GRADUATE BULLETIN

1987-88
FOR INFORMATION

ADMISSIONS .......................... 509/527-2127
Application Blanks
Bulletins

RECORDS .............................. Chryla Osborne Dean
Academic Information
General Information
Transcripts
or
Transfer Student Information
509/527-2811

FINANCES .............................. Cassie Rapaport, Director
Current Financial Information
Work Opportunities
Financial Aid
Financial Planning
Loans and Grants
Payment Arrangements

RESIDENCE HALL LIVING .............. Lynne Pohanka, Dean of Men
Room Reservations
Simmler Hall
509/527-2111
Ba Hunter, Dean of Women
Fornum-Grover Hall

STUDENT AFFAIRS ..................... Wilbert Moler, Vice President
Automobile Registration
Off-Campus Housing
Student Life
509/527-2211

COLLEGE ADDRESS .................... Walla Walla College
Portland Campus
Rosario Marine Station

GENERAL TELEPHONE NUMBER ..... 509/527-2215
1-800-572-9964
1-800-572-3900
509/527-6101
360/293-2326

RESIDENCE HALL TELEPHONE NUMBERS
Simmler-Grover
Simmler Hall
509/527-3732
Simmler East
509/527-3601
Portland Campus Residence Hall
509/527-6118

Admission office hours are closed from Friday noon until Monday morning and on
legal holidays. The administrative offices are available on Sundays by appointment.
### Walla Walla College
#### Academic Calendar 1987-88

**Autumn Quarter**
- **September 29** T  Registration
- **October 7** W  Last Day to Register
- **October 12** M  *Graduate Record Examinations*
- **October 14** W  Last Day for Registered Students to Add a Class or Change to Audit
- **November 24** T  Last Day to Withdraw from Classes
- **November 25** W  Thanksgiving Vacation Begins (noon)
- **November 29** S  Thanksgiving Vacation Ends (5:00 p.m.)
- **December 14** M  *Graduate Record Examinations*
- **13, 14, 15, 16** SMTW  Final Exams

**Winter Quarter**
- **January 4** M  Registration
- **January 5** T  Instruction Begins
- **January 13** W  Last Day to Register
- **January 20** W  Last Day for Registered Students to Add a Class or Change to Audit
- **February 3** W  Snow Frolic
- **February 8** M  *Graduate Record Examinations*
- **February 23** T  Last Day to Withdraw from Classes
- **Mar. 13, 14, 15, 16** SMTW  Final Exams

**Spring Quarter**
- **March 22** T  Registration
- **March 23** W  Instruction Begins
- **March 30** W  Last Day to Register
- **April 5** T  Last Day to File Master's Degree Order Form
- **April 6** W  Last Day for Registered Students to Add a Class or Change to Audit
- **April 11** M  *Graduate Record Examinations*
- **May 4** W  Campus Day
- **May 10** T  Last Day to Withdraw from Classes
- **30, 31, June 1** MTW  Final Exams
- **5** S  Commencement (10:00 a.m.)

**Summer Quarter**
- **June 6** M  *Graduate Record Examinations*
- **June 12** S  Registration
- **June 12** S  Last Day to File Master's Degree Order Form
- **July 17** S  O.R.E. — Full Terming
- **July 22** F  Last Day to Complete Final Master's Exam
- **August 6** Sa  Commencement (9:00 p.m.)

*Registrations with the Counseling and Guidance Center for Graduate Record Examinations must be made at least eight weeks prior to test date.*
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**WALLA WALLA COLLEGE**
**ACADEMIC CALENDAR 1987-88**

**AUTUMN QUARTER**
- September 29: Registration
- October 7: Last Day to Register
- November: Last Day for Registered Students to Add a Class or Change to Audit
- November 24: Last Day to Withdraw from Classes
- Thanksgiving: Thanksgiving Begins (noon)
- December 29: Thanksgiving Vacation Ends (1:00 p.m.)
- December 14: *Graduate Record Examinations
- 13, 14, 15, 16: SMTW Final Exams

**WINTER QUARTER**
- January 4: Registration
- January 5: Instruction Begins
- January 13: Last Day to Register
- January 20: Last Day for Registered Students to Add a Class or Change to Audit
- February 3: Snow Frolic
- February 8: *Graduate Record Examinations
- January 23: Last Day to Withdraw from Classes
- March 13, 14, 15, 16: SMTW Final Exams

**SPRING QUARTER**
- March 23: Registration
- March 23: Instruction Begins
- April 6: Last Day to Register
- April 5: Last Day to File Master's Degree Order Form
- May 11: Last Day for Registered Students to Add a Class or Change to Audit
- May 4: *Graduate Record Examinations
- May 10: Campus Day
- May 10: Last Day to Withdraw from Classes
- June 30, 31: Final Exams
- May 5: Commencement (10:00 a.m.)

**SUMMER QUARTER**
- June 6: *Graduate Record Examinations
- June 12: Registration
- June 12: Last Day to File Master's Degree Order Form
- July 7: C.O.E. - Full Term
- August 22: Last Day to Complete Final Master's Exam
- August 5: Commencement (9:00 p.m.)

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

BOARD OF TRUSTEES

Bruce Johnston, Chair
Jack Bergman, Secretary

ADMINISTRATION

H. J. Bergman, Ph.D., President
Audre Thompson, Ph.D., Provost and Dean for Academic Administration
Manford Simcock, M.A., Vice President for Financial Administration
Walt Muske, M.A., Vice President for Student Administration
Paul Tarpel, B.A., Vice President for College Advancement
Robert Gardner, Ph.D., Associate Dean for Academic Administration

ADMINISTRATIVE STAFF

ACADEMIC ADMINISTRATION
Chair, Department of Art, Thomas J. Emmenegger, M.F.A.
Chair, Department of Biology, Ronald L. Carter, Ph.D.
Chair, Department of Business, Robert C. Schwabt, Ph.D.
Chair, Department of Chemistry.
Chair, Department of Communications, Loren Dickerson, Ph.D.
Chair, Department of Computer Science, C. Michael Bell, M.S.E.E.
Chair, (Acting), Department of Education and Psychology, Dale A. Johnson, Ph.D.
Chair, Department of English, Beverly C. Beene, Ph.D.
Chair, Department of Health, Physical Education and Recreation, Gary M. Hangberg, Ph.D.
Chair, Department of History Roland Blash, Ph.D.
Chair, Department of Home Economics, Merlene L. Olmsted, M.A.
Chair, Department of Industrial Technology, Chester D. Blake, Ed.D.
Chair, Department of Library Science, Edwood L. Mahan, M.S.E.S.
Chair, Department of Mathematics, Melvin S. Long, Ph.D.
Chair, Department of Modern Languages, Reinhard Cernacki, M.A.
Chair, Department of Music, Dan M. Shulte, M.Mus.
Chair, (Acting), Department of Office Administration, Nancy Cleveland, M.Ed.
Chair, Department of Physics, Gordon O. Johnson, Ph.D.
Chair, Department of Sociology/Social Work, Wilma M. Heppert, Ph.D.
Dean, School of Graduate Studies, Hollibert E. Phillips, Ed.D.
Dean, School of Engineering, Rodney Heister, Ph.D.
Dean, School of Nursing, Frances L. Fickes, D.N.Sc.
Assistant Dean, School of Nursing, Carol Brown, Ph.D.
Dean, School of Theology, John C. Buntz, Ph.D.

MARINE STATION

Ronald L. Carter, Ph.D., Director

GRADUATE COUNCIL

Randal L. Carter, ex officio
Dale A. Johnson, ex officio
Orly G. Osborn, ex officio
Hollibert E. Phillips, ex officio, chair
Audre Thompson, ex officio
Rodney Heister, P. 1987-88
Wilma Heppert, P. 1988-89
Lawrence McCleod, P. 1987-88
Gary Simcock, P. 1982-88
Larry Neyerlin, P. 1988-90
Kenneth Watson, P. 1988-90

THE FACULTY

BIOLGY

Bar Carter, Chair and Associate Professor of Biology (1986)
B.A. 1967, Columbia Union College
B.Ed. 1974, Letra Linda University

Susan C. Dixon, Assistant Professor of Biology (1982)
B.S. 1976, Walla Walla College
M.A., 1971, Andrews University
D.D.T. 1971, Oxford University

Joseph G. Gaducha, Professor of Biology (1975)
B.S. 1967, Walla Walla College
M.A., 1971, Andrews University
D.D.T. 1971, Oxford University

Albert R. Gable, Associate Professor of Biology (1983)
B.S. 1992, Letra Linda University
M.S. 1992, Ph.D. 1996, University of Minnesota

Lawrence R. McCleod, Professor of Biology (1983)
B.A. 1982, Andrews Union College
M.A. 1983, Ph.D. 1987, Duke University

Donald W. Rugby, Professor of Biology (1986)
B.A. 1980, Letra Linda University
M.A. 1984, Walla Walla College
Ph.D. 1987, Andrews University

EDUCATION AND PSYCHOLOGY

Dale A. Johnson, Acting Chair, Professor of Education and Psychology (1974)
B.A. 1964, Union College
M.A. 1987, University of Nebraska
Ph.D. 1976, University of California, Riverside
WALLA WALLA COLLEGE
BOARD OF TRUSTEES

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Jack Bergman, Secretary

ADMINISTRATION

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Alden Thompson, Ph.D., Provost and Dean for Academic Administration
Manford Simcoek, M.A., Vice President for Financial Administration
Walt Moske, M.A., Vice President for Student Administration
Paul Tarpey, B.A., Vice President for College Advancement
Robert Gardner, Ph.D., Associate Dean for Academic Administration

ADMINISTRATIVE STAFF

ACADEMIC ADMINISTRATION

Chair, Department of Art, Thomas J. Emmenon, M.F.A.
Chair, Department of Biology, Ronald L. Carter, Ph.D.
Chair, Department of Business, Robert C. Schwaab, Ph.D.
Chair, Department of Chemistry, 
Chair, Department of Communications, Loren Dickinson, Ph.D.
Chair, Department of Computer Science, C. Michael Bell, M.S.E.E.
Chair, (Acting), Department of Education and Psychology, Dale A. Johnson, Ph.D.
Chair, Department of English, Beverly G. Beem, Ph.D.
Chair, Department of Health, Physical Education and Recreation, Gary M. Harmon, Ph.D.

Chair, Department of History Roland Blash, Ph.D.
Chair, Department of Home Economics, Merlene L. Olmsted, M.A.
Chair, Department of Industrial Technology, Chester D. Blake, Ed.D.
Chair, Department of Library Science, Eldred L. Mahley, M.S.L.S.
Chair, Department of Mathematics, Melvin S. Lang, Ph.D.
Chair, Department of Modern Languages, Reinhard Cornecki, M.A.
Chair, Department of Music, Dan M. Shults, M.Mus.
Chair, (Acting), Department of Office Administration, Nancy Cleveland, M.Ed.
Chair, Department of Physics, Gordon C. Johnson, Ph.D.
Chair, Department of Sociology/Social Work, Wilma M. Hepper, Ph.D.
Dean, School of Graduate Studies, Halbert E. Phillips, Ed.D.
Dean, School of Engineering, Rodney Heister, Ph.D.
Dean, School of Nursing, Frances L. Fickens, D.N.Sc.
Assistant Dean, School of Nursing, Carol Brown, Ph.D.
Dean, School of Theology, John C. Brunt, Ph.D.

MARINE STATION

Ronald L. Carter, Ph.D., Director

GRADUATE COUNCIL

Randal L. Carter, ex officio
Dale A. Johnson, ex officio
Orly Osborn, ex officio
Halbert E. Phillips, ex officio, chair
Alden Thompson, ex officio
Rodney Heister, B.A. 1987
Willa Hepper, P. 1988-89
Lawrence McCleary, P. 1987-88
Gary Sinnamon, P. 1982-88
Lenn Vokeza, P. 1988-90
Kenneth Wiggles, P. 1988-90

THE FACULTY

Biology

Ron Carter, Chair and Associate Professor of Biology (1980)
B.A., 1969, Columbia Union College
Ph.D., 1975, Loma Linda University

Susan C. Dixon, Assistant Professor of Biology (1982)
B.S., 1979, Walla Walla College
M.A., 1971, Andrews University
Ph.D., 1973, Oxford University

Joseph G. Galusha, Professor of Biology (1975)
B.S., 1962, Walla Walla College
M.A., 1971, Andrews University
Ph.D., 1973, Oxford University

Albert E. Grable, Associate Professor of Biology (1982)
B.S., 1959, Loma Linda University
M.S., 1962, Ph.D., 1964, University of Minnesota

Lawrence L. McCleary, Professor of Biology (1975)
B.A., 1962, Adams Union College

Donald W. Rupke, Professor of Biology (1976)
B.S., 1950, Loma Linda University
M.A., 1954, Walla Walla College
Ph.D., 1957, Loma Linda University

EDUCATION AND PSYCHOLOGY

Dale A. Johnson, Acting Chair, Professor of Education and Psychology (1974)
B.A., 1966, Union College
M.A., 1967, University of Nebraska
Ph.D., 1970, University of California, Riverside

No News
R. Gary Bemeklt, Professor of Education and Psychology (1981)
B.A. 1968, Union College
M.A. 1969, University of Denver
Ph.D. 1975, University of Denver

Harold T. Och, Professor of Education and Psychology (1969)
B.A. 1952, Whitman College
M.Ed. 1957, Eastern Washington State College
Ed.D. 1972, University of Idaho

Hollinger E. Phillips, Professor of Philosophy and Education (1970)
B.A. 1942, Haverford College
M.A. 1948, Barnard College
Ph.D. 1952, Boston University

Gail S. Rindskopf, Assistant Professor of Education (1980)
B.A. 1977, Pacific Union College
M.Ed. 1981, University of Washington
Ph.D. 1986, University of Washington

Vivie Y. Ward, Assistant Professor of Education (1961)
B.S. 1972, Union College
M.A. 1977, Andrews University
Doctoral Candidate 1981, Washington State University

SPECIALIZATION AREAS (Secondary), CHAIRS

Beverly G. Beene, Professor of English (1970)
B.A. 1957, Union College
M.A. 1959, Andrews University
Ph.D. 1974, University of Nebraska

Roland D. Blach, Professor of History (1958)
B.A. 1948, M.A. 1948, California State College at Los Angeles
Ph.D. 1958, Washington State University

Chester D. Blake, Professor of Industrial Technology (1964)
B.S. 1943, Wiley College
M.A. 1968, San Jose State College

Renaud L. Carter, Associate Professor of Biology (1964)
B.A. 1960, Columbia Union College
Ph.D. 1970, Loma Linda University

Nancy Cleveland, Assistant Professor of Business Administration (1977)
B.S. 1979, Walla Walla College
M.Ed. 1979, Walla Walla College

Bernhard Czuraws, Associate Professor of Modern Languages (1967)
B.A. 1948, Alliance Union College
M.A. 1957, Ashland College
M.Ed. 1967, Ashland College

Loree Dickson, Professor of Communications (1962)
B.A. 1937, Union College
M.A. 1960, University of Nebraska
Ph.D. 1968, University of Denver

Thomas E. Emmerson, Associate Professor of Art (1960)
B.A. 1942, Walla Walla College
B.F.A. 1947, M.F.A. 1959, Otis Art Institute of Los Angeles County

Gary M. Humphreys, Professor of Health, Physical and Recreation Education (1972)
B.A. 1971, Loma Linda University
M.A. 1974, California State University at Fresno
Ph.D. 1982, University of Oregon

Willa M. Herpelt, Professor of Sociology and Social Work (1973)
B.A. 1967, Union College
M.A. 1966, Ph.D. 1976, University of Nebraska

Garrett O. Johnson, Professor of Physics (1974)
B.S. 1958, Walla Walla College
M.S., Ph.D. 1971, California Institute of Technology

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

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

Marlene L. Olmsted, Assistant Professor of Home Economics (1971)
B.A. 1957, Walla Walla College
M.A. 1975, Loma Linda University

Robert Charles Schwab, Associate Professor of Business (1981)
B.S. in Bus. Admin. 1973, Alliance Union College
M.B.A. 1973, Andrews University
Ph.D. 1982, University of Oregon

Das M. Shultz, Professor of Music (1971)
B.S. 1941, Alliance Union College
M.M. 1967, Andrews University

Chair, Department of Chemistry
R. Gary Beskid, Professor of Education and Psychology (1982)
B.A. 1968, Union College
M.A. 1969, University of Denver
Ph.D. 1980, University of Denver

Harold T. Oden, Professor of Education and Psychology (1969)
B.A. 1952, Walla Walla College
M.Ed. 1957, Eastern Washington State College
Ed.D. 1972, University of Idaho

Holllibert E. Phillips, Professor of Philosophy and Education (1970)
B.A. 1948, Western Oregon College
M.A. 1949, Andrews University
Ed.D. 1956, Boston University

Gail S. Rinehart, Assistant Professor of Education (1980)
B.A. 1974, Pacific Union College
M.A. 1980, University of Washington
Ph.D. 1986, University of Washington

Verle Y. Ward, Assistant Professor of Education (1961)
B.S. 1976, Union College
M.A. 1980, Andrews University
Doctoral Candidate 1981, Washington State University

SPECIALIZATION AREAS (Secondary), CHAIRS

Bevrlie G. Bress, Professor of English (1976)
B.A. 1972, Union College
M.A. 1976, Andrews University
Ph.D. 1976, University of Nevada

Roland G. Blais, Professor of History (1968)
B.A. 1962, M.A. 1967, California State College at Los Angeles
Ph.D. 1975, Washington State University

Chester D. Blake, Professor of Industrial Technology (1961)
B.S. 1961, Walla Walla College
M.A. 1968, San Jose State College

Rolf L. Carter, Associate Professor of Biology (1974)
B.A. 1960, Columbia Union College
Ph.D. 1970, Letters-Linda University

Renee Cleveland, Assistant Professor of Office Administration (1977)
B.A. 1976, Walla Walla College
M.Ed. 1979, Walla Walla College

Bernard Corzetti, Associate Professor of Modern Languages (1967)
B.A. 1958, Allen University
M.A. 1958, Maloney College

Loren Dickerson, Professor of Communications (1961)
B.A. 1952, Union College
M.A. 1960, University of Nevada
Ph.D. 1969, University of Denver

Thomas D. Emmerman, Associate Professor of Art (1960)
B.A. 1957, Walla Walla College
B.B.A. 1974, M.B.A. 1979, Ohl Art Institute of Los Angeles County

Gary M. Humphrey, Professor of Health, Physical and
Recreational Education (1972)
B.A. 1972, Letters-Linda University
B.A. 1974, California State University at Fresno
B.A. 1980, University of Oregon

William H. Herbst, Professor of Sociology and Social Work (1971)
B.S. 1957, Union College
M.A. 1958, Ph.D. 1959, University of Nebraska

Glenda O. Johnson, Professor of Physics (1974)
B.S. 1970, Walla Walla College
Ph.D. 1970, University of Illinois

Melvin J. Ling, Professor of Mathematics (1967)
B.S. 1957, Walla Walla State Teachers College
M.A. 1958, Idaho State College
Ph.D. 1972, University of Northern Colorado

Ehud L. Rabin, Assistant Professor of Library Science and
Director of Libraries (1968)
B.A. 1949, Walla Walla College
M.S.S., 1959, University of Southern California

Mable E. Strother, Assistant Professor of Home Economics (1971)
B.A. 1957, Walla Walla College
M.A. 1974, Letters-Linda University

Robert Charles Swope, Associate Professor of Business (1969)
M.B.A. 1973, Andrews University
Ph.D. 1980, University of Oregon

Duo M. Shultz, Professor of Music (1971)
B.A. 1942, Union College
M.M. 1945, Andrews University

Chao, Department of Chemistry
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 1841, and which has been reconstructed by the federal government as the Whitman Mission. The scenic Blue Mountains to the east are but a few minutes' drive from the campus and offer unusual opportunities for recreation and relaxation.

The principal objective of the College is the fostering of an intelligent understanding of the 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.

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.
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.

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DEGREES OFFERED

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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
- S — Satisfactory (C or better)

W — Withdrawal

The I (incomplete) is only given for special circumstances and must be made up by 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. Individual work on the incomplete will have the I show on their transcripts until the work is completed.

The IP (in progress) is given by the instructor for independent work such as fieldwork, research, and thesis which exceed and continue 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) will be given by the instructor when a student officially drops a course at least three weeks prior to the end of the quarter.

An AU (Audit) is used for class attendance and participation generally excluding exams and outside of class assignments. Arrangements for an audit may be made with the instructor.

Grade of C or better in the graduate program, excluding deficiencies, will be computed to the grade-point average. Deficiencies may not be made up by audit, and a grade of S will not be an acceptable course that has a mandatory SNC grading.

UNIFORM COURSE NUMBERS

Certain course numbers are reserved for courses that are in use in a general manner as to be found in many departments. The prefixes listed to the number designates the discipline. The following are courses that carry more than one through this bulletin:

400 TOPICS

Each academic department may offer topics courses in specialized or experimental areas on either the lower division or advanced level. These courses are conducted through regular class activities and are approved by the Curriculum Committee in a one-time offering. See the SMC Schedule for all approved topics courses. One to four hours per quarter except summer enrolled course taken in the Marine Station.

489 SUPPLEMENTAL STUDIES

Though a directed study program, the student may supplement previous course work where it is judged that portions of a mature course on the major or minor have been covered. Directly this will occur only with consent of the student or within a program that has undergraduate major curriculum. A study proposal must be approved by the department faculty and the Graduate Council and should indicate the methods of evaluation. May not be substituted for existing courses in the major or minor.

409 ADVANCED STUDY

Though advanced directed study, the student may enhance his major or minor in breadth or depth of topics not covered by the department curriculum. The study proposal must be approved by the department faculty and the Graduate Council and should indicate the methods of evaluation. May not be substituted for existing courses in the major or minor.

474 WORKSHOPS

1-4-6

479 DIRECTED RESEARCH/PROJECT

1-3-6

Allow the student to do research in the laboratory, under the laboratory, or technical project in the major. Some departments may allow this course on the minor. A project proposal is prepared to define the scope of the work and the method of reporting. Requires permission of the departmental faculty with a copy of the proposal sent to the Office of Academic Affairs. See individual departments for specific course description.

490 DIRECTED FIELD WORK/PRACTICUM/EXPERIENCE

2-4-6

499 COLLOQUIUM

0

497-498 SEMINAR

1-4-4

500 TOPICS

1-4-6

GRADUATE FACILITIES

Life Sciences Complex

The facilities of the department of Biology in the Life Sciences Complex include staff and graduate student offices, classrooms and teaching laboratories, controlled environment rooms and chambers, radiotesthes, laboratories, animal and greenhouse facilities, photographic darkrooms, museum and a shop.

Marine Station

Aid Department of Biology facilities occupy 40 acres of beach and timberland (Kasa to Brow), a design (Desi State Park, Anacortes, Washington. The 35-35 building includes a laboratory building, an assembly hall, shops, 24-29 chub student and staff housing.

Sprick Hall

The Department of Education and Psychology is housed in a modern, acoustically-conditioned, library building. Facilities include offices for staff and graduate assistants, laboratories for training 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. 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. Microcomputers make accessible microforms of scholarly material. The curriculum library, located in Smith Hall, contains a large selection of books and periodicals.
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:
N — Incomplete
I — In Progress
S — Satisfactory (C or better)
W — Withdrawal

The I (Incomplete) is only given for special circumstances and must be made up by 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, Thesis which existed and continues 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 three weeks prior to the end of the quarter.

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

Grades of any course in the graduate program, excluding deficiencies, will be compared to the grade-point average. Deficiencies may not be made up by audit, and a grade of S will not be acceptable except for courses that have a mandatory SNC grading.

UNIFORM COURSE NUMBERS

Certain course numbers are reserved for classes that are used as a general nature as to be found in many departments. The prefix assigned to a number designates the discipline. The following are courses that carry both the term through this bulletin:

400 TOPICS

Each academic department may offer topics courses in specialized or experimental areas on either the lower division or advanced level. These courses are conducted through regular class activities and are approved by the Curriculum Committee in a one-time offering. The 400 Scholius for all approved topics courses. One to four quarter hours (except those covered courses taken in the Marine Station).

499 SUPPLEMENTAL STUDIES

Though a directed study program the student may supplement previous coursework with one in which it is judged that portions of a course may join with the program of study. Usually the student will only with permission of the student or within a program that has undergraduate
FINANCIAL AND OTHER INFORMATION

Board Actions
Actions voted by the College Board, Faculty, or Finance Committee at any time shall have equal force or, if necessary, supersede statements published in this bulletin.

Payments Required to Register
An advance payment of $2,500 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 $3,000.

Tuition
1-12 quarter hour — $378 per quarter hour
The tuition includes all laboratory fees.

General Fee
A general fee of $25 per quarter is charged for all students registered for six or more quarter hours which provides student association membership and ID card.

Special Fees
Application Fee, new students (nonrefundable) $20.00
Appl. Class
College Campus One-half Regular Tuition .50
Change of Program (class added or dropped), each 3.00
Classes with numerous or extended field trips Special Fee
Degree, Master's Diploma, Master's 15.00
In absentia charge 15.00
M.A. and M.S. thesis binding (two copies) 35.00
Academic Regalia (gown, hood) Actual cost
I.D. Card Replacement 20.00
Late Registration (plus $2 per day from published registration date)
Transfer (must be requested in writing)
Fee copy 2.00
Additional copies, each 2.00

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


- Students dropping all classes during this period will be charged a processing fee of $50 or 5% of tuition, whichever is less.
- Room Rent: 30% during first week of quarter
- 80% during second week of quarter
- 70% during third week of quarter
- 60% during fourth week of quarter
- 50% during fifth week of quarter
- 40% during sixth week of quarter
- 30% during seventh week of quarter
- 20% during eighth week of quarter

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 the student withdraws. STUDENTS WHO LEAVE THE COLLEGE 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, room rent, and minimum board charges for dorm students will be charged in advance at the beginning of each quarter. Food service charges above the minimum will be 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.

Student Insurance
Walla Walla College provides injury and accident insurance on a mandatory basis at an estimated cost to the student of $30 per year. Students enrolling winter, spring, or summer quarters will play a reduced premium. In addition, students may elect to purchase sickness insurance at an additional estimated cost of $160 per year. Married students may also purchase similar coverage for spouse and dependent children. A detailed brochure will be available at registration time.

No changes or refunds are allowed on the sickness insurance after the information is sent to the insurance company (two weeks after the first day of classes). The accident insurance is not refundable if a student drops after the fourth day of classes.

Student Health Center
Clinical services are available for students requiring medical attention. Prescriptions and other medicines are available at special prices. In case of serious illness or injury, the Walla Walla General Hospital provides complete service to students. Financial arrangements must be made directly with the hospital.
of textbooks, children's literature books, a collection of mounted pictures, films, tapes and phonograph records. The library on the Portland campus serves specifically the students of nursing assigned there to obtain their clinical practice. The combined libraries contain approximately 145,000 volumes. There are about 925 continually 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.

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Payments Required to Register
An advance payment of $2,500 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 $3,500.

Tuition
1-12 quarter hour — $178 per quarter hour
The tuition includes all laboratory fees.

General Fee
A general fee of $25 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) | $20.00 |
| Age in Class: | One-half Regular Tuition |
| Change of Program (class added or dropped), each | 3.00 |
| Classes with numerous or extended field trips | Special Fee |
| Degree, Master's | Diploma |
| In absentia charge | 15.00 |
| M.A. and M.S. thesis binding (two copies) | 35.00 |
| Academic Regalia (gown, hood) | Actual cost |
| L.D. Card Replacement | 5.00 |
| Late Registration (plus $2 per day from published registration date) | 20.00 |

Transcript (must be requested in writing)

Free
Addition copies, each | 2.00 |

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

- Winter: 100% through the fourth day of classes after regularly scheduled registration on the Ways Walla College Campus
- 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: 90% during first week of quarter
80% during second week of quarter
75% during third week of quarter
70% during fourth week of quarter
50% during fifth week of quarter
40% during sixth week of quarter
30% during seventh week of quarter
20% during eighth week of quarter

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/she withdraws. STUDENTS WHO LEAVE THE COLLEGE WITHOUT COMPLETING WITHDRAWAL PROCEDURES WILL BE CHARGED UNTIL PROPER ARRANGEMENTS ARE MADE.

Past Due Accounts
A finance charge calculated on 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, room rent, and minimum board charges for dorm students will be charged on the first of the month. Food service charges above the maximum will be billed on the close of each month. Village students may obtain their statements from the cashier in the Accounting Office.

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No changes or refunds are allowed on the sickness insurance after the information but forms due to the insurance company (two weeks after the first day of each quarter).

The accident insurance is not refundable if a student drops after the fourth day of classes.

Student Health Center
Clinical facilities are available for students requiring medical attention. Prescriptions and other medicines are available at special prices. In case of serious illness or injury, the Walla Walla General Hospital provides complete service to students. Financial arrangements must be made directly with the hospital.
Apartments
The College owns 50 units of one- and two-bedroom apartments which are available for married students. These apartments rent for reasonable amounts. Apartments in the community, furnished and unfurnished, are also available for married students. For information, write to the Director of College Rentals.

Academic Computer Center
Walla Walla College offers computer services to a wide variety of college users through its Academic Computer Center. Personal computers, classroom settings are available for instructional use by all faculty, staff and students. Terminals to a mini-computer are located in several cluster areas on campus.

Release of Transcripts or Degrees
By action of the board of trustees of the College, a diploma 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 or certifies. Requests for transcripts must be in writing.

Loans, Assistantships
The following loan funds are recommended and applications may be obtained from the Financial Aid Office.

The Guaranteed Student Loan Program (GSLP). This allows a student to borrow directly from commercial lenders and credit unions. These loans are available to students who are citizens or nationals of the United States, or those in the country for other than a temporary purpose. These loans, which have an annual interest rate of 9 percent, do not have to be repaid until six months after student status has terminated. For graduate students, the annual loan limit is $5,000; the aggregate limit is $25,000, including undergraduate loans.

National Direct Student Loan. The National Direct Student Loan is made available through the United States Department of Education and Walla Walla College. To qualify, the student must have financial need as evidenced by submission of a FAF. Application for financial aid and Financial Aid Form (FAF) by April 1. Priority in granting this aid is given to students with the greatest financial need. Repayments begin after the applicant's student status terminates. Applications and FAF are available through the college Financial Aid office.

Graduate Assistantships
A limited number of graduate assistantships is 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 students 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 service activities and professional activities. Application forms for graduate assistantships may be obtained by writing directly to the chairman of the Department of Biology or the chairman of the Department of Education and Psychology. Applications must be submitted before April 15, while the deadline for applications for education and psychology assistantships is February 1.

The Delta's Award Endowment
Prior to each spring and summer graduation, master's candidates with exceptionally good academic and professional records are selected by the faculties of Biology and Education and Psychology for the Delta's Award. This award, made at graduation from an endowment fund established in 1984, and designated the Delta's Award, consists of (1) a certificate of distinction and (2) a cash amount of one hundred dollars ($100). Normally, only one award may be made per graduation.
Apartments
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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 an 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 shall file completed graduate application forms and two official transcripts of all work taken on the collegiate level with the Admissions Office of the College at least three months prior to the quarter in which graduate study is desired. 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.
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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
Applicants must have the following:
1. A baccalaureate degree from an accredited college and a minimum cumulative grade-point average of 2.75 in the last 30 credits of the degree or in the total undergraduate program;
2. Satisfactory scores on the Graduate Record Examination, both general and subject, as established by the departments and approved by the Graduate Council.

The subject test must be taken in the area of proposed graduate study - biology, education, etc. Students who intend to pursue a counseling specialization, or whose undergraduate major was psychology, may elect to substitute the subject test in psychology for the subject test in education.

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 must include one or more of the following: strong professional recommendations, acceptable postgraduate work at a recognized institution, experience or areas related to the desired graduate specialization, or other criteria established by the departments concerned.

Postgraduate Study
A graduate of an accredited college, not admitted into the master's program, may register as a postgraduate student and may take courses toward certification. A student who registers only as a postgraduate has no assurance that credit earned will later apply toward the 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.

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 projects of study, and following all procedures in their proper sequence. Failure to do so may result in unnecessary delay or interruption of graduate study.
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GENERAL DEGREE REQUIREMENTS

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

Credit older than six calendar years 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.

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 examination if acceptable to 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.

Course Requirements and Scholarship
The completion of a minimum of 45 quarter hours of approved graduate courses with a cumulative grade-point average of at least 3.00 is required. A GPA of 3.00 must be maintained on all course work taken in residence. 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 600 to 698 are open to both undergraduate and graduate students. Usually, not more than six quarter hours of courses numbered 400 or above are included in a program. Courses numbered 300 to 399 may be included in the graduate program at 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.

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

Changes in Registration
Students withdrawing from college or individual courses must file an official drop form with the Records Office. Withdrawal slips must be signed by the adviser and the instructor involved. The final date for dropping a class is indicated in the academic calendar. Students deciding after the withdrawal date to continue in a course will receive a W (indefinite). Students withdrawing from all classes during the quarter will receive Ws.

Second Master's Degree
The second master's degree requires a minimum of 30 additional quarter hours approved by the Graduate Council. All M.A. and M.S. degree programs must include a thesis.
Bulletin
The student's degree candidacy must be based on the graduate bulletin in effect by 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 chair of their department for assistance in selecting courses. An advisor 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 consultation with the advisor. (See Changes in Program below.)

Toward the end of the quarter in which the student is about to complete his/the nine-to-15 quarter hours of approved graduate study (exclusive of deficiencies), application must be made for advancement to degree candidacy. Since a minimum of 10 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
Advancement to master's degree candidacy is the responsibility of the Graduate Council. A student may be advanced to master's degree candidacy by fulfilling the following conditions:
1. Complete nine to 15 quarter hours of approved graduate study with a minimum grade-point average of 3.00.
2. Submit to the chair of the department the completed application form, Degree Candidacy and Program Approval, containing a full program of study for the master's degree with deficiencies, if any, included.

Approval of the program and advancement to master's degree candidacy will be officially acknowledged by a letter from the chair of the Graduate Council. The degree is granted only after successful completion of the approved program of study 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 chair, director of records and chair of the Graduate Council. More than two changes must be approved by the Graduate Council.

THESIS REQUIREMENT
A thesis demonstrating ability to conduct research in a systematic and scholarly manner must be prepared 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.

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 examining 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 chair.
2. The examinations are coordinated by the chair of the department and/or the candidate's advisory committee. Success or failure of the examinations is determined by the examining 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. Written examinations may take considerably longer.
5. Any candidate who fails either written or oral examinations may be granted only one opportunity by the examining 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.

CONFERENCE OF DEGREE
The candidate must file in duplicate the order form for the master's degree and academic regalia with the Office of the Dean of the School of Graduate Studies. Consult the academic calendar for the last day to file the order form 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.
Bulletin
The student's degree candidacy must be based on the Graduate Bulletin in effect by 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 chair of their department for assistance in selecting courses. An advisor 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 consultation with the advisor. (See Changes in Programs below)

Toward the end of the quarter in which the student is about to complete his or her fifteen quarter hours of approved graduate study (exclusive of deficiencies), application must be made for advancement to degree candidacy. Since a minimum of 10 quarter hours should be earned after advancement to candidacy has been granted, any delay in filing this application may result in loss of earned credits.

ADVANCEMENT TO DEGREE CANDIDACY
Advancement to master's degree candidacy is the responsibility of the Graduate Council. A student may be advanced to master's degree candidacy by fulfilling the following conditions:

1. Complete nine to fifteen quarter hours of approved graduate study with a minimum grade-point average of 3.00.
2. Submit to the chair of the department the completed application form, Degree Candidacy and Program Approval, containing a full program of study for the master's degree, with deficiencies, if any, included.

Approval of the program and advancement to master's degree candidacy will be officially acknowledged by a letter from the chair of the Graduate Council. The degree is granted only after successful completion of the approved program of study 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 chair, director of records, and chair of the Graduate Council. More than two changes must be approved by the Graduate Council.

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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.

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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 coursework 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, biochemistry, microbiology, and ecology. An adequate preparation in chemistry (inorganic and organic), physics (general physics and mathematics), trigonometry, and calculus will complete the necessary foundation upon which an individualized graduate program may be built. There is sufficient flexibility to allow a student to pursue 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 prepare 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.
DEPARTMENTS OF INSTRUCTION

BIOLOGICAL SCIENCES

The Department of Biology offers a Master of Science degree in biology. Courses are offered in ecology and botany on the main campus and at the Marine Station near Anacortes, Washington. The program of coursework 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 (integral and organic, physics (general physics) and mathematics (algebra, trigonometry, and calculus) will complete the necessary foundation upon which an individualized graduate program may be built. There is sufficient flexibility to allow a student to prepare 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.
BIOLOGICAL SCIENCES

BIOIL 461 PLANT PHYSIOLOGY
A study of the principles of plant physiology. One laboratory per week. Prerequisites: BIOIL 365, BIOIL 391.

BIOIL 463 ORNITHOLOGY
Principles study of native birds of North America, with emphasis on identification, migration, and geographical distribution, habits, and life histories. Two laboratories per week.

BIOIL 465 GENERAL ENTOMOLOGY
Study of insect morphology, physiology, ecology, and classification. One laboratory per week.

BIOIL 461 PLANT ANATOMY
Study of the microscopic anatomy of plant tissues with emphasis on their origin and development. Emphasizes the vascular tissues. Recommended: BIOIL 166; One laboratory per week.

BIOIL 464 HEMATOLOGY
Study of the hematological system with emphasis on the role of blood in the functioning of the body. Two laboratories per week.

BIOIL 465 SYSTEMATIC BOTANY
Study of the principles of plant classification, together with a systematic survey of a variety of plants, with emphasis on their natural history and ecology. Two laboratories per week. One or two field trips required. College Place campus—4 quarter hours, Marine Station—5 quarter hours.

BIOIL 469 LIMNOLOGY
Study of the factors responsible for the processes and distribution of animals and plants in fresh waters. Field work includes trip to a number of lakes and streams for collection of living specimens as well as habitat analysis. Two laboratories per week.

BIOIL 464 MAMMALOLOGY
Study of the mammalian system with emphasis on the natural history and ecology. Two laboratories per week.

BIOIL 466 GENERAL ECOLOGY
Study of the relationship of plants and animals, both as individuals and assemblages, with their physical and biological environment. Field studies designed to exercise ecological path as one part of the laboratory work. Two laboratories per week. Biometrics, genetics and evolution of one field natural history course recommended.

BIOIL 467 PARASITOLOGY
Study of the morphology, life cycle, and host-parasite relationships of parasitic helminthes, and arthropod protozans. Two laboratories per week. Prerequisites: physiology, 121, 122, 123.

BIOIL 469 VERTEBRATE HISTOLOGY
Study of the microscopic anatomy of vertebrates: cells, tissues, and organs, including reference to their functions. Two laboratories per week.

BIOIL 465 INVERTEBRATE ZOOLOGY
Study of the biology of the invertebrates with emphasis on their ecological morphology and ecology. Two laboratories per week.

BIOIL 465 RESEARCH METHODS V
Methods of setting up and writing a scientific paper. Students present the results of their senior thesis at a seminar and submit a written manuscript of their senior thesis. BIOL 216, BIOL 352, BIOL 355, BIOL 376.

BIOIL 468 PSYCHOLOGY
Reading in, and discussion of, current concepts of the psychological bases of behavior in animals per week. Prerequisites: BIOL 216, PSY 303 or BIOL 314, 320 and PSYC 130 or permission of instructor. Recommended: BIOL 354.
BIOL 465 BACTEROLOGY
5
Principles of morphology and function of bacteria. Laboratory work, including techniques, protocols, and standard methods employed in bacterial studies. Two laboratories per week. Prerequisites: CHIM 321, 322, 323.

BIOL 466 IMMUNOLOGY
4
Study of the immune mechanisms and their role in applied areas. Emphasis on laboratory techniques used to solve immunological problems. One laboratory per week. Prerequisites: BIOL 207 or BIOL 405 and CHIM 321, 322, 323.

BIOL 481 PHILOSOPHY OF ORIGINS AND SPECIATION
3
Comparison of the various theories on the origin and history of life, in search of greater scientific knowledge in biochemistry, paleontology, morphobiology, phylogeny, and other related areas. Five lectures and two recitations. Recommended for senior year.

BIOL 490 TECHNIQUES IN FIELD BIOLOGY
1-6
Study of techniques used in the collection and preservation of biological specimens for research purposes. Emphasis on the recording and preservation of ecological data. Integrated with the study of the field. Topics vary depending on the instructor, credit will be given at the rate of one quarter hour for each week spent working in the field.

BIOL 495 COLLOQUIUM
0
A lecture series designed to expose students to modern research, experience, and demands of the field. Course is normally given by visiting scientists. Six quarters required of all junior, senior and graduate biology majors. Graded S or NC.

BIOL 510 RESEARCH IN BIOLOGY
2-6
A supervised work in a topic of original research carried out under the direction of one of the instructors. Two to four hours per quarter, maximum, eight.

BIOL 511 GENETICS AND SPECIATION
3
A study of the nature and function of the genetic material as it relates to population and species variability and changes. Prerequisite: BIOL 201.

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 one, and maximum of six quarters. Spring quarter normally involves J Research Paper and Progress Report for two-year graduate students. See Biology Department for alternate options.

BIOL 511 BIOSYSTEMATICS
4
A study of the processes of evolution and its relationship to currently used taxonomic methods and rules of classification.

BIOL 510 SYSTEMATIC ENTOMOLOGY
4
A study of the principles of classification of insects. Laboratory work emphasizes recognition of families and subfamilies of insects. Prerequisite: BIOL 405. Two laboratories per week.

BIOL 511 PRINCIPLES OF ECONOMIC ENTOMOLOGY
3
An introduction to 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, biochemical genetics, and systematic biology and radiation biology will be considered. Two laboratories per week. Prerequisites: BIOL 320, 371.
READING COURSES
A minimum of six quarter hours may be selected from Reading Courses.

BIOL 540 READINGS IN BIOLOGY
Analysis of classical and current literature in specific areas of biology. Areas of concentration may include disciplines such as biochemistry, developmental biology, ethology, genetics, immunology, parasitology, physiology, pharmacology, or zoology. Requires reports and conferences with a staff member. A maximum of four quarter hours in any one semester.

BIOLOGY COURSES: Marine Station
BIOL 101, 102, 103 or equivalent is prerequisite for all courses listed below.

BIOL 465 MARINE ECOTOLOGY
Study of intertrophic, interspecific and community relationships determined by marine organisms.

BIOL 462 Ichthyology
Systematic study of fish found in Puget Sound, with a survey of fishes of other seas.

BIOL 463 MARINE BOTANY
Systematic study of plants found in Puget Sound, with a survey of marine plants from other seas.

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

BIOL 468 COMPARATIVE PHYSIOLOGY
Comparative study of the physiology and life processes of animals with emphasis on invertebrates. Prerequisite: BIOL 102.

BIOL 470 MARINE BIOPHYSICS
Introduction to the physical aspects of living organisms studied by the experimental and conceptual methods of physics with applications to marine life.

BIOL 475 MARINE INVERTEBRATES
A study of the biology of selected groups of marine invertebrates.

BIOL 508 PHYSIOLOGY OF THE ALGAE
A comparative study of the physiology of representatives of the major algal groups. Collection and growth of pure cultures of single-celled and multicellular members of the groups, nutritional factors, light requirements, reproduction and growth will be emphasized.

BIOL 514 SYMBIOSIS
A study of sharply defined associations between organisms. Selected examples of the various types of symbiosis, bacterial, fungal and coenobial, are used to illustrate varying degree of relationship. Prerequisites: BIOL 204. Course includes field trips to study group of invertebrates or plants or coenobial algae, Chemistry courses through organic are highly recommended.

BIOL 586 BEHAVIOR OF MARINE ORGANISMS
A study of inter- and intra-specific behaviors of marine organisms that have behavioral variants to the physical environment. The course involves laboratory experiments, field observations, and a research project. Prerequisites: BIOL 304, BIOL 450 or PSYC 130 and background in organismal biology and permission of the instructor.

Qualifies as a marine-oriented course.
READING COURSES
A maximum of six quarter hours may be selected from Reading Courses.

BIOL 540 readings IN BIOLOGY
Analysis of classical and current literature in specific areas of biology. Areas of concentration may include disciplines such as biochemistry, developmental biology, ecology, ethology, genetics, nutrition, physiology, or zoology. Requires reports and conferences with a faculty mentor. A maximum of four quarter hours in any one area.

BIOLOGY COURSES: Marine Station
BIOL 101, 102, 103 or equivalent is prerequisite for all courses listed below.

BIOL 450 MARINE ECOLOGY
Study of inter-specific, intra-specific, and community relationships determined by marine organisms.

BIOL 462 Ichthyology
Systematic study of fishes found in Puget Sound, with a survey of the fishes of other areas.

BIOL 463 Marine Botany
Systematic study of plants found in Puget Sound, with a survey of marine plants from other areas.

BIOL 467 INTRODUCTION TO OCEANOGRAPHY
A physical, chemical, and geological study of the ocean and marine life, emphasizing the natural relationship between the oceanic biota and its environment.

BIOL 468 Comparative Physiology
Comparative study of the physiology and life processes of animals with emphasis on invertebrates. Prerequisite: BIOL 101.

BIOL 470 Marine Biophysics
Introduction to the physical aspects of living organisms studied by the experimental and conceptual methods of physics with applications to marine life.

BIOL 475 Marine Invertebrates
A study of the biology of selected groups of marine invertebrates.

BIOL 505 Physiology of the Algae
A comprehensive study of the physiology of representative species of the major algal groups. Collection and growth of green, brown, and red algae and related metabolic processes, nutritional factors, light requirements, reproduction and growth will be emphasized.

BIOL 514 SYMBIOSIS
A study of the development of mutualism and symbiosis in plants and animals, with emphasis on the evolutionary development of mutualistic relationships. Prerequisite: BIOL 470 or consent of instructor. Credit allowed only if taken through organic. Corequisite is highly recommended.

BIOL 516 Behavior of Marine Organisms
A study of inter-specific and intra-specific behavior of marine invertebrates and how behavior is related to the physical environment. The course includes laboratory experiments, field observation and a research project. Prerequisites: BIOL 450 or PSYC 130 and background in organismal biology and permission of instructor.

*Qualifies as a marine-oriented course.
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 advancement through liberal course selection in the areas listed below under Areas of Specialization.

The Graduate Programs of the Department of Education and Psychology support the general objectives of the School of Graduate Studies by:
1. Teaching research skills and techniques;
2. Focusing on research in emerging policies, practice, and professional life;
3. Addressing contemporary issues, needs, and trends in Education and Psychology; and
4. Providing supervised practicums and field experiences in areas of specialization.

In addition to these objectives, the Graduate Programs seek to assist the student in the development of a philosophy of Christian service and education supportive of higher professional development.

MASTER OF EDUCATION (M.Ed.)

The master of education degree, a nonthesis program, provides for a variety of specialized options designed to enhance professional competence.

By careful planning, a qualified candidate may coordinate many of the requirements for the degree with preparation for state certification. Since completion of minimum degree requirements does not necessarily satisfy requirements for certification, students pursuing a certificate must consult with the credential advisor early in their program.

General Prerequisites Applicable to all M.Ed. Programs

Deficiencies may be removed after admission to graduate study, but the credit earned will not apply to the minimum degree requirements. Candidates for the M.Ed. degree must have the following:

1. Professional education courses: 30 qtr. hrs.

   Courses from any department will satisfy the intent of the term "professional education" if the course is on instructional-learning principles, pupil characteristics, teaching methodology, curriculum materials or the role of various school personnel.

2. Verified, satisfactory educational work experience: 9 months full-time minimum.

   The work experience must fall within the range of professional or preprofessional activities provided by schools or other educational service agencies. Activities such as classroom teaching, school administration, library work, counseling or work as a domitory dean will be considered if pertinent to the candidate's chosen area of specialization. A minimum of 30 quarter hours for the master's degree may be earned prior to the work 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.

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

Requirements Applicable to all M.Ed. Programs

The M.Ed. program requires a minimum of 45 quarter hours, 30 of which must be in courses 400 numbered and above, and must include basic as well as professional education courses as indicated below. Unless specifically approved by the Graduate Council, courses numbered below 350 do not carry graduate credit. All courses included in the degree program must be approved by an assigned advisor in the Education and Psychology department.

Basic courses:

EDUC 501 Methods of Research (before advancement to candidacy) 10
EDUC 512 Social Foundations of Education (before advancement to candidacy) 3
EDUC 503 Graduate Seminar 3
PSY 521 Psychology of Learning 1
PSY 525 Education in the Twentieth Century 3

Professional Education Courses (see definition on page 32) 11
Required and Approved Electives: 24

Total 45

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 except that of coursework. Preparation for the certificate will normally be according to Washington state requirements for either the initial or continuing level. Candidates from out-of-state who produce evidence of qualifying in the state, province, or country of their intended educational employment if a specific certification program exists there. 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 fifty-hour experience applicable to various state certificates.
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 listed below under Areas of Specialization.

The Graduate Programs of the Department of Education and Psychology support the general objectives of the School of Graduate Studies by:

1. Teaching research skills and techniques;
2. Focusing on research in emerging policies, practice, and professional life;
3. Addressing contemporary issues, needs, and trends in Education and Psychology;
4. Providing supervised practicum and field experiences in areas of specialization.

In addition to these objectives, the Graduate Programs seek to assist the student in the development of a philosophy of Christian service and education supportive of higher professional development.

MASTER OF EDUCATION (M.Ed.)

The master of education degree, a nonthesis program, provides for a variety of specialized options designed to enhance professional competence. By careful planning, a qualified candidate may coordinate many of the requirements for the degree with preparation for state certification. Since completion of minimum degree requirements does not necessarily satisfy requirements for certification, students pursuing a certificate must consult with the credential advisor early in their program.

General Prerequisites Applicable to all M.Ed. Programs

Deficiencies may be removed after admission to graduate study, but the credit earned will not apply to the minimum degree requirements. Candidates for the M.Ed. degree must have the following:

1. Professional education courses: 30 qtr. hrs.
   Courses from any department will satisfy the intent of the term "professional education" if the course is on instructional-learning principles, adult characteristics, teaching methodology, curriculum materials, or the role of various school personnel.

2. Verified, satisfactory educational work experience: 9 months full-time minimum.

The work experience must fall within the range of professional or paraprofessional activities provided by schools or other educational service agencies. Activities such as classroom teaching, school administration, library work, counseling, or work as a domestician shall be considered if pertinent to the candidate's chosen area of specialization. A maximum of 30 quarter hours for the master's degree may be earned prior to the work experience, but a minimum of 15 quarter hours must be earned thereafter.

EDUCATION AND PSYCHOLOGY

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.

Requirements Applicable to all M.Ed. Programs

The M.Ed. program comprises a minimum of 45 quarter hours, 30 of which must be in courses 400 numbered and above, and must include basic as well as professional education courses as indicated below. Unless specifically approved by the Graduate Council, courses numbered below 350 do not carry graduate credit. All courses included in the degree program must be approved by an assigned advisor in the Education and Psychology department.

Basic courses:

EDUC 501 Method of Research (before advancement to candidacy) 3
EDUC 512 Philosophy of Education (before advancement to candidacy) 3
EDUC 550 Graduate Seminar 1
PSYC 521 Psychology of Learning 3
EDUC 525 Education in the Twentieth Century 10

Professional Education Courses: see definition on page 32

Satisfaction and Approved Electives: 24

Total 45

Minimum

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 except that of coursework. Preparation for the certificate will normally be according to Washington state requirements for either the initial or continuing level. Candidates from out-of-state must produce evidence of qualifying in the state, province or country of their intended educational employment if a specific certification program exists there. 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 five-year experience applicable to various state certificates.
Specializations may be planned in the following approved areas:

- School Administration
- Counseling and Guidance
- Special Education Counseling
- Special Education
- Elementary Instruction
- Junior High Instruction

A candidate wishing to pursue a specialization in an area other than any listed above may submit for consideration by the department and the Graduate Council an in-

divisional self-planned proposal requiring at least 24 quarter hours in the chosen specialization area. Additional supporting credit is needed to complete the degree will be selected in harmony with all other specified degree requirements. It is essent-

ial 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.

**Specialization Requirements:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 504 Elementary School Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>or EDUC 508 Secondary School Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>or EDUC 516 School Finance</td>
<td>3</td>
</tr>
<tr>
<td>or EDUC 544 Administration of the Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>or EDUC 551 Administration of the Secondary School</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 539 Supervision</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 550 School Law</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 556 Curriculum Planning</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 444 Social Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 21

**Electives in Administration:** 3

**Other Approved Electives:** 11

**Total:** 45

Note: EDUC 560 Administrative Practicum does not apply toward the minimum of 45 quarter hours.
Specializations may be planned in the following approved areas:

School Administration
Counseling and Guidance
Special Education Counseling
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 and the Graduate Council an individual self-planned proposal meeting 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 advisor in the Department of Education and Psychology.

School Administration

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

Specialization Requirements:
Basic Courses (see page 33):
Specallization Courses:
(As part to school administration, supervision, curriculum and counseling and must include the following unless they were a part of the undergraduate sequence)

EDUC 504 Elementary School Curriculum 3
or
EDUC 508 Secondary School Curriculum 3
EDUC 516 School Finance 3
or
EDUC 544 Administration of the Elementary School 3
or
EDUC 551 Administration of the Secondary School 3
EDUC 519 Supervision 3
EDUC 550 School Law 3
EDUC 556 Curriculum Planning 3
PSYC 444 Social Psychology 3

Electives in Administration:
3

Other Approved Electives:

Total 45

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

Counseling and Guidance (50 quarter hours minimum)

Specialization Prerequisites:
EDUC 210 Foundations of Education
PSYC 235 Psychology of Childhood and Adolescence
PSYC 220 Educational Psychology
PSYC 350 Elementary Statistics
PSYC 430 Psychological Testing

Specialization Requirements:
Basic Courses (see page 33):
Core Courses:

EDUC 426 Principles and Procedures of Guidance 3
PSYC 410 Behavior Modification 3
PSYC 431 Psychology of Exceptional Individuals 3
PSYC 489 Vocational Development Theory 3
PSYC 515 Counseling Theories and Techniques 3
PSYC 518 Group Counseling 7

Emphasis — Options I and II

Option I: Special Education Emphasis
PSYC 533 Assessment and Instruction of Exceptional Students 4
EDUC 537 Instruction of Exceptional Students 4
PSYC 535 Counseling Exceptional Students and Parents 3
PSYC 563 Field Experience 3
PSYC 565 Practicum 6

Electives 3

Option II: School Counseling Emphasis
PSYC 534 Assessment of the Individual 2
PSYC 563 Field Experience 3
PSYC 565 Practicum 6

Electives 12

Total 50

The degree in counseling requires completion of the Educational Staff Associates initial 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.

Specialization Requirements:
- Basic Courses (see page 33b): 32
- Professional Education Courses (see definitions on page 32): 15
- Academic Content Courses (Must be from departments other than Education and Psychology and must be in subject-matter areas relevant to the content of the elementary curriculum): 9

Total: 45

Junior High Instruction

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

Specialization Requirements:
- Basic Courses (see page 33b): 10
- Professional Education Courses (see definition on page 32): 13
- Academic Content Courses:
  - Academic content courses must be from two departments other than education and psychology and must be in the same general areas as the two prerequisite content areas specified above.

Approved Electives: 9

Total: 45

Special Education

This course of study is designed to meet the requirements for a Washington State supporting endorsement in special education.

Specialization Prerequisites: Washington State Certification or an equivalent concentration of professional education courses.

Specialization Requirements:
- Basic Courses (see page 33b): 13
- Core Courses:
  - PSYC 451: Psychology of Exceptional Individuals 3
  - SPEED 530: Issues and Trends in Special Education 3
  - SPEED 533: Assessment of Exceptional Students 4
  - SPEED 537: Instruction of Exceptional Students 4
  - SPEED 538: Counseling Exceptional Students and Their Parents 3

Total: 45

Secondary Instruction

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

Specialization Requirements:
- Basic Courses (see page 33b): 10
- Professional Education Courses (see definition on page 32): 11
- Academic Content Courses:
  - Academic content courses must be chosen in consultation with advisor.
  - (a) In specializations where only one content area is emphasized, e.g., English, up to six of the 24 quarter hours may be selected from no more than two supporting departments other than the major area of emphasis.
  - (b) In interdisciplinary areas, indicated below by the asterisk (*), courses must be distributed among areas listed in parentheses according to the needs and interests of the candidates.

Total: 45

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)
Elementary Instruction

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

Specialization Requirements:
- Basic Courses (see page 33b): 10
- Professional Education Courses (see definition on page 32): 21
- Academic Content Courses:
  - (Must be from departments other than Education and Psychology and must be in subject-matter areas relevant to the content of the elementary curriculum): 15
- Approved Electives: 9

Total minimum 45

Junior High Instruction

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

Specialization Requirements:
- Basic Courses (see page 33b): 10
- Professional Education Courses (see definition on page 32): 11
- Academic Content Courses:
  - Academic content courses must be drawn from two departments other than education and psychology and must be in the same general areas as the two prerequisite content areas specified above: 13
- Approved Electives: 9

Total minimum 45

Special Education

This course of study is designed to meet the requirements for a Washington State supporting endorsement in special education.

Specialization Prerequisites:
- Washington State Certification or an equivalent concentration of professional education courses.

Specialization Requirements:
- Basic Courses (see page 33b): 10
- Core Courses:
  - PSYC 431 Psychology of Exceptional Individuals: 3
  - SPED 530 Issues and Trends in Special Education: 4
  - SPED 533 Assessment of Exceptional Students: 4
  - SPED 577 Instruction of Exceptional Students: 4
  - SPED 538 Counseling Exceptional Students and Their Parents: 3

Total 25

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)
MASTER OF ARTS — IN EDUCATION (M.A.)

In the Master’s program, candidates 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 research 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.

By careful planning, a qualified candidate may coordinate many of the requirements in preparation for state or demonstration certification. Since completion of minimum degree requirements does not necessarily satisfy certification requirements, students pursuing a certificate must consult with the credential advisor early in their program.

Prerequisites Applicable to all M.A. Programs

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.

Deficiencies may be removed after admission to graduate study, but these must be removed 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.

Requirements Applicable to all M.A. Programs

Unless otherwise indicated, a M.A. program comprises a minimum of 45 quarter hours of credit. A minimum of 24 quarter hours for the M.A. degree must be from courses numbered 500 or above.

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

Basic Courses and Thesis:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 520</td>
<td>Graduate Seminar</td>
<td>1</td>
</tr>
<tr>
<td>EDUC 522</td>
<td>Philosophy of Education (before advancement to candidacy)</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 561</td>
<td>Methods of Research (before advancement to candidacy)</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 599</td>
<td>Thesis</td>
<td>15</td>
</tr>
</tbody>
</table>

Area of Specialization:

(Additional credits may be necessary if certification is also being sought.)

Approved Electives: 38

Total: 45

Curriculum and Instruction

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

Specialization Requirements:

Basic Courses and Thesis (see page 38): 15

Administration and Supervision Courses: 18

Approved Electives: 12

Total: 45

Curriculum and Instruction

Specialization Prerequisites: 30 quarter hours professional education courses and work experience as defined for all M.Ed. programs (see pages 32 and 33).

Specialization Requirements:

Basic Courses and Thesis (see page 38): 15

Professional Education Courses (see definition on page 32): 68

Supporting Academic Courses: 12

These courses must be from departments other than education and psychology and must be in subject-matter clearly related to the area of emphasis chosen to the area specialization. On the junior or higher level, supporting courses must be from not more than two content areas.

Total: 45

Educational Foundations

Specialization Prerequisites: A major in psychology or sociological, or an equivalent concentration of 28 quarter hours in one of these areas. Six quarter hours in philosophy and three quarter hours in educational psychology. These quarter hours may be in in-service part of, and not necessarily additional to, the minor prerequisite stated above.

Specialization Requirements:

Basic Courses and Thesis (see page 38): 15

Foundations Courses: 18

These must be chosen from not more than two of the following areas: historical, philosophical, sociological and psychological foundations of education. Candidates specializing in psychological foundations should choose courses having to do with learning, development, measurement and statistics.

Approved Electives: 12

Total: 45

Minimum: 45
MASTER OF ARTS — IN EDUCATION (M.A.)

In the master’s program, candidates 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 research 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. By careful planning, a qualified candidate may coordinate many of the requirements with preparation for state or departmental certification. Since completion of minimum degree requirements does not necessarily satisfy certification requirements, students pursuing a certificate must consult with the credential advisor early in their program.

Prerequisites Applicable to all M.A. Programs

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.

Deficiencies may be removed after admission to graduate study, but those which remain thereafter 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.

Requirements Applicable to all M.A. Programs

Unless otherwise indicated, a M.A. program comprises a minimum of 45 quarter hours of credit. A minimum of 24 quarter hours for the M.A. degree must be from courses numbered 500 or above.

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

Basic Courses and Thesis

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 501</td>
<td>Graduate Seminar</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 522</td>
<td>Philosophy of Education (before advancement to candidacy)</td>
<td>2</td>
</tr>
<tr>
<td>EDUC 561</td>
<td>Methods of Research (before advancement to candidacy)</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 509</td>
<td>Thesis</td>
<td>15</td>
</tr>
</tbody>
</table>

Total 20 credits

Area of Specialization:

Additional credits may be necessary if certification is also being sought.

Approved Electives

Total 45 credits

45 total minimum

Educatonal Foundations

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

Specialization Requirements:

Basic Courses and Thesis (see page 38):

Total 15 credits

Foundations Courses

These must be chosen from not more than two of the following areas: histoncal, philosophical, sociological and psychological foundations of education. Candidates specializing in psychological foundations should choose courses having to do with learning, development, measurement and statistics.

Total 42 credits

45 total minimum
Counseling and Guidance

Specialization Prerequisite: A minor in psychology or an equivalent 28 quarter hours including elementary statistics and a course in child and adolescent development. Fifteen quarter hours in professional education, as defined on page 32 of this bulletin.

Specialization Requirements:
Basic Courses and Theses (see page 39) 15
Counseling, Psychology and Guidance Courses 18
These courses must include counseling and measurement theories and techniques and assessment skills.
Practices in Counseling, PSYC 565 6
Approved Electives: 11
Total: 50 minimum

Religious Education

Specialization Prerequisite: A major or minor in Theology or Religion, or 30 approved hours of religion courses with a minimum of nine in the upper division level.

Specialization Requirements:
Basic Courses and Theses (see page 38): 15
Other Education courses: 3
Religious Studies: 20
Approved Electives: 5
Total: 43 minimum

These hours must include at least two classes in the area of Biblical studies, three in the area of theology and ethics and one in the area of religious education methods.

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 requiring at least 15 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 advisor 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 initial and continuing 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.

The Continuing Certificate

Requirements:
1. Teaching Experience: The applicant for a Continuing Certificate must have completed three years of educational service at least two of which must have been as a teacher in grades K-12 while holding a valid state teaching certificate.
2. A minimum of 45 quarter credits of course work must be completed after the bachelor's degree, distributed as follows:
   a. Credits as required in each of the following five generic standard areas:
      i. Staff development and supervision.
      ii. Professional development and scholarship.
      iii. Research and evaluation.
      iv. Referral agencies and resource personnel.
      v. Knowledge of alternate grade level.
   b. A minimum of 15 quarter hours in an area of specialization. (These hours may contribute to a second endorsement as required under 3 c below.)
   c. Elective credits including a minimum of 12 hours in academic courses. Credits may be taken in any field when approved by the Department of Education advisor. The academic course credits required in this section may be a part of the specialization above.
3. Other Requirements:
   a. Twenty-four quarter credits must be earned after at least one year of teaching, which may include substitute teaching. (Candidates who hold a master's degree are exempt from this requirement.)
   b. Beginning August 31, 1988, all Continuing Certificate candidates must have at least two endorsements.
   c. A minimum of 23 hours of course work must be taken at Walla Walla College.
   d. Grades lower than C+ are not acceptable in courses required for the Continuing Certificate.
   e. Course work must be upper division or graduate level and taken through a regional accredited four-year institution. Exceptions regarding course level for individuals working for and securing a second area of endorsement may be made if approved by the Education Department Advisor.
   f. All academic course credits must be earned through a state approved four-year teacher education college or university.
   g. A maximum of five quarter credits of correspondence study may be approved.
   h. Education courses taught in Washington by out-of-state institutions or agencies are not acceptable for the Continuing Certificate unless approved by the State of Washington Certification Office.
   i. Each person shall be required to complete 150 clock hours of continuing education or 15 quarter hours of college credit every five years to keep the certificate valid. (One quarter hour equals ten clock hours.)
   j. Recipients of a Continuing Certificate shall be restricted to teaching in the areas in which endorsement has been received.

GRADUATE COURSES — Education

EDUC 500 TOPICS 3-5
EDUC 510 GRADUATE SEMINAR 1-3
Three areas in which faculty and students explore significant issues through the examination of research and appropriate literature in the area of education. One quarter hour requirement, three.
Counseling and Guidance

Specialization Prerequisite: A minor in psychology or an equivalent 28 quarter hours including elementary statistics and a course in child and adolescent development. Fifteen quarter hours in professional education, as defined on page 32 of this bulletin.

Specialization Requirements:
- Basic Courses and Theses (see page 39): 15
- Counseling, Psychology and Guidance Courses: 18
  These courses must include counseling and measurement theories and techniques and assessment skills.
- Practicum in Counseling, PSYC 565: 6
- Approved Electives: 11
- Total Minimum: 50

Religious Education

Specialization Prerequisite: A major or minor in Theology or Religion, or 30 approved hours of religion courses with a minimum of nine at the upper division level.

Specialization Requirements:
- Basic Courses and Theses (see page 38): 15
- Other Education courses: 3
- Religious Studies: 20
- Approved Electives: 5
- Total Minimum: 45

These hours must include at least two classes in the area of Biblical studies, three in the area of theology and ethics and one in the area of religious education methods.

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一定 at least 15 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 advisor 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 initial and continuing 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.

The Continuing Certificate

Requirements:
1. Teaching Experience: The applicant for a Continuing Certificate must have completed three years of educational service at least two of which must have been as a teacher in grades K-12 while holding a valid state teaching certificate.
2. A minimum of 45 quarter credits of course work must be completed after the bachelor’s degree, distributed as follows:
   a. Credits as required in each of the following five generic standard areas:
      i. Staff development and supervision.
      ii. Professional development and scholarship.
      iii. Research and evaluation.
      iv. Referral agencies and resource personnel.
      v. Knowledge of alternate guide level.
   b. A minimum of 15 quarter hours in an area of specialization. (These hours may contribute to a second endorsement as required under 3 c below.)
   c. Elective credits including a minimum of 12 hours in academic courses. Credits may be taken in any field when approved by the Department of Education Advisor. The academic course credits required in this section may be a part of the specialization above.
3. Other Requirements:
   a. Twenty-one quarter credits must be earned after at least one year of teaching, which may include substitute teaching. (Candidates who hold a master’s degree are exempt from this requirement.)
   b. Beginning August 31, 1988, all Continuing Certificate candidates must have at least two endorsements.
   c. A minimum of 22 hours of course work must be taken at Walla Walla College.
   d. Grades lower than C are not acceptable in courses required for the Continuing Certificate.
   e. Course work must be upper division or graduate level and taken through a regional accredited four-year institution. Exceptions regarding course level for individuals working for and securing a second area of endorsement may be made if approved by the Education Department Advisor.
   f. All educational course credits must be earned through a state approved four-year teacher education college or university.
   g. A minimum of five quarter credits of correspondence study may be approved.
   h. Education courses taught in Washington by out-of-state institutions or agencies are not acceptable for the Continuing Certificate unless approved by the State of Washington Certification Office.
   i. Each person shall be required to complete 150 clock hours of continuing education or 15 quarter hours of college credit every five years to keep the certificate valid. (One quarter hour equals ten clock hours.)
   j. Recipients of a Continuing Certificate shall be restricted to teaching in the areas in which endorsement has been received.

GRADUATE COURSES — Education

EDUC 500 TOPICS
1-3
EDUC 510 GRADUATE SEMINAR
1-3

These are courses in which faculty and students explore significant issues through the comparative analysis of relevant literature and subject-specific content in the area of education. One quarter hour is equivalent to three.

EDUCATION AND PSYCHOLOGY

EDUCATION AND PSYCHOLOGY

EDUCATION AND PSYCHOLOGY

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

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

EDUC 521 PHILOSOPHY OF EDUCATION
A study of the basic philosophies and development of educational thinking resulting in the formulation of aims and objectives of education for today's schools.

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

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

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

EDUC 527 SCHOOL PLANNING AND CONSTRUCTION
A survey of how to plan and build schools, including the involvement of the lay citizen. Solution of site, roads to design, function of buildings and plants, costs and obligations will be studied.

EDUC 535 CORRECTIVE READING
Analysis, correction, and prevention of reading problems. Study of remedial work in basic skills and reading instruction. Supervised practical work in schools.

EDUC 539 SUPERVISION
The general supervision in the administration of teaching programs. (Course conducted with the cooperation of the Rochester City Schools).

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

EDUC 550 SCHOOL LAW
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
Problems and trends in the organization and administration of secondary schools.

EDUC 556 CURRICULUM PLANNING
The relation of curricular methods to institutional outcomes in terms of personal and social values. A brief review of curriculum: investigation and their significance in the selection and evaluation of school materials and activities. Course practices in curriculum revision.

EDUC 558 SCHOOL ACTIVITIES
Designed to acquaint the student with a range of school activities programs to define the purpose of each activity and to provide help with the valid basis for evaluating activities or proposed activities, and to provide opportunity for intensive study of one activity.

EDUC 560 ADMINISTRATIVE PRACTICUM
Directed laboratory experience for persons interested in administrative leadership. The course involves practical experience in the administration of a school system with the supervision of the department chairman.

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

EDUC 562 COMPARATIVE EDUCATION
A comparison of systems and philosophies of education in various parts of the world, emphasis in the role of cultural aspects.

EDUC 573 READINGS IN EDUCATION
A study of recent trends in educational thinking, instructor will select topics for independent study. Required readings in each area.

EDUC 590 PROFESSIONAL PROJECT
A study of educational research methods and research, formal report required. Permits a student to utilize the facilities of the department.

EDUC 590 THESIS
A study of current literature and legislation pertaining to special education and models for the delivery of these services.

EDUC 593 ASSESSMENT OF EXCEPTIONAL STUDENTS
Examination and administration of assessment measures for exceptional students. Prerequisite: EDUC 431.

EDUC 597 INSTRUCTION OF EXCEPTIONAL STUDENTS
Development and implementation of individualized instructional programs.

EDUC 598 COUNSELING EXCEPTIONAL STUDENTS AND THEIR PARENTS
Counseling and practice of counseling techniques with parents and students regarding academic, behavioral, and vocational concerns.

EDUC 599 FIELD WORK AND TEACHING IN SPECIAL EDUCATION
An introduction to sampling, reliability, and statistical inference applied to research within the hypothesis testing. Includes simple analysis techniques and selected distribution-free tests of significance. Prerequisite: PSYC 301 or equivalent.

PSYC 501 STATISTICS IN RESEARCH
An introduction to sampling, reliability, and statistical inference applied to research within the hypothesis testing. Includes simple analysis techniques and selected distribution-free tests of significance. Prerequisite: PSYC 301 or equivalent.

PSYC 502 COUNSELING AND TECHNIQUES
A study of the theories and techniques of counseling. Professional relationship and ethics are considered.

PSYC 509 GROUP COUNSELING
Theory and techniques of counseling in group situations. Prerequisite: PSYC 515.

PSYC 510 PSYCHOLOGY OF LEARNING
The physiological and psychological bases for functional learning and the experimental evidence supporting psychological hypotheses is reviewed.

PSYC 512 INDIVIDUAL TESTING I
Supervised experience in the administration, interpretation and writing of psychological reports. Related intelligence instruments will be reviewed. Major emphasis, however, will center on Binet and Stanford-Binet intelligence Scales. Prerequisite: PSYC 402 and permission of the instructor.

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

PSYC 535 FIELD EXPERIENCE
Designed to provide a broad spectrum of experiences in actual field settings under supervised direction. Permission of the instructor required.

PSYC 536 PRACTICUM IN COUNSELING
Field experience in the counseling function. Prerequisites: PSYC 515; PSYC 534 and permission of the instructor.

GRADUATE COURSES — Religion

APPROVAL OF REL 500, Advanced Issues in Bioethics, 3 hours as a topics course for the spring and summer of 1987. Description: An advanced study of moral issues in human biology and medicine from the perspective of Christian ethics. Discusses topics such as eugenics, abortion, and human experimentation. Prerequisite: One course in ethics or permission of instructor.
EDUC 501 ELEMENTARY SCHOOL CURRICULUM
A study of the elementary school curriculum, including objectives, essentials of a good program, varying curriculum patterns and appraisal of current practices.

EDUC 502 SECONDARY SCHOOL CURRICULUM
Overview of the secondary school curriculum, with emphasis on the various subject fields, organization of the school for curriculum development, educational objectives, the competence of study, evaluation of the secondary school curriculum.

EDUC 522 PHILOSOPHY OF EDUCATION
A study of the basic philosophies and development of educational thinking culminating in the formulation of a new and objective of education for today's schools.

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

EDUC 526 SCHOOL FINANCE
A course designed for administrators, emphasizing origin and development of school funds.

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

EDUC 535 CORRECTIVE READING
Analysis, correction and advancement of reading difficulties, study aids, supplemented with reference to group and informal testing. Supervised practices with pupils having reading disabilities in reading.

EDUC 539 SUPERVISION
A course designed to familiarize the student with the field of supervision in the classroom, including evaluation of teaching, programs, and pupil progress.

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

EDUC 550 SCHOOL LAW
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
Problems and practices in the organization and administration of secondary schools.

EDUC 556 CURRICULUM PLANNING
The relation of curriculum development to educational outcomes in terms of personal and social values. A brief review of curriculum, investigating and its significance in the selection and evaluation of school materials and activities. Current practices in curriculum revision.

EDUC 558 SCHOOL ACTIVITIES
Designed to acquaint the student with the range of the school activities program to define the purpose of each activity and to provide formal experience in developing and presenting programs.

EDUC 560 ADMINISTRATIVE PRACTICUM
Preliminary laboratory experience for students preparing for administrative positions. The course provides a practical experience in the selection and evaluation of school personnel and in the supervision of instructional programs.

EDUC 561 METHODS OF RESEARCH
Preliminary study of the techniques of research, including the selection and evaluation of research projects and techniques in the analysis of research data.

EDUC 562 COMPARATIVE EDUCATION
A comparison of systems and philosophies of education in various parts of the world, emphasis in the role of cultural change.

EDUC 575 READINGS IN EDUCATION
A survey of various aspects of education, both current and historical, with emphasis on the major themes of educational thought and practice.

EDUC 580 PROFESSIONAL PROJECT
A selected area of educational study to be pursued under the direction of a faculty member. The project will engage the student in an analysis of current issues, and the project will be evaluated by the faculty member.

EDUC 585 SECONDARY SCHOOL CURRICULUM
An advanced course in the study of the secondary school curriculum, focusing on the development of educational programs and the implementation of educational policies.

EDUC 590 THESIS
A study of current literature and legislation pertaining to special education and models for the delivery of these services.

EDUC 591 ASSESSMENT OF EXCEPTIONAL STUDENTS
Examination and administration of assessment measures for exceptional students. Prerequisite: EDUC 451.

EDUC 593 INSTRUCTION OF EXCEPTIONAL STUDENTS
Development and implementation of individualized instructional programs.

EDUC 595 COUNSELING EXCEPTIONAL STUDENTS AND THEIR PARENTS
Counseling techniques and practices in counseling with parents and students regarding academic, behavioral and vocational concerns.

SPED 597 FIELD WORK AND TEACHING IN SPECIAL EDUCATION

GRADUATE COURSES — Psychology/Counseling

PSY 501 STATISTICS IN RESEARCH
An introduction to statistical theory, probability and statistical inference as applied to research publics. Hypothesis testing. Includes single- and multiple-replacement techniques and analysis of variance.

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

PSY 516 GROUP COUNSELING
Therapeutic techniques of counseling in group situations. Prerequisite: PSY 515.

PSY 521 PSYCHOLOGY OF LEARNING
The physiological and psychological bases for functional learning; and the experimental evidence supporting psychological hypotheses is reviewed.

PSY 522 INDIVIDUAL TESTING — Intelligence
Tested experience in the administration, interpretation and writing of psychological reports. Tests intelligence instruments will be reviewed. Major emphasis, however, will center on Binet and Stanford-Binet Intelligence Scales. Prerequisite: PSYC 451 and permission of the instructor.

PSY 534 ASSESSMENT OF THE INDIVIDUAL
Methods applicable to comprehensive assessment for describing behavior. Experience in the collection and analysis of data will be provided. Prerequisite: PSYC 512.

PSY 535 FIELD EXPERIENCE
Directed to provide a broad spectrum of experience in actual field settings under supervised direction. Permission of the instructor required.

PSY 565 PRACTICUM IN COUNSELING
Practical experience in the counseling interview. Prerequisites: PSYC 515; PSYC 534 and permission of the instructor.

GRADUATE COURSES — Religion

APPROVAL OF REL 500, Advanced Issues in Bioethics, 3 hours as a topics course for the spring and summer of 1987. Description: An advanced study of moral issues in human biology and medicine from the perspective of Christian ethics. Topics include abortion, human experimentation, and human rights. Prerequisite: One course in ethics or permission of instructor.
SUPPORTING COURSES

RELIES THE OLD TESTAMENT IN SOCIAL AND CULTURAL PERSPECTIVES
Study of some important aspects of the Old Testament in its social and cultural context. Includes an examination of how modern scholarship has affected the study of the Old Testament.
RELIES STUDIES IN ADVENTIST HISTORY
Study of selected aspects of Adventist history and theology. Key aspects are as follows: Theological and doctrinal development, the history of Adventist institutions, and the theory and practice of missions and evangelism.
RELIES READINGS IN SPIRITUAL CLASSICS
A study of selected works for their contribution to the understanding of Christian life and experience. Among the authors are Augustine, Thomas à Aquinas, John of the Cross, John Wesley, and George Fox.
RELIES PRACTICUM IN RELIGIOUS EDUCATION
Supervised practicum in religious education. Will take place in a local church or similar setting. Setting! Permission of School of Theology required.
RELIES FOUNDATIONS OF RELIGIOUS EDUCATION
A survey of the scriptural, historical, philosophical and psychological bases of religious education.
RELIES SELECTED THEMES IN THE HISTORY OF CHRISTIAN ETHICS
Themes will include war and violence, sexual ethics, economics, and the role of Christians in secular government.
RELIES STUDIES IN CHRISTIAN SYSTEMATIC THEOLOGY
Examination of selected issues, such as monotheism, Christology, creation, eschatology, Sabbath, etc., with emphasis on implications for the practice of the church.

SUPPORTING COURSES — Education

EDUC 361 ELEMENTARY CURRICULUM AND INSTRUCTION: LANGUAGE ARTS
Study of the development of language and communication skills. Theoretical, practical, and critical thinking skills are emphasized. Attention is given to the use of available educational and instructional resources. Instructors in elementary classrooms will be required. Prerequisite: Acceptance into Phase II.
EDUC 362 ELEMENTARY CURRICULUM AND INSTRUCTION: READING
Study of current theories relating to the nature of reading and effective instructional procedures and resources. Activities in the elementary school will include administration of informal reading inventories. Prerequisite: Acceptance into Phase II.
EDUC 375 ELEMENTARY CURRICULUM AND INSTRUCTION: MATHematics
Survey of the content, skills, and strategies used in teaching mathematics in the elementary school, including specific strategies for CaT and general strategies for research-based instruction. Prerequisite: Acceptance into Phase II; MTH 105 or 111.
LIBR 374 LIBRARY MATERIALS FOR CHILDREN
See the Library Science section of the undergraduate bulletin.
ENGL 374 LITERATURE IN THE ELEMENTARY SCHOOL
See the English section of the undergraduate bulletin.
ENGL 375 LITERATURE IN THE SECONDARY SCHOOL
See the English section of the undergraduate bulletin.
EDUC 375 CLASSROOM MANAGEMENT
Introduction to varied teaching strategies in the learning environment and the special consideration required in small school and classroom contexts. Explore the human relations within the teaching profession.
EDUC 381 ELEMENTARY CURRICULUM AND INSTRUCTION: RELIGION 2
Study of materials, strategies and relationships that provide effective Bible instruction in elementary school. Prerequisite: Acceptance into Phase II.
EDUC 382 ELEMENTARY CURRICULUM AND INSTRUCTION: SOCIAL STUDIES
Study of strategies for the implementation of the social studies curriculum in an elementary school. Instruction will be given in appropriate use of resources and materials. Prerequisite: Acceptance into Phase II.
EDUC 383 ELEMENTARY CURRICULUM AND INSTRUCTION: SCIENCE
A study of teaching of science in the elementary school with emphasis on the nature of science as a process of inquiry. Prerequisite: Acceptance into Phase II.
EDUC 385 EDUCATIONAL EVALUATION
Introduction to principles and techniques of evaluating classroom elementary and secondary education.
EDUC 395 METHODS OF SCHOOL HEALTH INSTRUCTION
See the Health, Physical Education and Recreation section of the undergraduate bulletin.
EDUC 395 METHODS OF TEACHING SECONDARY PHYSICAL EDUCATION
See the Health, Physical Education and Recreation section of the undergraduate bulletin.
EDUC 494 HISTORY OF EDUCATION
History of the history of education.
EDUC 462 PRINCIPLES AND PROCEDURES OF GUIDANCE
Introduction to the philosophic foundations, organization, and evaluation of the school guidance programs.
EDUC 438 HANDWORK ACTIVITIES
Study of handwork activities as applied to the elementary grades and recreational activities. Application of the methods of application, materials and processes.
EDUC 444 SOCIOLGY OF EDUCATION
See the Sociology and Social Work section of the undergraduate bulletin.
EDUC 473 PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL
See the Health, Physical Education and Recreation section of the undergraduate bulletin.
EDUC 474 WORKSHOP
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, as quarter hour.
EDUC 475 TEACHING READING SKILLS IN CONTENT AREAS
Incorporation of reading strategy and effective teaching techniques. Students present brief demonstration lessons to a small class of children. Self-evaluation is emphasized. Prerequisite: Admission to Phase II and two methods courses.
EDUC 479 SECONDARY MICROTEACHING
Involves procedures which are applicable or are used in selected laboratory packages in selected teaching skills will be provided following the microteaching model. The skills will vary each week and each student will participate weekly in an after-class teaching laboratory. Prerequisite: Admission to Phase II and one methods course in the student's major or minor area of study.
EDUC 482 EDUCATION OF THE GIFTED
Introduction to the design of learning opportunities for gifted children in the light of their psychological characteristics.
EDUC 493 SYSTEMS OF THOUGHT
Introduction to various aspects of philosophical and theological systems that are used in education.
EDUC 495 ELEMENTARY SCHOOL GUIDANCE
Studied of the needs for elementary school guidance with emphasis upon current trends and issues. Focuses the tools and techniques of both classroom and out of class guidance processes.

SUPPORTING COURSES — Psychology
PSYC 130 is prerequisite to all other courses in psychology.
SUPPORTING COURSES

REL 588 THE OLD TESTAMENT IN SOCIAL AND CULTURAL PERSPECTIVE
Study of main interpretations of the Old Testament from sociological and anthropological perspectives. Includes a discussion of how western culture has affected the study of the Old Testament.

REL 592 STUDIES IN ADVENTIST HISTORY
Study of selected aspects of Adventist history and theology. Key aspects are as follows: Theological and doctrinal development, the history of Adventist institutions, and the theory and practice of missions and evangelism.

REL 593 READING IN SPIRITUAL CLASSICS
A study of selected works for their contribution to the understanding of Christian life and experience. Among the authors are Augustine, Virgin of the Gypsies, John of the Cross, John Wesley, and George Fox.

REL 595 PRACTICUM IN RELIGIOUS EDUCATION
Supervised practicum in religious education. Will take place during an internship format, setting. Permission of School of Theology required.

REL 596 FOUNDATIONS OF RELIGIOUS EDUCATION
A survey of the scriptural, historical, philosophical and psychological bases of religious education.

REL 597 SELECTED THEMES IN THE HISTORY OF CHRISTIAN ETHICS
Theology will include war and violence, sexual ethics, economics, and the relation of Christian societies to secular government.

REL 598 STUDIES IN CHRISTIAN SYSTEMATIC THEOLOGY
Examination of selected issues, such as monism, Christian, creation, anthropology, Sabbath, association, with emphasis on their implications for the practice of the church.

SUPPORTING COURSES — Education

EDUC 561 ELEMENTARY CURRICULUM AND INSTRUCTION: LANGUAGE ARTS
Study of the development of listening and speaking, thinking, listening, reading and writing skills. Observation and evaluation of teacher candidates will be required. Prerequisites: Acceptance into Phase II.

EDUC 562 ELEMENTARY CURRICULUM AND INSTRUCTION: READING
Study of course theory relating to the nature of reading and effective instructional procedures and resources. Activities in the elementary school will include observation of reading instruction. Prerequisite: Acceptance into Phase II.

EDUC 571 ELEMENTARY CURRICULUM AND INSTRUCTION: MATHMATICS
Survey of the content, media and approaches used in teaching mathematics in the elementary school, including additional preparation for the Praxis Examination. Prerequisites: Acceptance into Phase II.

LIBR 574 LIBRARY MATERIALS FOR CHILDREN
See the Library Science section of the undergraduate bulletin.

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

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

EDUC 375 CLASSROOM MANAGEMENT
Introduction to varied instructional techniques and the planning environment and the special considerations required in small school, urban, and rural classrooms. Explores the human relations within the teaching profession.

EDUC 381 ELEMENTARY CURRICULUM AND INSTRUCTION: RELIGION I
Study of materials, strategies and relationships that provide effective Bible instruction in elementary school. Prerequisite: Acceptance into Phase II.

EDUC 382 ELEMENTARY CURRICULUM AND INSTRUCTION: SOCIAL STUDIES
Study of the strategies for the implementation of the social studies curriculum in a elementary school. Instruction will be given in appropriate uses of resources and materials. Prerequisite: Acceptance into Phase II.
PSYC 350: ELEMENTARY STATISTICS
Introduction to fundamental procedures for summarizing and interpreting quantitative data from tests and research in the social sciences.

PSYC 360: SMALL GROUP PROCEDURES
Study of small group processes by the use of simulations, confrontation techniques and role playing. Especially useful for teachers, ministers, nurses and social workers.

PSYC 375: EXPERIMENTAL PROBLEMS
Advanced study of experimental design with application to an individual research project. Prerequisite: PSYC 350 or equivalent.

PSYC 400: TOPICS IN PSYCHOLOGY
The study of advanced topics through class activities. One to three hours per quarter.

PSYC 405: PSYCHOLOGY OF ORGANIZATIONAL CHANGE
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 (e.g., churches, communities, schools, businesses, etc.)

PSYC 410: BEHAVIOR MODIFICATION
Study of the principles and processes of learning with special emphasis on the shaping and changing of human behavior.

PSYC 415: DYNAMICS OF BEHAVIOR
Introduction to the dynamic mechanisms of human adjustment and behavior.

PSYC 420: INTRODUCTION TO CLINICAL PSYCHOLOGY
Introduction to the application of psychological theories and techniques as used in the clinical setting. Studies various approaches to treatment of emotional problems in clinical practice, hospital and community settings.

PSYC 425: PSYCHOLOGY AND RELIGION
Examination of psychological concepts and human behavior from a biblical and theological perspective.

PSYC 430: PSYCHOLOGICAL TESTING
Study of the principles of test selection, administration and interpretation, consideration of the contributions and limitations of the major types of standardized tests and inventories used in the behavioral sciences.

PSYC 435: PSYCHOLOGY OF THE EXCEPTIONAL INDIVIDUAL
Study of the characteristics, development and problems of the exceptional individual. Emphasis within given course varies; these individuals are in elementary and secondary school.

PSYC 440: MOTIVATION
Study of basic drives and causes of behavior in organisms with emphasis upon human behavior.

PSYC 444: SOCIAL PSYCHOLOGY
Study of the dynamics of social interaction and interpersonal behavior with application to contemporary society.

PSYC 445: SOCIAL PSYCHOLOGY LABORATORY
Companion course PSYC 444.

PSYC 446: PSYCHOLOGY OF PERSONALITY
Study of theories concerning personality development, assessment and adjustment.

PSYC 449: MENTAL HEALTH
Study of psychological and pathological factors related to emotional maturity; individual mental health, classroom climate, patterns of acceptance and rejection.

PSYC 460: CHILDHOOD LEARNING DISORDERS
Introduction to psychological and educational progress with emphasis on perceptual, attentional, and motor units. Taught for teachers and counselors of young children in both early childhood and elementary school levels. Prerequisite: PSYC 225.

PSYC 464: COUNSELING RELATIONSHIPS
Introduction to psychological theory and skills essential for developing effective helping relationships with individuals and groups.

PSYC 465: COUNSELING SEMINAR
Group discussion of counseling experiences for students planning on counseling careers. Prerequisite: PSYC 464 or permission of the instructor.
PSYC 350 ELEMENTARY STATISTICS
Introduction to fundamental procedures for summarizing and interpreting quantitative data from tests and research in the social sciences.

PSYC 360 SMALL GROUP PROCEDURES
Study of small group process by the use of simulation, confrontation techniques and role playing. Especially useful for teachers, ministers, nurses and social workers.

PSYC 375 EXPERIMENTAL PROBLEMS
Advanced study of experimental design with application to an individual research project. Prerequisite: PSYC 350 or equivalent.

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Study of the principles and processes of learning with special emphasis on the shaping and changing of human behavior.

PSYC 415 DYNAMICS OF BEHAVIOR
Introduction to the dynamic mechanisms of human adjustment and behavior.

PSYC 420 INTRODUCTION TO CLINICAL PSYCHOLOGY
Introduction to the application of psychological theories and techniques as used in the clinical setting. Surveys various approaches to treatment of emotional problems in clinical practice, hospital and community settings.

PSYC 425 PSYCHOLOGY AND RELIGION
Examination of psychological concepts and human behavior from a biblical and theological perspective.

PSYC 430 PSYCHOLOGICAL TESTING
Study of the principles of test selection, administration and interpretation, consideration of the contributions and limitations of the major types of standardized tests and inventories used in the behavioral sciences.

PSYC 435 PSYCHOLOGY OF THE EXCEPTIONAL INDIVIDUAL
Study of the characteristics, development and problems of the exceptional individual. Emphasis will be given to those individuals in elementary and secondary school.

PSYC 442 MOTIVATION
Study of basic drives and causes of behavior in organisms with emphasis upon human behavior.

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

PSYC 445 SOCIAL PSYCHOLOGY LABORATORY
Computer PSYC 444.

PSYC 446 PSYCHOLOGY OF PERSONALITY
Study of theories concerning personality development, assessment and adjustment.

PSYC 449 MENTAL HEALTH
Study of psychological and pathological factors related to emotional maturity, individual mental health, classroom climate, patterns of acceptance and rejection.

PSYC 460 CHILDHOOD LEARNING DISORDERS
Introduction to therapeutic and educational processes with emphasis on perceptual, sensory and motor deficits. Designed for teachers and correction of young children in both early child-care and elementary school levels. Prerequisite: PSYC 215.

PSYC 464 COUNSELING RELATIONSHIPS
Introduction to psychological theory and skills essential for developing effective helping relationships with individuals and groups.

PSYC 465 COUNSELING SEMINAR
Group discussion of counseling experiences for students planning on counseling careers. Prerequisite: PSYC 464 or permission of the instructor.
SUPPORTING COURSES
See the undergraduate bulletin for course descriptions and prerequisites.

ART
ART 564, 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 479 DIRECTED RESEARCH/PROJECT 1-3, 6
One to three hours any quarter; maximum, 6.

BIOLoGICAL SCIENCES (See pages 25-29)

BUSINESS
460 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 427 FUND ACCOUNTING 4
ACCT 430 AUDITING CONCEPTS 3
ACCT 431 AUDITING PRACTICES 3
BUED 474 WORKSHOP IN BUSINESS EDUCATION 2
BUED 479 DIRECTED RESEARCH/PROJECT 1-3, 6
Permission of chair of department required. One to three hours per quarter; maximum, 6.
BUED 491 PRINCIPLES OF BUSINESS EDUCATION 2
BUED 496 SEMINAR IN BUSINESS EDUCATION 2
ECON 441 MONEY AND BANKING 4
ECON 443 COMPARATIVE ECONOMIC SYSTEMS 4
ECON 455 PUBLIC FINANCE 4
FINA 451 INVESTMENTS 4
FINA 452 CREDIT ADMINISTRATION 4
MGMT 379 COMPENSATION MANAGEMENT 3
MGMT 473 HEALTH CARE ORGANIZATION AND MANAGEMENT 3
MGMT 476 MOTIVATION AND LEADERSHIP 4
MGMT 479 BUSINESS STRATEGY AND POLICIES 4
MKTG 481 PUBLIC RELATIONS 4
MKTG 485 RETAIL STORE OPERATIONS AND MANAGEMENT 4

CHEMISTRY
CHEM 351, 352, 353 PHYSICAL CHEMISTRY 3, 3, 3
CHEM 354, 355, 356 PHYSICAL CHEMISTRY LAB 1, 1
CHEM 400 TOPICS IN CHEMISTRY 1-3
CHEM 427 ORGANIC STRUCTURES AND MECHANISMS 3

COMMUNICATIONS
JOUR 400 TOPICS IN JOURNALISM 1-3
JOUR 412 SCRIPT WRITING 1-3
JOUR 419 DIRECTED RESEARCH/PROJECT 1-3, 6
SPCH 495 METHODS OF TEACHING SPEECH COMMUNICATION 3
SPCH 499 TOPICS IN COMMUNICATION 1-3
SPCH 501 INTRODUCTION TO GENERAL SEMINARICS 2
SPCH 545 PERSUASIVE SPEAKING 4
SPCH 543 RHETORIC OF WESTERN THOUGHT 3
SPCH 579 DIRECTED RESEARCH/PROJECT 1-3, 6
SPHA 411 AUDITORY 3
SPHA 435 LANGUAGE DISORDERS 4
SPHA 461 DIAGNOSIS IN SPEECH-LANGUAGE PATHOLOGY 3
SPHA 473 CLINIC PALATE 3
SPHA 475 VOICE DISORDERS 3

ENGLISH
ENGL 354 ROMANTIC ENGLISH LITERATURE 4
ENGL 355 VICTORIAN LITERATURE 4
ENGL 356 TWENTIETH-CENTURY ENGLISH LITERATURE 4
ENGL 356 ROMANTIC AMERICAN LITERATURE 4
ENGL 360 AMERICAN REALISM AND NATURALISM 4
ENGL 366 TWENTIETH-CENTURY AMERICAN LITERATURE 4
ENGL 374 LITERATURE IN THE ELEMENTARY SCHOOL 3
ENGL 371 LITERATURE IN THE SECONDARY SCHOOL 3
ENGL 394 DIRECTED READING 1-2
ENGL 395 METHODS OF TEACHING HIGH SCHOOL ENGLISH 3
ENGL 444 MAJOR AUTHOR 3
ENGL 445 SHAKESPEARE 3
ENGL 445 LITERATURE OF THE BIBLE 4
ENGL 455 CLASSICAL BACKGROUND 3
ENGL 460 DEVELOPMENT OF ENGLISH DRAMA 3
SUPPORTING COURSES
See the undergraduate bulletin for course descriptions and prerequisites.

ART
ART 584, 365, 366 SCULPTURE 2, 2
ART 400 TOPICS IN ART 2, 2
The study of advanced topics through class activities. One to three hours per quarter.
ART 479 DIRECTED RESEARCH/PROJECT 1-3, 6
One to three hours per quarter; maximum, one.

BIOLOGICAL SCIENCES (See pages 25-29)

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 427 FUND ACCOUNTING 4
ACCT 430 AUDITING CONCEPTS 3
ACCT 433 AUDITING PRACTICES 3
BUD 474 WORKSHOP IN BUSINESS EDUCATION 2
BUD 479 DIRECTED RESEARCH/PROJECT 1-3, 6
Permission of chair of department required. One to three hours per quarter; maximum, six.
BUD 491 PRINCIPLES OF BUSINESS EDUCATION 2
BUD 496 SEMINAR IN BUSINESS EDUCATION 2
ECON 441 MONEY AND BANKING 4
ECON 443 COMPARATIVE ECONOMIC SYSTEMS 4
FINA 451 PUBLIC FINANCE 4
FINA 453 INVESTMENTS 4
FINA 457 CREDIT ADMINISTRATION 4
MGMT 479 COMPENSATION MANAGEMENT 3
MGMT 473 HEALTH CARE ORGANIZATION AND MANAGEMENT 3
MGMT 475 MOTIVATION AND LEADERSHIP 4
MGMT 470 BUSINESS STRATEGY AND POLICIES 4
MKTG 481 PUBLIC RELATIONS 4
MKTG 465 RETAIL STORE OPERATIONS AND MANAGEMENT 4

CHEMISTRY
CHEM 351, 352, 353 PHYSICAL CHEMISTRY 3, 3, 3
CHEM 354, 355, 356 PHYSICAL CHEMISTRY LAB 1, 1, 1
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