of successful teaching.
3. Complete an approved 45 quarter hours beyond the provisional certificate.

Of the 45 quarter hours, 23 must be in residence; 30 may be earned prior to the first year of teaching; at least 15 quarter hours must be earned after the first year of teaching; a maximum of 5 quarter hours may be earned by correspondence. Correspondence or extension credits must be from schools approved by the college recommending the candidate for certification.

The fifth-year program must be planned by authorized personnel in the Education Department. By careful programming, some students are able to complete the requirements for the master's degree in education at the same time they are fulfilling the requirements for the Standard Certificate.

COURSES IN EDUCATION

EDUC 266, 267 TUTORING—ELEMENTARY/SECONDARY **1-3**
Supervised teaching experience on a one-to-one or small-group basis providing opportunity to develop and demonstrate teaching competence and selection of appropriate teaching strategies in an elementary or secondary school classroom. By permission of the instructor. Students taking elementary will register for EDUC 366; students taking secondary will register for EDUC 367. One to three quarter hours; maximum, three.

EDUC 361 LANGUAGE ARTS IN THE ELEMENTARY SCHOOL **3**
A study of issues currently important in language arts education, with emphasis on research and its practical implications for teaching, functions and programs of the language arts in the elementary school curriculum.

EDUC 362 READING IN THE ELEMENTARY SCHOOL **4**
A basic course stressing current theory, effective instructional procedures, learning resources and tutoring experience for teachers of reading in the primary and intermediate grades of the elementary school.

EDUC 369 SCIENCE AND HEALTH IN THE ELEMENTARY SCHOOL **3**
Procedures of teaching science and health in the elementary school with attention to recent media and trends. Classroom experience provided.

EDUC 373 MATHEMATICS IN THE ELEMENTARY SCHOOL **3**
Survey of the content, media and processes used in teaching mathematics in the elementary school; emphasis on newer approaches.

LIBR 374 LIBRARY MATERIALS FOR CHILDREN **3**
See the Library Science section of the undergraduate bulletin.

ENGL 374 LITERATURE IN THE ELEMENTARY SCHOOL **3**
See the English section of the undergraduate bulletin.

ENGL 375 LITERATURE IN THE SECONDARY SCHOOL **3**
See the English section of the undergraduate bulletin.

EDUC 375 CLASSROOM MANAGEMENT **2**
Attention will be given to varied structuring of the learning environment and the special considerations required as small schools and multigrade classrooms. Explores the human relations within the teaching profession.

EDUC 390 EDUCATIONAL EVALUATION **3**
A practical introduction to principles and techniques of evaluating classroom activities in elementary and secondary schools.

EDUC 404 HISTORY OF EDUCATION **2**
A survey of the history of education.

EDUC 426 PRINCIPLES AND PROCEDURES OF GUIDANCE **3**
The philosophy, functions, organization and evaluation of the guidance programs.

INDS 428 HANDWORK ACTIVITIES IN THE ELEMENTARY SCHOOL **3**
See the Industrial Technology section of this bulletin.

SOCI 444 SOCIOLOGY OF EDUCATION **3**
See the Sociology and Social Work section of the undergraduate bulletin.

EDUC 452 DIRECTED TEACHING—In-Service **6**
Directed laboratory experience for a teacher desiring to improve his professional skills. Training in methods of analysis of teaching and practice in methods of self-analysis will be included. Registration only by permission of the Student Teaching Committee after completion of the required courses in professional education. Maximum; six quarter hours.

EDUC 461 METHODS OF AUDIOVISUAL EDUCATION **2**
A survey of the methods of instruction through the use of audiovisual aids.

EDUC 462 INSTRUCTIONAL AIDS—PRODUCTION **2**
Experiences in the production of instructional aids.

HLED 472 METHODS OF SCHOOL HEALTH INSTRUCTION **3**
See the Health, Physical Education and Recreation section of the undergraduate bulletin.

PETH 472 METHODS OF TEACHING SECONDARY PHYSICAL EDUCATION **3**
See the Health, Physical Education and Recreation section of the undergraduate bulletin.

PETH 473 PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL **3**
See the Health, Physical Education and Recreation section of the undergraduate bulletin.

474 WORKSHOP **1-3; 6**
Workshop in selected areas of educational concern. Designed for both experienced teachers and those preparing to enter the teaching profession. One to three quarter hours; maximum, six quarter hours.

477 INDEPENDENT STUDY IN EDUCATION **1-3; 6**
Directed study in an approved area. Permission from the chairman of the department and supervising instructor is required. One to three quarter hours any quarter; maximum, six quarter hours.

EDUC 478/479 MICROTEACHING—Elementary/Secondary **2**
Students taking elementary will register for EDUC 478; students taking secondary will register for EDUC 479.

Elementary: A teaching laboratory to prepare elementary teachers in skills necessary to effective teaching. Students present brief demonstration lessons to a small class of children. Self-evaluation is supplemented by evaluation of supervisors, practicing teachers and peers, along with video recordings. Prerequisite: at least two methods courses.

Secondary: Teaching procedures which are applicable at any level are considered. Laboratory practice in certain teaching skills will be provided following the microteaching model. The class will meet one night each week and each student will participate weekly in an afternoon teaching laboratory. Prerequisite: one methods course in the student's major or minor area of study.

EDUC 492 EDUCATION OF THE GIFTED **3**
Emphasis is placed upon the design of learning opportunities for gifted children in the light of psychological characteristics of such children.

EDUC 493 SYSTEMS OF THOUGHT **3**
An intensive study of various aspects of philosophical thinking and their bearing upon education. Especially valuable in comprehending much current writing in education. (Ideally should precede or be taken concurrently with EDUC 522.)

EDUC 495 ELEMENTARY SCHOOL GUIDANCE **3**
A study of the rationale for elementary school guidance with emphasis upon current research and issues. Attention will be focused upon the tools and techniques of both classroom and out-of-class guidance functions and services.

GRADUATE COURSES

EDUC 500 GRADUATE SEMINAR **1; 3**
Discussion periods in which faculty and students explore significant issues through the examination and analysis of research and appropriate literature in the area of education. One quarter hour; maximum, three.

EDUC 504 ELEMENTARY SCHOOL CURRICULUM 3
A study of the elementary school curriculum, including objectives, essentials of a good program, varying curriculum patterns and appraisal of current practices.

EDUC 508 SECONDARY SCHOOL CURRICULUM 3
Overview of the secondary school curriculum, with emphasis on the various subject fields; organization of the school for curriculum development; educational objectives; the courses of study; evaluation of the secondary school curriculum.

EDUC 522 PHILOSOPHY OF EDUCATION 3
A study of the basic philosophies and development of educational thinking resulting in the formulation of aims and objectives of education for today's schools.

EDUC 525 EDUCATION IN THE TWENTIETH CENTURY 3
Intended to help a student become conversant with significant problems, issues, trends and proposals affecting the theory and practice of education today.

EDUC 526 SCHOOL FINANCE 3
A course designed for administrators, emphasizing origins and disbursement of school funds.

EDUC 527 SCHOOL PLANT PLANNING AND CONSTRUCTION 3
A survey of how to plan and build schools, including the involvement of the lay citizen. Selection of site, trends in design, function of buildings and plant, costs and obligations will be studied.

EDUC 535 CORRECTIVE READING 3
Analysis, correction and prevention of reading problems are studied along with refinement of group and informal testing. Supervised practicum with pupils having mild disabilities in reading. Prerequisite: EDUC 362; corequisite: EDUC 366.

EDUC 539 SUPERVISION 3
For principals, classroom teachers or those planning to be supervisors. Identifies duties of both teacher and supervisors, and suggests methods for the improvement of teachers in service through a comprehensive supervision program.

EDUC 544 ADMINISTRATION OF THE ELEMENTARY SCHOOL 3
Organization, supervision and administration of elementary schools.

EDUC 550 SCHOOL LAW 3
Utilizing the case study method, this course is designed to acquaint the student with the legal basis for public and parochial school operation in the United States.

EDUC 551 ADMINISTRATION OF THE SECONDARY SCHOOL 3
Problems and procedures in the organization and administration of secondary schools.

EDUC 556 CURRICULUM PLANNING 3
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.

EDUC 558 SCHOOL ACTIVITIES 3
Designed to acquaint the student with a range of the school activities program; to define the purpose of such activities; to provide him with the valid basis for evaluating existing or proposed activities; and to provide opportunity for intensive study of one activity.

EDUC 560 ADMINISTRATIVE PRACTICUM 5
Professional laboratory experience for candidates for an administrative credential. the course is designed to involve each candidate in a variety of practical administrative experiences and to assist in his successful induction into school leadership. By permission of the department chairman.

EDUC 561 METHODS OF RESEARCH 3
Procedures in the selection and evaluation of research projects and techniques in the analysis of research data.

EDUC 567 COMPARATIVE EDUCATION **3**
A comparison of systems and philosophies of education in various parts of the world; emphasis on the role of cultural impacts.

EDUC 575 READINGS IN EDUCATION **2-4**
Advanced study confined to topic areas where the student can demonstrate a considerable degree of expertise due to previous formal studies and/or experience. To be done under the guidance and direction of a faculty member. The student will engage in an analysis of current literature. Written and/or oral reports will be required. By permission of the department chairman.

EDUC 581 PROFESSIONAL PROJECT **2, 4, 6; 6**
Selected areas of advanced study involving reading and research. Formal report required. Prerequisite: consent of department chairman and graduate standing. Two, four or six hours any quarter; maximum, six.

EDUC 590 THESIS **4, 8; 8**

COURSES IN PSYCHOLOGY

PSYC 130 is prerequisite to all other courses in psychology.

PSYC 350 ELEMENTARY STATISTICS **4**
Fundamental procedures for summarizing and interpreting quantitative data from tests and research in the social sciences.

PSYC 360 SMALL GROUP PROCEDURES **3**
A study of small group process by the use of simulations, confrontation techniques and role playing. Especially useful for teachers, ministers, nurses and social workers.

PSYC 375 EXPERIMENTAL PROBLEMS **3**
An advanced course which enables the student to develop skills in experimental design and to apply such skills to an individual research project. Prerequisite: PSYC 350 or equivalent.

400 TOPICS IN PSYCHOLOGY **1-3**
The study of advanced topics through class activities. One to three hours per quarter.

PSYC 405 PSYCHOLOGY OF ORGANIZATIONAL CHANGE **3**
An exploration of the characteristics of social organizations, their structure and systems of communication with particular emphasis on the problems of bringing about change within social organizations such as church, communities, schools, business, organizations, etc.

PSYC 410 BEHAVIOR MODIFICATION **3**
A study of the principles and processes of learning with special emphasis on the shaping and changing of human behavior.

PSYC 415 DYNAMICS OF BEHAVIOR **3**
An introduction to the dynamic mechanisms of human adjustment and behavior.

PSYC 420 INTRODUCTION TO CLINICAL PSYCHOLOGY **3**
Introduction to the application of psychological theories and techniques as used in the clinical setting. Special attention will be given to a survey of various approaches to treatment of emotional problems in clinical practice, hospital and community settings.

PSYC 425 PSYCHOLOGY AND RELIGION **3**
An examination of psychological concepts and human behavior from a Biblical and theological perspective.

PSYC 430 PSYCHOLOGICAL TESTING **3**
Principles of test selection, administration and interpretation are considered together with the contributions and limitation of the major types of standardized tests and inventories used in the behavioral sciences.

PSYC 431 PSYCHOLOGY OF EXCEPTIONAL CHILDREN 3
Characteristics and problems of exceptional children with consideration of essential educational adaptation.

PSYC 435 CHILD PSYCHOLOGY 3
Principles of growth as related to various phases of human development during the preadolescent years: physical, mental and emotional.

PSYC 436 CHILD PSYCHOLOGY LABORATORY 1
Prerequisite or corequisite: PSYC 435.

PSYC 437 CHILDHOOD LEARNING DISORDERS 3
An introduction to play therapy and psychoeducational programs with emphasis on perceptual, sensory and motor areas. Designed for teachers and counselors of young children in both early childhood and elementary school levels. Prerequisite: PSYC 435.

PSYC 440 ADOLESCENT PSYCHOLOGY 3
Principles of growth as related to various phases of human development during the adolescent years—physical, mental and emotional.

PSYC 442 MOTIVATION 3
A study of basic drives and causes of behavior in organisms with emphasis upon human behavior. This course includes a laboratory.

PSYC 444 SOCIAL PSYCHOLOGY 3
The dynamics of social interaction and interpersonal behavior with application to contemporary society.

PSYC 445 SOCIAL PSYCHOLOGY LABORATORY 1
Prerequisite: PSYC 444.

PSYC 446 PSYCHOLOGY OF PERSONALITY 3
Theories concerning personality development, assessment and adjustment will be considered.

PSYC 449 MENTAL HEALTH 3
Physiological and psychological factors related to emotional maturity. Individual mental health, classroom climate, patterns of acceptance and rejection.

PSYC 464 COUNSELING RELATIONSHIPS 3
A practical introduction to psychological theory and skills essential for developing effective and helping relationships with individuals and groups.

474 WORKSHOP IN PSYCHOLOGY 1-3; 6
A workshop designed to provide experiences in investigation and evaluation of contemporary problems and practices in psychology. One to three quarter hours; maximum, six.

477 INDEPENDENT STUDY IN PSYCHOLOGY 1-3; 6
Directed independent study in an approved area. Permission from the chairman of the department and supervising instructor is required. One to three hours any quarter; maximum, six.

PSYC 489 VOCATIONAL DEVELOPMENT THEORY 3
Theories of vocational choice and methods of studying occupations and occupational information are considered as they relate to educational and vocational guidance.

PSYC 490 ABNORMAL PSYCHOLOGY 3
A study of behavioral disturbances, therapeutic measures and theories.

GRADUATE COURSES

PSYC 501 STATISTICS IN RESEARCH 3
An introduction to sampling theory, probability and statistical inference as applied to research analysis and hypothesis testing. Includes simple multivariate techniques and selected distribution-free tests of significance. Prerequisite: PSYC 350 or equivalent.

PSYC 515 COUNSELING THEORIES AND TECHNIQUES 3
A study and application of the theories and techniques for counseling. Professional relationships and ethics are considered.

PSYC 518 GROUP COUNSELING 2
Theories and techniques of counseling in group situations. Prerequisite: PSYC 515.

PSYC 521 PSYCHOLOGY OF LEARNING 3
The physiological and psychological bases for functional learning are discussed, and the experimental evidence supporting psychological hypotheses is reviewed.

PSYC 532 INDIVIDUAL TESTING—Intelligence 4
Supervised experience in the administration, interpretation and writing of psychological reports. Several intelligence instruments will be reviewed. Major emphasis, however, will center on Binet and Wechsler Intelligence Scales. Prerequisite: PSYC 430 and permission of the instructor.

PSYC 534 ASSESSMENT OF THE INDIVIDUAL 2
Methods applicable to comprehensive assessment for describing behavior. Experience in the collection and analysis of data will be provided. Prerequisite: PSYC 532.

PSYC 563 FIELD EXPERIENCE 3
Designed to provide a broad spectrum of experience in actual field settings under supervised direction. Permission of the instructor required.

PSYC 565 PRACTICUM IN COUNSELING 5
Professional experience in the counseling function. Prerequisites: PSYC 515; PSYC 534 and permission of the instructor.

SUPPORTING COURSES

Selected courses are available, with advisement, from the following departments: Art, Biology, Business, Chemistry, Communications, English, Health, Physical and Recreational Education, History, Home Economics, Library Science, Mathematics, Modern Languages, Music, Office Administration, Physics, Sociology and Social Work.

See the undergraduate bulletin for course descriptions and prerequisites.

ART

ART 364, 365, 366 SCULPTURE 2, 2, 2

ART 400 TOPICS IN ART 1-3
The study of advanced topics through class activities. One to three hours per quarter.

ART 477 INDEPENDENT STUDY IN ART 1-3; 6
One to three hours any quarter; maximum, six.

BIOLOGICAL SCIENCES (See pages 24-28)

BUSINESS

400 TOPICS IN BUSINESS 1-3
The study of advanced topics through class activities. One to three hours per quarter.

ACCT 421 ADVANCED ACCOUNTING 4

ACCT 423 CPA REVIEW 4

ACCT 425 ACCOUNTING THEORY 4

ACCT 427 FUND ACCOUNTING 4

ACCT 430 AUDITING CONCEPTS 3

ACCT 431 AUDITING PRACTICES 3

BUED 474 WORKSHOP IN BUSINESS EDUCATION 2

BUED 477 INDEPENDENT STUDY IN BUSINESS 1-3; 6
Permission from the chairman of the department required. One to three hours per quarter; maximum, six.

BUED 491 PRINCIPLES OF BUSINESS EDUCATION 2

BUED 495 BUSINESS CURRICULUM 2

BUED 496 SEMINAR IN BUSINESS EDUCATION 2

ECON 441 MONEY AND BANKING 4

ECON 443 COMPARATIVE ECONOMICS SYSTEMS 4

ECON 445 ECONOMICS OF FOREIGN TRADE 4

FINA 451 INVESTMENTS 4

FINA 453 CREDIT ADMINISTRATION 4

FINA 455 PUBLIC FINANCE 4

MGMT 371 JOB ANALYSIS 2

MGMT 375 SUPERVISION 2

MGMT 475 HEALTH CARE ORGANIZATION AND MANAGEMENT 2

MGMT 476 HUMAN RELATIONS IN MANAGEMENT 4

MGMT 478 DENOMINATIONAL POLICY 2

MGMT 479 BUSINESS POLICIES	2
MKTG 481 PUBLIC RELATIONS	4
MKTG 483 PURCHASING	4
MKTG 485 RETAIL STORE OPERATION AND MANAGEMENT	4

CHEMISTRY

CHEM 351, 352, 353 PHYSICAL CHEMISTRY	4, 4, 4
CHEM 400 TOPICS IN CHEMISTRY	1-3
CHEM 427, 428 ADVANCED ORGANIC CHEMISTRY	2, 2
CHEM 431, 432 BIOCHEMISTRY	4, 3
CHEM 461, 462 ADVANCED ANALYTICAL CHEMISTRY	3, 3
CHEM 477 INDEPENDENT STUDY IN CHEMISTRY	1-3; 6

COMMUNICATIONS

SPECH 400 TOPICS IN COMMUNICATION	1-3
SPCH 401 INTRODUCTION TO GENERAL SEMANTICS	2
SPCH 443 PERSUASIVE SPEAKING	3
SPCH 453 RHETORIC AND PUBLIC ADDRESS	3
SPCH 472 METHODS OF TEACHING SPEECH COMMUNICATION	3
SPCH 477 INDEPENDENT STUDY IN SPEECH	1-3; 6

SPEECH PATHOLOGY AND AUDIOLOGY

SPPA 372 AUDIOLOGY II	3
SPPA 387 STUTTERING: THEORIES AND THERAPIES	3
SPPA 461 DIAGNOSIS IN SPEECH PATHOLOGY	3
SPPA 473 CLEFT PALATE SPEECH	3
SPPA 475 VOICE DISORDERS	3

JOURNALISM

JOUR 400 TOPICS IN JOURNALISM	1-3
JOUR 412 SCRIPT WRITING	3
JOUR 477 INDEPENDENT STUDY IN JOURNALISM	1-3; 6

ENGLISH

ENGL 354 ROMANTIC ENGLISH LITERATURE	4
ENGL 355 VICTORIAN LITERATURE	4
ENGL 356 TWENTIETH-CENTURY ENGLISH LITERATURE	4
ENGL 364 ROMANTIC AMERICAN LITERATURE	4
ENGL 365 AMERICAN REALISM AND NATURALISM	4
ENGL 366 TWENTIETH-CENTURY AMERICAN LITERATURE	4
ENGL 374 LITERATURE IN THE ELEMENTARY SCHOOL	3
ENGL 375 LITERATURE IN THE SECONDARY SCHOOL	3

ENGL 384	ENGLISH GRAMMARS AND LINGUISTICS	4
ENGL 394	DIRECTED READING	1-3
ENGL 444	MAJOR AUTHOR	3
ENGL 445	SHAKESPEARE	3
ENGL 454	LITERATURE OF THE BIBLE	4
ENGL 455	CLASSICAL BACKGROUNDS	3
ENGL 464	DEVELOPMENT OF ENGLISH DRAMA	3
ENGL 465	DEVELOPMENT OF THE ENGLISH NOVEL	3
ENGL 466	PHILOSOPHICAL AND CRITICAL PROSE	3
ENGL 472	METHODS OF TEACHING HIGH SCHOOL ENGLISH	4
ENGL 477	INDEPENDENT STUDY IN ENGLISH	1-3; 6
ENGL 484	HISTORY OF THE ENGLISH LANGUAGE	3
ENGL 496	SEMINAR	3
ENGL 501	INDEPENDENT STUDY	1
ENGL 506	LITERARY CRITICISM	3

HEALTH, PHYSICAL AND RECREATIONAL EDUCATION

HLED 370	FIELD TRAINING	3
HLED 384	SCHOOL HEALTH PROGRAMS	3
HLED 472	METHODS OF SCHOOL HEALTH INSTRUCTION	3
PETH 325	KINESIOLOGY	3
PETH 363, 364, 365	ANALYSIS OF TEAM ACTIVITIES	2, 2, 2
PETH 400	TOPICS IN PHYSICAL EDUCATION	1-6
PETH 426	PHYSIOLOGY OF EXERCISE	3
PETH 472	METHODS OF TEACHING SECONDARY PHYSICAL EDUCATION	3
PETH 473	PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL	3
PETH 477	INDEPENDENT STUDY IN HEALTH AND PHYSICAL EDUCATION	1-3; 6
PETH 484	ADMINISTRATION OF HEALTH, PHYSICAL AND RECREATIONAL EDUCATION	3
PETH 494	HISTORY OF HEALTH, PHYSICAL EDUCATION AND RECREATION	3
PETH 496	SEMINAR	2

HISTORY

HIST 400	TOPICS IN HISTORY	1-6
HIST 477	INDEPENDENT STUDY IN HISTORY	1-3; 6
HIST 496, 497	SEMINAR	0, 3

EUROPEAN HISTORY

HIST 374, 375 HISTORY OF ENGLAND	4, 4
HIST 435 HISTORY OF MODERN GERMANY	4
HIST 463 THE MIDDLE AGES	4
HIST 465 RENAISSANCE AND REFORMATION	4
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