

A Partnership in Excellence



PACIFIC LUTHERAN
UNIVERSITY
CATALOG



The information contained herein reflects an accurate picture of Pacific Lutheran University at the time of publication. However, the university reserves the right to make necessary changes in procedures, policies, calendar, curriculum, and costs.

Listed in this catalog are course descriptions and summaries of degree requirements for majors, minors, and other programs in the College of Arts and Sciences and the Schools of the Arts, Business Administration, Education, Nursing, and Physical Education. Detailed degree requirements, often including supplementary sample programs, are available in the offices of the individual schools and departments. Advising by university personnel inconsistent with published statements is not binding.

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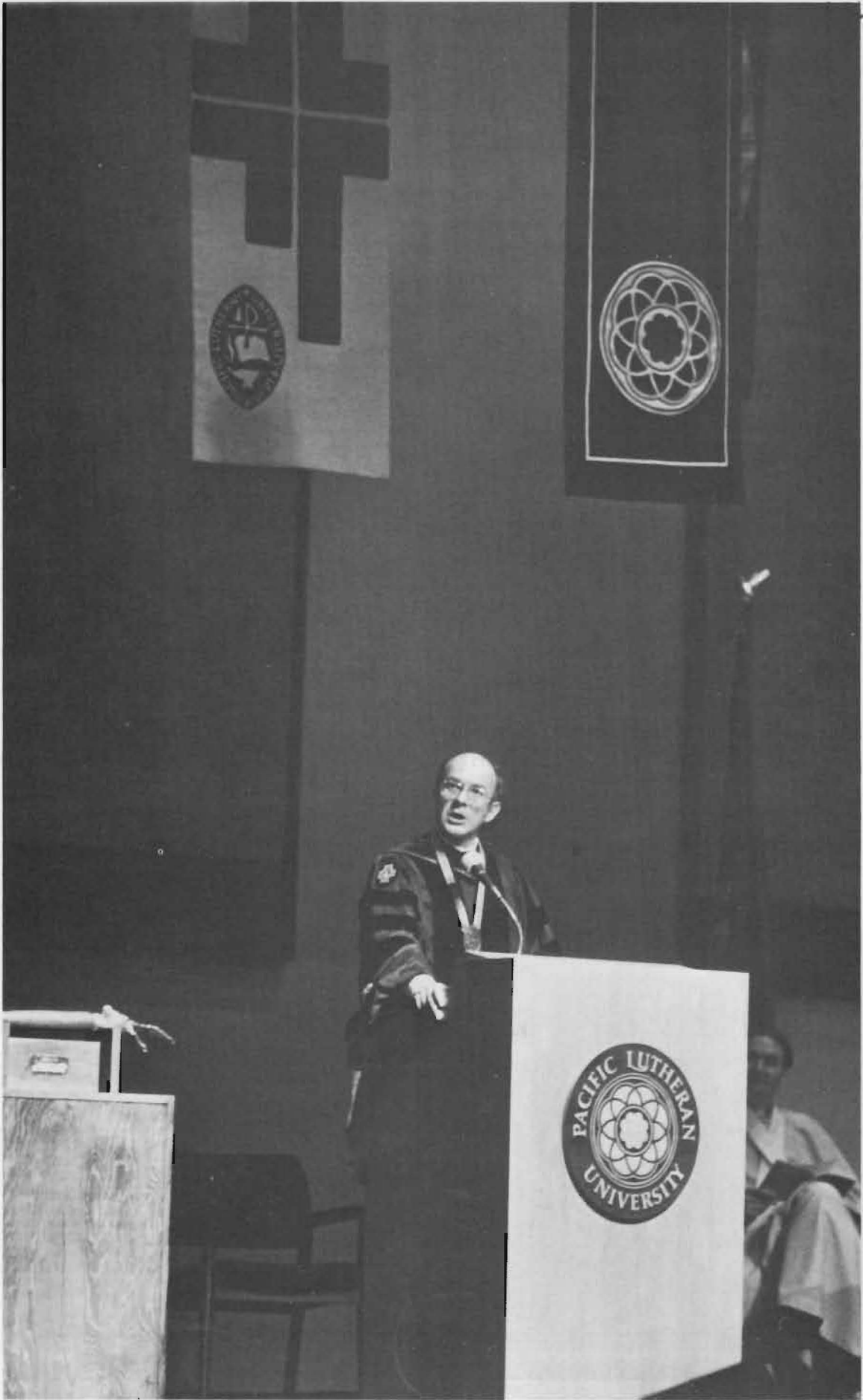
Pacific Lutheran University does not discriminate on the basis of sex, race, creed, color, national origin, age, or handicapped condition in the educational programs or activities which it operates, and is required by Title IX of the Education Amendments of 1972 and the regulations adopted pursuant thereto, by Title VI and Title VII of the Civil Rights Act of 1964, and by Section 504 of the Rehabilitation Act of 1973 not to discriminate in such manner. The requirement not to discriminate in educational programs and activities extends to employment therein and to admission thereto.

Inquiries concerning the application of said acts and published regulations to this university may be referred to:

1. The Director of Personnel, Room 107, Hauge Administration Building, Pacific Lutheran University, telephone 535-7185, for matters relating to employment policies and practices, promotions, fringe benefits, training, and grievance procedures for personnel employed by the university.
2. The Deputy Provost, Room 100, Hauge Administration Building, Pacific Lutheran University, telephone 535-7125, for matters relating to student admissions, curriculum, and financial aid.
3. The Assistant Dean for Student Life, Room 113, Hauge Administration Building, Pacific Lutheran University, telephone 535-7191, for matters regarding administrative policies relating to students, student services, and the student administrative grievance procedure.
4. The Registrar, Room 107, Hauge Administration Building, Pacific Lutheran University, telephone 535-7131, for matters relating to the application of Section 504 of the Rehabilitation Act.
5. The Director of the Academic Advising and Assistance Center, Mortvedt Library, Pacific Lutheran University, telephone 535-7519, for matters relating to the academic grievance procedure.
6. Or the Assistant Secretary for Civil Rights, U.S. Department of Education, Switzer Building, 330 C Street S.W., Washington, D.C. 20202.

Pacific Lutheran University complies with the Family Education Rights and Privacy Act of 1974. Inquiries concerning the application of this act and published regulations to this university may be referred to the Staff Assistant to the Vice President and Dean for Student Life, Room 113, Hauge Administration Building, Pacific Lutheran University, telephone 535-7191, or the Family Education Rights and Privacy Office, Department of Education, 330 Independence Avenue S.W., Washington, D.C. 20201 (telephone 202/245-0233).

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Objectives of the University

Pacific Lutheran University, born of the Reformation spirit, maintains the privilege of exploration and learning in all areas of the arts, sciences, and religion. The basic concern of Martin Luther was religious, but his rejection of church tradition as primary authority, and his own free search for religious truth, served in effect to liberate the modern mind in its quest for all truth. The total impact of Luther's stand has permanently shaped the modern world and helped provide the modern university with its basic methodology.

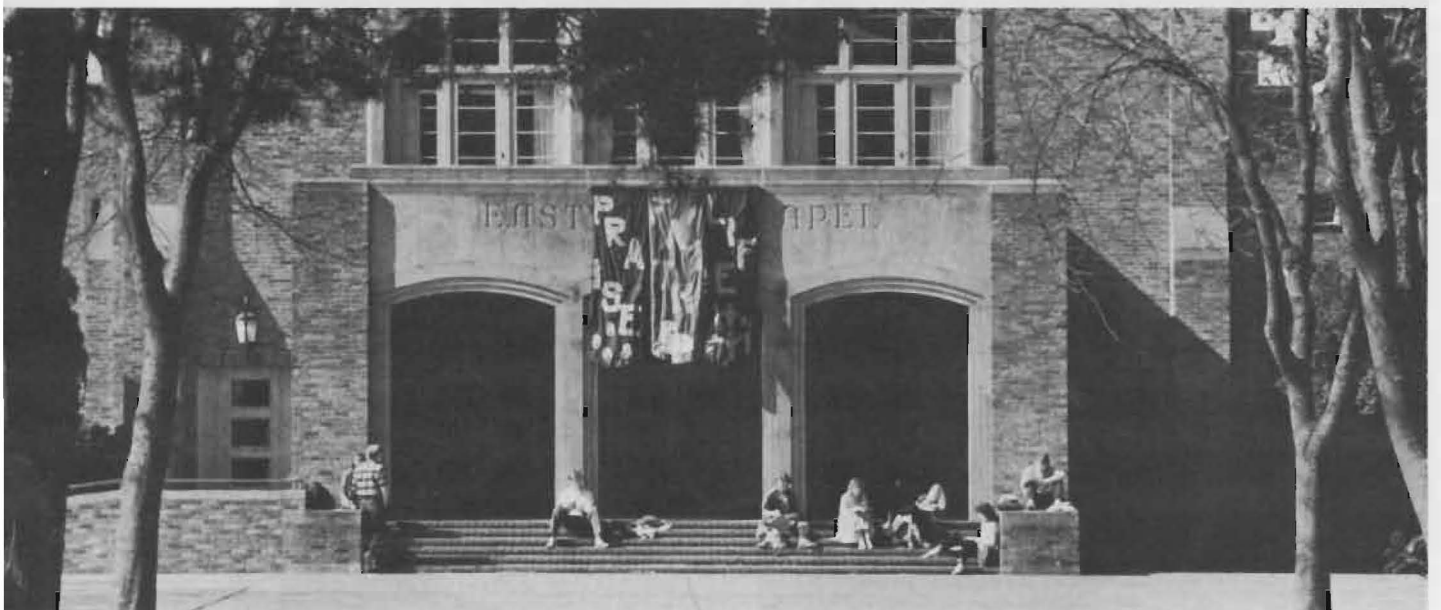
Pacific Lutheran University is a community of professing Christian scholars dedicated to a philosophy of liberal education. The major goals of the institution are to inculcate a respect for learning and truth, to free the mind from the confinements of ignorance and prejudice, to organize the powers of clear thought and expression, to preserve and extend knowledge, to help men and women achieve professional competence, and to establish lifelong habits of study, reflection, and learning. Through an emphasis on the liberating arts, the University seeks to develop creative, reflective, and responsible persons. At the same time, the acquisition of specialized information and technical skill is recognized as a condition of successful involvement in the modern world. The University seeks to develop the evaluative and spiritual capacities of the students and to acquaint them honestly with rival claims to the true and the good. It encourages the pursuit of rich and ennobling experiences and the development of significant personhood through an appreciation of humanity's intellectual, artistic, cultural, and natural surroundings. The University affirms its fundamental obligation to confront liberally educated men and women with the challenges of Christian faith and to instill in them a true sense of vocation.

By providing a rich variety of social experiences, Pacific Lutheran University seeks to develop in the student a joy in abundant living, a feeling for the welfare and personal integrity of others, good taste, and a sense of social propriety and adequacy. Distinguishing between personal Christian ethics and normal social controls, the University adopts only such rules as seem necessary for the welfare of the educational community.

The physical development of students is regarded as an integral part of their liberal education. Hence the University encourages participation in physical activities and respect for health and fitness.

Professing a concern for human nature in its entirety, the faculty of the University encourages wholesome development of Christian faith and life by providing opportunities for worship and meditation, offering systematic studies of religion, and encouraging free investigation and discussion of basic religious questions. The University believes the essence of Christianity to be personal faith in God as Creator and Redeemer, and it believes that such faith born of the Holy Spirit generates integrative power capable of guiding human beings to illuminating perspectives and worthy purposes. The University community confesses the faith that the ultimate meaning and purposes of human life are to be discovered in the person and work of Jesus Christ.

As an educational arm of the Church, Pacific Lutheran University provides a locus for the fruitful interplay of Christian faith and all of human learning and culture, and as such holds it a responsibility to discover, explore, and develop new frontiers. Believing that all truth is God's truth, the University, in achieving its educational and spiritual goals, maintains the right and indeed the obligation of faculty and students to engage in an unbiased search for truth in all realms.



Directory

(206) 531-6900

The university is located at South 121st Street and Park Avenue in suburban Parkland. Office hours are from 8:00 a.m. to 5:00 p.m. Monday through Friday. Most offices are closed for chapel on Monday, Wednesday, and Friday from 10:00 to 10:30 a.m. during the school year, and on Fridays during June, July, and August all offices close at 12 noon. The university also observes all legal holidays.

The University Center maintains an information desk which is open daily until 10 p.m. (11 p.m. on Friday and Saturday).

Visitors are welcome at any time. Special arrangements for tours and appointments may be made through the admissions office or the university relations office.

FOR INFORMATION ABOUT:

General interests of the university, church relations, and community relations

Academic policies and programs, faculty appointments, curriculum development, academic advising and assistance, and foreign study

General information, admission of students, publications for prospective students, freshman class registration, and advanced placement

Transcripts of records, schedules, registration, and transfer students

Financial assistance, scholarships, and loans

Financial management and administrative services

Fees and payment plans

Campus parking, safety, and information

Residence halls, counseling and testing, health services, minority affairs, foreign students, and extracurricular activities

Gifts, bequests, grants, and the annual fund

Work-study opportunities, student employment, and career options

Graduate programs and summer sessions

Continuing education opportunities

Alumni activities

Worship services and religious life at the university

CONTACT THE OFFICE OF:

THE PRESIDENT

THE PROVOST

College of Arts and Sciences

Division of Humanities

Division of Natural Sciences

Division of Social Sciences

School of the Arts

School of Business Administration

School of Education

School of Nursing

School of Physical Education

THE DEAN OF ADMISSIONS

THE REGISTRAR OR THE TRANSFER COORDINATOR

THE DIRECTOR OF FINANCIAL AID

THE VICE PRESIDENT-FINANCE AND OPERATIONS

THE STUDENT ACCOUNTS COORDINATOR

THE DIRECTOR OF CAMPUS SAFETY AND INFORMATION

THE VICE PRESIDENT FOR STUDENT LIFE

THE VICE PRESIDENT FOR DEVELOPMENT

THE DIRECTOR OF CAREER PLANNING AND PLACEMENT

THE DEAN OF GRADUATE AND SUMMER STUDIES

THE DIRECTOR OF CONTINUING EDUCATION

THE DIRECTOR OF THE ALUMNI ASSOCIATION

THE UNIVERSITY PASTORS

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Academic Calendar

1984-85

SUMMER SESSION 1984

Monday, June 25	Classes begin, 8:00 a.m.
Wednesday, July 4	Independence Day holiday
Friday, August 24	Summer session closes; commencement

FALL SEMESTER 1984

Sunday, September 9 to	
Tuesday, September 11	Orientation and registration
Wednesday, September 12	Classes begin, 8:00 a.m.
	Opening convocation, 10:00 a.m.
Friday, October 19	Mid-semester break
Wednesday, November 21	Thanksgiving recess begins, 12:50 p.m.
Monday, November 26	Thanksgiving recess ends, 8:00 a.m.
Friday, December 14	Classes end, 6:00 p.m.
Saturday, December 15	Mid-year commencement
Monday, December 17 to	
Friday, December 21	Final examinations
Friday, December 21	Semester ends after last exam

INTERIM 1985

Monday, January 7	Begins
Monday, January 21	Martin Luther King, Jr., Birthday holiday
Friday, February 1	Ends

SPRING SEMESTER 1985

Tuesday, February 5	Registration
Wednesday, February 6	Classes begin, 8:00 a.m.
Monday, February 18	Presidents' Day holiday
Friday, March 29	Easter recess begins, 6:00 p.m.
Monday, April 8	Easter recess ends, 4:00 p.m.
Friday, May 17	Classes end, 6:00 p.m.
Monday, May 20 to	
Friday, May 24	Final examinations
Friday, May 24	Semester ends after last exam
Sunday, May 26	Worship service and commencement

Academic Calendar

1985-86

SUMMER SESSION 1985

Monday, June 24 **Classes begin, 8:00 a.m.**
 Thursday, July 4 **Independence Day holiday**
 Friday, August 23 **Summer session closes; commencement**

FALL SEMESTER 1985

Saturday, September 7 to
 Monday, September 9 **Orientation and registration**
 Tuesday, September 10 **Classes begin, 8:00 a.m.**
 **Opening convocation, 10:00 a.m.**
 Friday, October 25 **Mid-semester break**
 Wednesday, November 27 **Thanksgiving recess begins, 12:50 p.m.**
 Monday, December 2 **Thanksgiving recess ends, 8:00 a.m.**
 Friday, December 13 **Classes end, 6:00 p.m.**
 Saturday, December 14 **Mid-year commencement**
 Monday, December 16 to
 Friday, December 20 **Final examinations**
 Friday, December 20 **Semester ends after last exam**

INTERIM 1986

Monday, January 6 **Begins**
 Monday, January 20 **Martin Luther King, Jr., Birthday holiday**
 Friday, January 31 **Ends**

SPRING SEMESTER 1986

Tuesday, February 4 **Registration**
 Wednesday, February 5 **Classes begin, 8:00 a.m.**
 Monday, February 17 **Presidents' Day holiday**
 Friday, March 21 **Easter recess begins, 6:00 p.m.**
 Monday, March 31 **Easter recess ends, 4:00 p.m.**
 Friday, May 16 **Classes end, 6:00 p.m.**
 Monday, May 19 to
 Friday, May 23 **Final examinations**
 Friday, May 23 **Semester ends after last exam**
 Sunday, May 25 **Worship service and commencement**



General Information

HISTORY

Pacific Lutheran University was founded in 1890 by men and women of the Lutheran Church in the Northwest, and by the Reverend Bjug Harstad in particular. Their purpose was to establish an institution in which their people could be educated. Education was a venerated part of the Scandinavian and German traditions from which these pioneers came.

The institution opened as Pacific Lutheran Academy. Growing in stature, PLA became a junior college in 1921. Ten years later, it was organized into a three-year normal school which became a college of education in 1939.

After 1941, it expanded as Pacific Lutheran College until it was reorganized as a university in 1960, reflecting the growth of both its professional schools and liberal arts core.

ACCREDITATION

Pacific Lutheran University is fully accredited by the Northwest Association of Schools and Colleges as a four-year institution of higher education and by the National Council for the Accreditation of Teacher Education for the preparation of elementary and secondary teachers, principals, and guidance counselors with the master's degree as the highest degree approved. The university is also approved by the American Chemical Society. The School of Nursing is accredited by the National League for Nursing. The School of Business Administration is accredited by the American Assembly of Collegiate Schools of Business. The Social Work Program is accredited by the Council on Social Work Education at the baccalaureate level. The Department of Music is accredited by the National Association of Schools of Music.

INSTITUTIONAL MEMBERSHIPS

The University is a member of:

- American Association of Higher Education
- American Council on Education
- Association of American Colleges
- Independent Colleges of Washington, Incorporated
- Lutheran Educational Conference of North America
- National Association of Summer Schools
- Washington Friends of Higher Education
- Western Association of Graduate Schools
- Western Interstate Commission for Higher Education

GROUNDS

Located in suburban Parkland, PLU has a picturesque 126-acre campus, truly representative of the natural grandeur of the Pacific Northwest.

ENROLLMENT

2,657 full-time students
876 part-time students

FACULTY

216 full-time faculty
75 part-time faculty

STUDENT/FACULTY RATIO

14.8:1

ACADEMIC PROGRAM

In 1969 Pacific Lutheran University adopted the 4-1-4-calendar which consists of two fourteen-week semesters bridged by a four-week interim period.

Course credit is computed by hours. The majority of courses are offered for 4 hours. Each undergraduate degree candidate is expected to complete 128 hours with an overall grade point average of 2.00.

Degree requirements are specifically stated in this catalog. Each student should become familiar with these requirements and prepare to meet them.

LIBRARY SERVICES

The Robert A.L. Mortvedt Library is the central multi-media learning resource center serving the entire university community. Its collections are housed and services provided in a modern functional building which has study spaces for 700 students and shelving for more than one-quarter million books, periodicals, microfilm, and audio-visual materials. The library receives over 1,300 current magazines, journals, and newspapers.

In addition to its general collection of books and other materials, the library has a special collection devoted to the Scandinavian Immigrant Experience and contains the university and regional Lutheran church archives. Other special collections include the Curriculum Collection of the School of Education, the microfiche collection of college catalogs, maps, pamphlets, and national and trade bibliographies.

The library is open for service 110 hours during a typical week in a regular term. A staff of twenty-seven full and part-time librarians and assistants offer expert reference, information, and media services. The reference staff provides beginning and advanced library instruction for all students. In addition to standard reference service, the library staff also offers computerized bibliographic information service. As the result of the library's extensive collection of bibliographic tools, computer access to other collections, and electronic mail service, students and faculty have rapid access to materials which can be borrowed from other libraries.



LATE AFTERNOON AND EVENING CLASSES

To provide for the professional growth and cultural enrichment of persons unable to take a full-time college course, the university conducts late-afternoon and evening classes. In addition to a wide variety of offerings in the arts and sciences, there are specialized and graduate courses for teachers, administrators, and persons in business and industry.

SUMMER SESSION

An extensive summer school curriculum, of the same quality as that offered during the regular academic year, is available to all qualified persons. In addition, summer session typically is a time when the faculty offer innovative, experimental courses which cover a broad range of contemporary issues and perspectives in many fields. The summer session consists of two four-week terms, a one-week pre-session, and a one-week interim session, and begins in the middle of June. A few courses are taught in the evening, two nights per week for nine weeks, and Master of Business Administration courses are taught during two six-week terms, two nights per week. Designed for undergraduates and graduate students alike, the program serves teachers and administrators seeking credentials and special courses, freshmen desiring to initiate college study, and others desiring special studies offered by the schools and departments. Transient students who enroll for the summer session need only submit a letter of academic standing or give other evidence of being prepared for college study.

A complete *Summer Session Catalog*, outlining the curriculum as well as special institutes, workshops and seminars, is printed each spring and is available from the dean of the summer session at the university.



MIDDLE COLLEGE

PLU offers a special six-week summer program for high school juniors and seniors and for first-year college students. Called Middle College, the program is designed to ease the transition from high school to college by sharpening learning skills that are essential to successful completion of a college or university program.

Middle College has both an academic program and a counseling and testing component. All students are thoroughly tested and evaluated in private sessions with regard to their reading, writing, verbal, and mathematical skills. In addition, career counseling is provided. The aim of Middle College counseling is to assess each student's talents and interests in order to provide direction and goals for the college experience.

The academic program offers a chance to improve specific learning skills essential to college success. The classes, offered at several levels in several disciplines, are for Middle College students only, thereby allowing small class size and close contact between students and faculty. Students may select 8 to 10 credit hours from among the classes offered, and each student's program is individualized to promote maximum growth.

PROJECT ADVANCE

Each semester PLU offers Project Advance, a special enrichment program for high school juniors and seniors. Designed to complement high school studies, Project Advance allows students to earn one hour of university credit and to experience college life and study. The topic of the course is different each semester, and fall topics are chosen to coincide with the high school National Debate Topic. Project Advance classes meet once a week for six weeks in the late afternoon.

RETENTION OF FRESHMEN

The retention of students entering as freshmen has been monitored since 1972. Those data are presented in the following table:

Retention of Entering Freshmen

	To Sophomore Year	To Junior Year	To Senior Year
1972	70.1%	51.9%	46.1%
1973	74.7%	54.3%	48.7%
1974	74.0%	54.0%	49.8%
1975	71.2%	52.9%	50.8%
1976	69.3%	52.8%	47.5%
1977	74.7%	57.2%	52.4%
1978	74.2%	58.6%	56.4%
1979	74.8%	60.6%	55.4%
1980	78.6%	58.2%	54.1%
1981	71.1%	57.1%	
1982	77.6%		



Admission

Pacific Lutheran University welcomes applications from students who have demonstrated capacities for success at the baccalaureate level. Applicants who present academic records and personal qualities which our experience indicates will enable them to succeed at the university and benefit from the environment will be offered admission. Applicants for admission are evaluated without regard to sex, race, creed, color, age, national origin, or handicapped condition. Selection criteria include grade point average, class rank, transcript pattern, test scores, and recommendations.

In evaluating applications the Dean of Admissions interprets grade point averages and class rank in relation to the quality of the curriculum which the applicant has pursued in high school and in the light of recommendations published by the national Commission on Excellence in Education. For example, a standard high school program in preparation for college would typically include the following:

- English: 4 years
- Mathematics: 3 years (algebra, 2 years, and geometry, 1 year)
- Foreign Language: 2 years
- Social Studies: 2 years
- Laboratory Sciences: 2 years
- Electives: 3 years (selected from the areas listed above, as well as courses in computer science, speech, debate, typing, and music).

Additional study of both mathematics and foreign language is advisable for certain areas in the arts and sciences and in some professional programs. Those who follow the above preparatory program will find most curricular offerings of the university open to them and may also qualify for advanced placement in some areas.

Students are admitted to either the fall or spring semester. Acceptance to the fall term carries permission to attend the previous summer sessions. Spring acceptance approves enrollment in the January interim. The following application deadlines are suggested: *Fall Semester—June 1; Spring Semester—January 1.*

APPLICATION PROCEDURE:

ENTERING FRESHMEN

Students planning to enter as freshmen may submit application materials anytime after completion of the junior year of high school. Admission decisions are made beginning December 1 unless a request for Early Decision is received. Candidates are notified of their status as soon as their completed application has been received and evaluated. Credentials required are:

1. *Formal Application:* Submit the *Uniform Undergraduate Application for Admission to Four-Year Colleges and Universities in the State of Washington*. Available from high school counselors or the PLU Office of Admissions.
2. *\$25.00 Application/Records Fee:* A \$25 fee must accompany your application or be mailed separately. This non-refundable service fee does not apply to your account. Make checks or money orders payable to Pacific Lutheran University and mail to the PLU Office of Admissions.
3. *Transcript:* The transcript you submit must include all credits completed through your junior year of high school. If admission is offered, an acceptable final transcript which indicates satisfactory completion of the senior year and attainment of a diploma must be presented.
4. *Recommendations:* Two recommendations must be prepared by principals, counselors, pastors, or other qualified persons. The PLU Office of Admissions will supply the forms.
5. *Test Requirement:* All entering freshmen must submit scores from either the College Board, Scholastic Aptitude Test (SAT), or the American College Test Assessment (ACT) or, for Washington State residents, the Washington Pre-College Test (WPCT). Registration procedures and forms are available at high school counseling offices.

EARLY DECISION

High school students who have decided upon PLU as their first choice may be offered admission as early as October 1 of their senior year. Early Decision applications must be made by *November 15* of the senior year. SAT, ACT, or WPCT scores from the previous May or July are acceptable. Early Decision students are given preferential treatment in campus housing and financial aid. An Early Decision form is available from the Office of Admissions. If an Early Decision is unfavorable, a student may still be considered for regular admission.

EARLY ADMISSION

Qualified students interested in accelerating their formal education may begin work toward a degree after completion of the junior year or first semester of the senior year of high school. Exceptional students who wish to enroll before completing all required units in high school must have a letter submitted by a recognized school official which approves early college admission and gives assurance that a high school diploma will be issued after completion of specified college work. Only students highly recommended for Early Admission will be considered. Generally these students rank among the top students in their class and present high aptitude test scores.

ADVANCED PLACEMENT OPPORTUNITIES

1. *College Board Examinations:* Students interested in seeking advanced placement or credit toward graduation through the examination program of the College Board should direct inquiries for specific information to the department or school which offers the academic subject of their choice. General inquiries about the College Board program may be addressed to the Office of Admissions.
2. *Departmental Examinations:* A number of departments and schools offer placement examinations in order that students may be advised as to the level at which they may most advantageously pursue a given subject. Credit toward graduation may be given in certain cases, depending on the examination score and whether the subject matter was *not* part of the course work by which the high school diploma was earned. Again, inquiries for specific information should be directed to the department or school offering the particular subject.

APPLICATION PROCEDURE:

TRANSFER STUDENTS

Students who began their higher education at other accredited colleges or universities are encouraged to apply for admission with advanced standing. Candidates must have good academic and personal standing at the institution last attended full-time. Although it does not guarantee admission, a grade point average of (2.25) in all college work attempted is required for regular admission. Test scores may be required for applicants who have limited college experience. Credentials required are:

1. *Formal Application:* Submit a *Uniform Undergraduate Application* with \$25.00 non-refundable application/records fee.
2. *Transcripts:* Official transcripts from all previous collegiate institutions attended must be sent by those institutions directly to the PLU Office of Admissions. Official high school transcripts of credits are necessary if they are not listed on college transcripts.
3. *Clearance Form:* The office of the dean of students at your most recently attended (full-time) institution must complete a clearance form (provided by the PLU Office of Admissions).
4. *Recommendations:* Two recommendations must be prepared by instructors, counselors, pastors, or other qualified persons. The PLU Office of Admissions provides the forms.

EVALUATION OF CREDITS

1. The registrar evaluates all transfer records and creates an advising booklet (*Gold Book*) indicating completion of any core requirements and total hours accepted. Individual schools and departments determine which courses satisfy major requirements.
2. Generally, college-level courses carrying grade "C" or above apply toward graduation. "D" graded courses will be withheld until a student has successfully completed one semester's work at the university.



3. A community college student may transfer a maximum of 64 semester (96 quarter) hours of credit from the two-year institution.
4. To qualify as a degree candidate, a student must take 32 of the final 38 semester hours in residence.

UNACCREDITED EDUCATIONAL EXPERIENCES

1. Credits earned in unaccredited schools are not transferable at the time of admission. Evaluation and decision on such courses will be made after the student has been in attendance at the university one semester.
2. The university allows up to 20 semester hours of USAFI credit and up to 20 semester hours for military credit, providing the total of the two does not exceed 30 semester hours.
3. The university does not grant credit for college level GED tests.
4. For information on the College Level Examination Program (CLEP), refer to the section on Credit by Examination under Academic Procedures.

ACCELERATED UNDERGRADUATE REENTRY FOR ADULTS (AURA)

Qualified adults, 30 years of age or older, who have not been enrolled in a baccalaureate degree program within the last five years, may seek advanced placement at up to the junior level through the AURA Program. Those accepted into AURA are granted one year's provisional admission, during which time they must complete 12 credits at PLU (including Psychology 401) with a grade point average of 2.5 or higher. Credit awards for prior learning are based upon systematic assessment by a faculty panel of the adequacy and appropriateness of knowledge and skills demonstrated in a portfolio prepared by the student with staff assistance. Credit awards may not exceed 48 semester credits less acceptable college transfer credits.

For details of the AURA Program, contact the Director, AURA Program, 535-7518.



Financial Aid

Recognizing that many students who want to attend Pacific Lutheran University would be unable to meet all expenses of enrollment from personal or family sources, the university attempts to provide financial assistance to all eligible students. Any student approved for enrollment or currently enrolled may request financial aid. Approximately 70% of the university's students receive help in the form of gift assistance (that is, scholarships, talent awards, or grants), low interest deferred loans, or employment. In many cases a financial aid award will be a combination of these forms of assistance.

The quantity and composition of an award is based upon demonstrated financial need, academic achievement, test scores, and other personal talents and interests. Need is determined from analysis of the Financial Aid Form (FAF), which is a statement of financial condition provided by the College Scholarship Service (CSS). Analysis of the Financial Aid Form determines an expected contribution for college expenses from the student and parents or guardian. "Financial Need" is defined as the difference between total student expenses for an academic year and the expected student/family contribution and is a primary factor in determining eligibility for most available aid.

Financial assistance is available to all qualified students regardless of their sex, race, creed, color, age, national origin, or handicapped condition.

APPLICATION PROCEDURE:

FRESHMEN AND TRANSFERS

1. PRIORITY DATE: All materials must be in the Financial Aid Office by March 1.
2. Mail a Financial Aid Form (FAF) to the College Scholarship Service (CSS) by February 1.
3. Be offered admission by March 1.
4. Submit a PLU Financial Aid Application (transfers only).
5. Submit a Financial Aid Transcript (transfers only).

APPLICATION PROCEDURE:

FORMER STUDENTS

Full-time students who have not been in attendance for one semester or more may seek readmission by obtaining an application for re-entrance from the Office of Admissions unless they have been approved, at the time of last enrollment, for a leave of absence. Students who have been dropped for academic or disciplinary reasons must identify a faculty member willing to act as a sponsor and adviser if re-admitted. Re-entering students who have attended another college in the meantime must request that a transcript be sent from the institution directly to the dean of admissions.

APPLICATION PROCEDURE:

FOREIGN STUDENTS

Foreign students who are qualified academically, financially, and in English proficiency are encouraged to join the university community. Information and application procedures may be obtained from the dean of admissions.

FINALIZING AN OFFER OF ADMISSION

1. *Medical Requirement:* Before final matriculation, each new full-time undergraduate student (ten semester hours or more) must submit a Medical History Record acceptable to the PLU Health Service.
2. *Advance Payment:* A \$100.00 advance payment is necessary following an offer of admission. This payment is the student's acknowledgement of acceptance and both guarantees a place in the student body and reserves housing on campus if requested. It is credited to the student's account and is applied toward expenses of the first semester. *Fall applicants offered admission before May 1 must submit the payment by May 1.* If circumstances necessitate cancellation of enrollment and the dean of admissions is notified in writing before May 1, the \$100.00 will be refunded. The refund date for interim is December 15, and for spring semester, January 15.
3. *New Student Information Form:* This form includes the application for housing and must be completed by *all* students and returned *with* the advance payment.

CONTINUING STUDENTS

1. PRIORITY DATE: All materials must be in the Financial Aid Office by April 1.
2. Mail a Financial Aid Form (FAF) to the College Scholarship Service (CSS) by March 1.
3. Complete a PLU Financial Aid Application.

An application for financial aid can be completed at any time, but failure to meet the priority date may result in a denial of aid even though need is demonstrated. The Financial Aid Office will consider all applicants for any award for which they might be eligible. *Aid awards are for one year and most are renewable, provided reapplication is completed on time, financial need continues, and satisfactory academic progress is maintained. Aid is not automatically renewed each year.*

NOTIFICATION OF AWARD DECISIONS

1. Award decisions for freshmen and transfer students who meet the March 1 completion date will be made in March, and actual notification will be mailed April 1.
2. Financial aid decisions for continuing PLU students are made in April and notifications are sent out beginning in May.

VALIDATING THE AID OFFER

Aid offers must be validated by returning the signed Financial Aid Award Notice and submitting the \$100 advance payment required by the university. This should be done as soon as possible but must be completed by May 1. Applicants not returning their acceptance of an award by the reply date specified will have their awards cancelled. If an applicant later decides to reapply, the application will be reviewed with the group currently being processed.

Aid, with the exception of College Work-Study, is credited to the student's account when all paperwork has been completed. One-half of the award is disbursed each semester. Parents and students are responsible for the charges in excess of the award.

In some cases aid is awarded in excess of direct university charges to help with living expenses. This money will remain on the student's account unless requested by the student through the Business Office after classes have begun.

Under federal regulations, adjustments to an award package must be made if a student receives additional awards of aid from sources

external to the university. In every case, however, the Financial Aid Office will attempt to allow the student to keep as much of the award package as possible. By treating aid received from external sources in this way, additional awards from the university's resources can be made to other qualified needy students.

RIGHTS AND RESPONSIBILITIES

The basic responsibility for financing an education at PLU rests with students and their families. In addition to expected contributions from parents or guardians, students are expected to assist by contributing from their savings and summer earnings. Financial assistance from the university is therefore supplementary to the efforts of a student's family. It is provided for students who demonstrate need.

Additional rights and responsibilities of financial aid recipients include:

1. Signing and returning *each* financial aid notice received.
2. Declining at any time any portion of an award.
3. Notifying the Financial Aid Office in case of a change in credit hours attempted; a change in marital status; a change in residence (off-campus or at home); or receipt of additional outside scholarships.
4. Signing additional documents in the Financial Aid Office at the beginning of each semester.

ACADEMIC REQUIREMENTS/SATISFACTORY PROGRESS

The policy of the Financial Aid Office is to allow students to continue receiving financial assistance as long as they are in good standing at the university. To do otherwise would cause a severe hardship on students who must devote their efforts to achieving satisfactory grades. However, no institutional grants will be awarded to students with cumulative grade point averages below 2.00.

To be given priority for most types of financial aid, an applicant must be enrolled as a full-time student. For federal financial aid programs, a full-time student is defined as any person enrolled for a minimum of twelve credit hours or more per semester. *Adjustments in an award may be made during the year if an aid recipient has not enrolled for a sufficient number of credit hours. However, each financial aid recipient must maintain satisfactory academic progress in the course of study he or she is pursuing in order to continue to receive financial assistance awarded by the PLU Financial Aid Office. The following minimum requirements are expected of each financial aid recipient: At least 75% of all credits for which a student is initially enrolled must be completed successfully each term (Washington State Need Grant recipients are also required to complete successfully at least 24 credits per academic year or such aid may not be re-awarded). In addition, students are required to be in good academic standing. Students placed on academic probation will be subject to financial aid probation (see ACADEMIC PROBATION under Academic Procedures).*

The academic record of each financial aid recipient is reviewed at the end of each year in which financial assistance has been awarded. Students failing to meet the above requirements are notified by the Financial Aid Office that they are on financial aid probation. The initial financial aid probation is a warning to the student that improved academic progress is expected. Students on financial aid probation for two consecutive terms, or three total terms, will not be eligible for further financial assistance unless they can show that extremely unusual circumstances prevented them from making satisfactory progress.

Undergraduate students may receive financial aid for up to six complete academic years. However, some financial aid programs (Washington State Need Grant and university gift programs) allow aid to be awarded a maximum of four academic years.

TYPES OF AID

UNIVERSITY GIFT ASSISTANCE

UNIVERSITY SCHOLARSHIPS are granted on the basis of academic achievement and financial need. To be considered, a *freshman* applicant must have a 3.30 secondary school grade point average. Scholastic ability must also be reflected in test scores from the Scholastic Aptitude Test (SAT), or the American College Test (ACT), or the Washington Pre-College Test (WPCT). *Transfer and continuing* students must have a 3.0 cumulative grade point average to be qualified for first-time or renewal awards. PLU is a sponsor of *National Merit Scholarships*. Students who earn semifinalist standing are encouraged to contact the Financial Aid Office for information concerning a PLU Merit Scholarship.

PRESIDENT'S SCHOLARSHIPS ranging from \$1,000 to \$1,200 annually are awarded to entering freshmen in recognition of *outstanding* academic achievement in high school and in anticipation of superior performance at PLU. To be a candidate, a student must have an exceptional high school grade average, usually 3.75 or higher, present high test scores, and receive an offer of admission by April 1. Use of a grade prediction equation to determine a predicted end of freshman year grade average is also a qualifying factor. *Financial need is not a determining factor and no application is required.* Usually forty (40) students are selected as President's Scholars without consideration of financial need.

ALUMNI MERIT AWARDS of \$1,000 to \$1,200 are given to exceptional students who are sons and daughters of PLU alumni/ae. To be considered, entering freshmen must have a cumulative high school

grade point average of 3.5 or higher. Non-freshmen and renewal candidates must have a minimum collegiate grade point average of 3.3 to be eligible. *Financial need is not a determining factor* and completion of a special application is recommended. Prospective freshmen must also be offered admission by April 1 to be considered.

FACULTY MERIT AWARDS of \$1,000 annually are granted to twenty-four (24) students who have completed 45 semester hours or more at PLU and are not receiving any other merit award. No separate application is required. Faculty will recommend students to a selection committee who will select recipients on the basis of scholastic achievement, special talents, and unusual service to the university.

PROVOST'S MERIT AWARDS ranging from \$1,000 to \$1,200 are granted to twenty (20) outstanding transfer students each year. To be considered a student must have a 3.6 grade point average in at least 45 semester hours of college level courses and receive an offer of admission by April 1. Preference will be given to students who will complete an associate degree at an accredited community college (or a comparable academic experience at an accredited four-year institution) before enrolling at PLU. A 3.30 grade point average earned at PLU is required for renewal. No application is necessary.

AIR FORCE ROTC SCHOLARSHIP recipients (4-year; 3-year, or 2-year) may attend Pacific Lutheran University. AFROTC classes are held at the Aerospace Studies Department on the University of Puget Sound campus, about 20 minutes driving time from the PLU campus.

TALENT AWARDS are granted to students with financial need who have exceptional ability in the fields of forensics, drama, art, music, or athletics. The candidate must make arrangements with the school or department concerned for an audition and/or a personal interview. In some cases a tape or film will be satisfactory. A recommendation from a faculty member must be on file before a student is considered for a Talent Award.

UNIVERSITY GRANTS are awarded in combination with loans and employment to students with financial need who do not qualify for scholarship assistance. *Minority Grants* are available for qualified minority students in addition to all other types of financial aid described. *Foreign Student Grants* are restricted to those foreign students who have provided their own resources for at least one year of attendance. Grants usually amount to less than one-third of the cost of attendance.

MINISTER'S DEPENDENT GRANTS are available to unmarried, dependent children of a *regularly ordained, active* minister or missionary of a Christian church. The minister's principal employment and primary source of income must be a result of church work. The minimum annual grant is \$200 but this may be increased to \$700 if the eligible student has a demonstrated financial need as determined from the Financial Aid Form. If a FAF is submitted no special MDG application is required. June 1 is the deadline for requesting this grant. Requests received thereafter will be honored only as budgeted funds permit.

ALUMNI DEPENDENT GRANTS of \$200 are given to full-time students whose parent(s) attended PLU (PLC) for two semesters or more. To be eligible the alumni dependent must be a full-time student (12 credit hours per semester) and complete an application in the Financial Aid Office. December 1 is the deadline for requesting this grant. Requests received thereafter will be honored only as budgeted funds permit.

GRANTS in the amount of \$50 per semester shall be given to each of two or more full-time students from the same family attending PLU simultaneously, provided that the main support for both is from parents and provided they have not received any other university grant or award. Married students are also eligible when both are full-time students. An application must be filed in the Financial Aid Office at registration or immediately thereafter. The grant will be credited after eligibility is established.

In addition to its own scholarship funds, the university has at its disposal the following restricted funds, generally awarded to those students who complete the regular application and who have finished their freshman year:

Aid Association for Lutherans Scholarships
 Allenmore Foundation Scholarship
 Alumni Scholarship Fund
 American Lutheran Church-North Pacific District Scholarship
 American Lutheran Church Scholarship and Grant Program for Minority Students
 Florence Spinner Anderson Memorial Scholarship
 Ruth Anerson Scholarship
 Associated Grocers Scholarship
 B. E. R. C. Minority Scholarship
 Binder Memorial Scholarship
 Jorunn Breiland Scholarship Fund
 Dr. and Mrs. W. B. Burns Fund
 Burzlaff Memorial Scholarship
 Henrietta Button Nursing Scholarship Fund
 Carl Dalk Memorial Scholarship Fund
 Cheney Foundation Education Scholarship
 Chevron Merit Awards
 Comerco Scholarship
 Irene ● Cresco Merit Award
 Ida A. Davis Fund
 Doolittle Memorial Scholarship
 Leif Erikson Scholarship



Faculty Memorial Scholarship Fund
 Faith Lutheran Church of Portland Scholarship Fund
 Henry Foss Scholarship (for Norwegian students)
 L. C. Foss Memorial Scholarship
 Haas Foundation
 Olaf Halvorsen Scholarship
 W. H. Hardtke Seminary Student Scholarship Fund
 Suzzan Ingram Memorial Scholarship Fund
 Jerry Irwin Scholarship
 Johnson/Larson Scholarship
 Rev. Karl Kilian Memorial Fund
 William Kilworth Foundation Scholarship Fund
 Melvin Klesono Memorial Scholarship
 Ebba Larson Nursing Scholarship
 Ludvig and Clara Larson Scholarship
 Louise and Guy Leessman Memorial Scholarship
 Mr. and Mrs. W. Hilding Lindberg Endowed Scholarship
 Lutheran Brotherhood Legal Reserve Life Insurance Co. Scholarship
 Joe Marchinek Memorial Scholarship Fund
 Mathematics Scholarship
 Lila Moe Scholarship
 Fred O. Muenschel and Associates-Shakey's Pizza Parlors Scholarship
 Mr. and Mrs. Gus. H. Nienin Memorial Scholarship
 Margaret Nistad Memorial Scholarship
 Roger Paetel Memorial Scholarship
 Blanche Pflaum Scholarship
 PLU Women's Club Scholarship
 Portland Area Alumni Scholarship
 Kathryn Reese Memorial Scholarship
 Dr. Walter and Joan Redman Schwindl Scholarship
 Stigueland Youth Scholarship (North Pacific District Luther League)
 Skinner Foundation Scholarship
 Smith Endowment Scholarship Fund
 Dora Stangeland Memorial Scholarship
 Edwin and Ida Tingelstad Memorial Scholarship
 Evelyn S. Torvond Scholarship
 Ellen Valle Memorial Scholarship
 Hopper Memorial
 Robert E. Olson Memorial
 Hedvig Arthur Memorial
 Donald A. Brunner Memorial
 Mark Salzman Memorial
 J. P. Carlstrom Scholarship
 Louis and Leona Lamp Scholarship
 Gordon Pearson Memorial
 Wade Hinderlie Scholarship Fund
 Washington State Automobile Dealers Scholarship
 Washington Congress of Parents, Teachers, and Students

GOVERNMENTAL GRANTS

THE PELL GRANT PROGRAM is a Federal program designed to provide the "foundation" for a financial aid package. It is intended for students with high financial need. When completing the Financial Aid Form (FAF) applicants should indicate that the information is to be used for determining their eligibility for the Pell Grant by checking the appropriate box. If the Student Aid Report (SAR) you receive indicates eligibility, all three copies should be sent to the Financial Aid Office.

SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS (SEOG) are available to students who have exceptional financial need. Grants range from \$200 to \$2,000 per year. The SEOG must be matched with at least an equivalent amount of other kinds of aid (grant, loan, or employment). Eligibility is determined by Federal guidelines.

WASHINGTON STATE NEED GRANTS are available to eligible residents of the State of Washington who attend PLU. These grants are intended for students with high need. On the basis of guidelines established by the Council on Post-Secondary Education, students with specified need as computed from the Financial Aid Form are submitted to the State for consideration. Present procedure does not require a separate application.

STUDENT EMPLOYMENT

There are employment opportunities on campus and in the community that can help students meet college expenses. Priority for placement is given to those students who have demonstrated financial need and have been awarded a work-study eligibility. Over 900 students work on campus each year. The university's annual student payroll exceeds \$1,000,000. The average on-campus job approximates ten hours per week, and produces around \$1,050 during an academic year.

All student placements for on-campus and off-campus jobs are handled by the Career Planning and Placement Office. Actual assignments for new students are made at the beginning of the school year and at other times as vacancies occur.

The Federal College Work-Study Program offers only on-campus employment. To participate, students must be eligible for work-study.

The State Work-Study Program offers only off-campus work opportunities with profit-making and non-profit employers. Positions must be related to students' academic interests. To participate, students must be eligible for work-study.

LOANS

Many students invest in their future by borrowing educational funds. Low interest, deferred loans make it possible to pay some of the cost of education at a later time. Loans are often included with gift assistance and work to form a financial aid package.

There are three major sources of loans at PLU:

NATIONAL DIRECT STUDENT LOAN (NDSL)—Eligibility is determined by the PLU Financial Aid Office from the Financial Aid Form and is based on need. Most loans average \$1,000 annually, but cannot exceed \$3,000 for the first two years of school, nor an aggregate of \$6,000 for an undergraduate degree. No interest accrues and no payments on principal are necessary until six months after a recipient ceases to be a half-time student enrolled in an eligible institution. Simple interest is 5% during the repayment period. Up to 100% cancellation is available for teaching the handicapped or in certain low income areas. Repayment may be deferred because of further full-time study or service in the armed forces, VISTA, or the Peace Corps. Exit interviews are required by the Business Office upon leaving PLU or transcripts, grades, and diploma are withheld.

NURSING STUDENT LOAN (NSL)—A federal loan program limited to students with need who are accepted for enrollment or are enrolled in the School of Nursing (usually not before the sophomore year). The NSL has provisions similar to the the NDSL. Up to \$2,500 is available, dependent on federal funding. Loans average \$500. Repayment begins one year after graduation. Partial or full cancellation is possible under certain conditions.

GUARANTEED STUDENT LOAN (GSL)—Under this program, students may borrow from banks, credit unions, and savings and loan associations. A separate application procedure is required and forms are available from the PLU Financial Aid Office.

The maximums which a student may borrow are:

Undergraduate.....	\$2,500
Graduate.....	\$5,000

Repayment of principal is deferred until six months after a recipient ceases to be a half-time student enrolled in an eligible institution. The interest rate is 8%; interest is paid by the Federal government while the recipient is attending school.

PLUS LOAN—This is a non-need based loan for independent students and parents of dependent undergraduate students. Payments are not deferred but begin within 60 days after the loan is disbursed. Not all states offer this loan. Out of state students or parents should check with their nearest college or state higher education authorities to determine if it is operational. If it is, an application must be obtained within the student's/parent's state of residence. PLU's Financial Aid Office has available only the Washington State version.

The current interest rate is 12% and the amount of the loan cannot exceed the student's cost of attendance minus other financial assistance (including a Guaranteed Student Loan). An independent student cannot have a Guaranteed Student Loan and a PLUS Loan at the same time.

If the state or lending institution of the student or parent does not participate in the PLUS program, it is possible to borrow through United Student Aid Funds (USAF). The maximum annual amount which a student or parent may borrow ranges between \$2,500 and 3,000.

Short term loans are available from various restricted PLU loan funds which include:

Alumni Association Loan Fund
 American Lutheran Church Women Loan Fund
 Anton Anderson Loan Fund
 John S. Baker Loan Fund
 J. P. Carlstrom Memorial Loan Fund
 Delta Kappa Gamma Student Loan Fund
 Lily C. Ekorn Fund
 Marie Huah Loan Fund
 Gerhard Kirkebo Memorial Loan Fund
 Jeanette Olson-Diana Paul-Miriam Stoa Memorial Student Loan Fund
 J. P. Pflueger Student Loan Fund
 O. J. Stuen Alumni Loan Fund
 O. A. Tingelstad Loan Fund
 Women's Club of Tacoma Revolving Loan Fund
 Verne Graham Loan Fund

VETERANS AFFAIRS AND VOCATIONAL REHABILITATION

Pacific Lutheran University has been approved by the State Approving Agency as one of the qualified institutions which veterans may attend and receive benefits. Veterans, widows, and children of deceased veterans who wish to inquire about their eligibility for benefits should contact the Regional Office of the Veterans Administration, Federal Building, 915 Second Avenue, Seattle, Washington 98174.

Students should gain admission to the university before making application for benefits. Students are encouraged to register at the university's Veterans Affairs Office before each term to insure continuous receipt of benefits.



Costs

TUITION

A prime concern of students, faculty/administration, and regents is holding down tuition and, hence, the cost of attending Pacific Lutheran University. With this in mind, the Board of Regents approved the administration's recommendation to adopt a **Cost Containment Plan (CCP)** for tuition. The CCP not only limits tuition growth in 1984-85, but—for students who fully avail themselves of it—actually **decreases** from previous levels both the total tuition cost of a baccalaureate degree as well as the pro-rated cost per credit hour in a given year.

For full-time students (those taking 10 or more hours in a regular semester), the CCP abandons the per credit hour charge system and substitutes a blanket fee which covers up to a maximum number of hours within each of the component terms of the academic calendar.

CCP Cost

STUDENT CLASSIFICATION

Hours***	1984-85 Seniors*		Graduate	Cont. Educ.**
	Under-graduate	& Nursing Students+ +		
1-9	\$185/cr. hr.	\$185/cr. hr.	\$185/cr. hr.	Various
10-15	\$2775	\$185/cr. hr.	\$185/cr. hr.	Tuition
16-Up	\$2775 +	\$2775 +	\$2775 +	Rates
	\$175/cr. hr. above 15	\$175/cr. hr. above 15	\$175/cr. hr. above 15	/cr. hr.

*32 hours or less to graduate as of beginning of Fall 1984 semester

**Continuing Education courses are not included in the CCP rate (billed separately)

***Audit (non-credit) courses will be considered regular hours covered by the CCP

+ These students not only accepted by the university, but also formally admitted to the School of Nursing

MULTIPLE TERM CREDIT (MTC)

Full-time students enrolled in Fall and/or Spring plus Interim may qualify for Multiple Term Credit.

Term	Rate	MTC	CCP Rate
Fall only	\$2775	NA	\$2775 (15 hr. max.)
Fall or Spring & Interim	\$3525	(\$200)	\$3325 (20 hr. max.)
Fall, Interim & Spring	\$6300	(\$350)	\$5950 (35 hr. max.)
Fall & Spring	\$5550	NA	\$5550 (15 hr. max. ea. sem.)
Interim only	\$ 750	NA	\$ 750 (5 hr. max.)

TERM LOAD FLEXIBILITY (TLF)

Term Load Flexibility (TLF) allows for any combination of regular hours during the academic year, up to 35, for a maximum charge of \$5950. Examples are:

#1	Fall	Interim	Spring
Credit Hours	13	5	17
Tuition	\$2775	\$750	\$2775
MTC Credit	-0-	(\$200)	(\$ 150)
Extra Hours	-0-	-0-	\$ 350
TLF Credit	-0-	-0-	(\$ 350)
Total: \$3950	= \$2775	+ \$550	+ \$2625

#2	Fall	Interim	Spring
Credit Hours	17	-0-	18
Tuition	\$2775	-0-	\$2775
MTC Credit	-0-	-0-	-0-
Extra Hours	\$ 350	-0-	\$ 525
TLF Credit	-0-	-0-	(\$ 475)
Total: \$5950	= \$3125	+ -0-	+ \$2825

SPECIAL FEES (1984-85 RATES)

A few specialized courses, e.g., physical education, art, and private music lessons, require the payment of a special course fee.

Credit by examination:

Departmental exam..... 25% of course tuition

Student Parking:

Year Permit..... No charge

Penalty for non-registration..... \$10.00

Student health and accident insurance (premium

varies by coverage) (24 hours, 12 month

coverage, optional)..... Varies

Private music lessons (per credit hour)..... \$90.00

ROOM AND BOARD—Double Occupancy

(1984-85)

Fall, Interim, and Spring	\$2,815
Fall and Spring	2,720
Fall and Interim	1,505
Fall only	1,410
Interim only	190
Interim and Spring	1,505
Spring only	1,410

The university requires that all single full-time (10 or more semester hours) students room and board on campus unless the student is living at home with parents or legal guardians, is 21 years of age or older during the current semester, or is of senior status (90 semester hours). All exceptions to this policy must be addressed to the Residential Life Office.

Fall Room & Board	\$1410	Fall Room & Board	\$1410
Interim Board Only	95	Not Here Interim	-0-
Spring Room & Board	1310	Spring Room & Board	1310
	\$2815		\$2820

The above room and board rates include three meals per day, Monday through Saturday, and brunch and dinner on Sunday. Meals are not provided during Thanksgiving, Christmas, and Easter vacations. The interim board cost will be charged only if a student is on campus during January.

Commuter students are encouraged to eat meals on campus at a semester rate of \$670, or \$237 for the five-day lunch plan. (Interim—\$95 or \$50.)

Single rooms are limited and cost an additional \$100 per semester. Students moving on campus for spring pay the fall room cost.

A limited amount of family student housing is available. The two-and three-bedroom units cost approximately \$150 per month. A damage deposit of \$100 must accompany a reservation for family student housing. Applications may be obtained from the Residential Life Office.

PAYMENTS

Mail payments with remittance (statement copy or coupon) to PLU, Box 1356, Tacoma, WA 98401, or deliver payments to the PLU Business Office in the Hauge Administration Building, Room 110.

Checks should be made payable to Pacific Lutheran University. The student's name and account number should be included on the check. VISA and MasterCard bank cards are accepted. Indicate card type, account number, and expiration date if transaction is done by mail. Please do not mail cash. A discount rate, which is periodically adjusted, will be charged against Canadian funds.



PAYMENT OPTIONS

1. Payment Before Term Begins
2. PLU Budget Plan
3. Semester Installation Plan

1. PAYMENT BEFORE TERM BEGINS

Early registrants will be sent a pre-billing of charges and credits. Early payments are encouraged, and those who pay early may qualify for LUTE BUCKS (coupons redeemable at the PLU Bookstore).

For students who register early, the total costs of the semester are due before classes begin. Those students who register after August 20th for the fall semester, after December 7th for the interim, and after January 14th for the spring semester must pay the full cost for the semester at the time of registration. Financial clearance (paid in full) is necessary for ID card validation. Registration is subject to cancellation if tuition and fees are not paid.

2. PLU BUDGET PLAN

This plan allows for paying selected educational expenses on a monthly installment basis **without interest**. Selected educational expenses are estimated for the entire academic year and paid in equal installments as follows:

- a. Full Year Budget Plan—May 10th through April 10th
- b. Half Year Budget Plan—May 10th through October 10th (summer and fall); November 10th through April 10th (interim and spring)

A Budget Plan Agreement can be obtained from the PLU Business Office and is not valid until signed and approved. The total amount of financial aid awarded (excluding expected earnings from Work Study and Washington State Need Grant) can be deducted in arriving at the monthly installments. If a student is a financial aid recipient, the amount of tuition estimated on the Budget Plan Agreement must correspond with the amount of tuition estimated by the Financial Aid Office. Actual class registration which results in lower tuition may require a reduction in financial aid offered.

Those applying for the monthly payment option after May will be charged a 2% per month late charge and must pay the back payments. If during the academic year actual costs vary from the original estimate, monthly payments will be revised upon notification of the Business Office. Monthly payments received after the five-day grace period will be assessed a 2% per month late charge. If a payment becomes delinquent for thirty (30) days, a student may be denied admission to classes, or the university may withhold grade reports, transcript of records, or diplomas.

3. SEMESTER INSTALLMENT PLAN (SIP)

The Semester Installment Plan requires a 25% minimum down payment. The balance remaining (plus finance charge**) is divided into three (3) monthly installments, due by the 15th of the month (Fall—October 15, November 15, December 15; or Spring—March 15, April 15, May 15). If the interim is to be included with spring semester, payments are due February 15, March 15, and April 15. If payment is received after the 20th of the month, a \$10.00 late payment charge will be assessed in addition to the regular finance charge.

In order to qualify for the Semester Installment Plan, all prior balances must be paid in full. Applications for the plan must be made by the tenth day of the semester, and the 25% minimum down payment must accompany the application. A larger down payment can be made and would reduce the finance charges and monthly payments.

Upon receipt of the Semester Installment Plan application with the down payment, a promissory note and payment coupons will be mailed to the address indicated on the application. The signed promissory note must be returned to the PLU Business Office.

**The finance charge is determined at the date the note is negotiated and is set at 4% above the average yield of the 26-week U.S. Treasury Bill.

ADVANCE PAYMENTS

New students pay a \$100.00 advance payment in order to finalize their offer of admission. For fall acceptance this is not refundable after May 1 (December 15 for interim; January 15 for spring semester).

All returning students who wish to reserve a room the following year or who are receiving financial aid must make a \$100.00 advance payment. This advance payment is not refundable after July 15.

Students will not be permitted to finalize registration as long as any bill remains unpaid.

RESTRICTIONS

The university reserves the right to withhold statements of honorable dismissal, grade reports, transcript of records, diplomas, or pre-registrations until all university bills have been paid. Under certain circumstances student pay checks may be applied to unpaid balances.

REFUNDS

If a student drops a single class or completely withdraws from the term during the first two weeks of the fall or spring semester, a full tuition refund will be given. The Advance Payment is not refunded. A 10% per day charge will be assessed for complete withdrawals during the third and fourth week. No refunds are available after the fourth week for complete withdrawals or after the second week of the term for dropping individual courses.

In the event of a withdrawal from interim during the first week, a full tuition refund will be given. No refund is available after the first week.

Residence hall and board refunds will adhere to the terms of the Residential Life Contract.

A pro-rata board refund will be made for necessary withdrawal from the university. Board refunds may be considered for meals missed due to working, but will not be made for any university trips, such as choir, band, orchestra, athletics, and so forth.

Notice of withdrawal must be made **in writing** to the registrar of Pacific Lutheran University, and received before the deadlines given above. Oral requests are not acceptable.



Student Life

The quality of life cultivated and fostered within the university is an essential component of the academic community. The environment produced is conducive to a life of vigorous and creative scholarship. It also recognizes that liberal education is for the total person and that a complementary relationship exists between students' intellectual development and the satisfaction of their other individual needs. Interaction with persons of differing life styles, application of classroom knowledge to personal goals and aspirations, and non-academic experiences are all invaluable and vital components of education at PLU. In a time when there is a need for meaningful community, the campus facilitates genuine relationships among members of the University from diverse religious, racial, and cultural backgrounds. All of the services and facilities provided are intended to complement the academic program. The services provided reflect changing student needs, and the opportunities for student participation include virtually all aspects of the university. Individual attention is given to every student concern including a variety of specific services outlined below.

CAMPUS MINISTRY

Pacific Lutheran University by its very nature is a place for the interaction between studies and the Christian faith. Opportunities for the mutual celebration of that faith on campus are rich and diverse.

Chapel worship is held Monday, Wednesday, and Friday mornings during each semester for all who wish to participate. The University Congregation meets in regular worship and celebrates the Lord's Supper each Sunday. Pastoral services of the university pastors are available to all students who desire them.

Several denominations and religious groups have organizations on campus, and there are numerous student-initiated Bible study and fellowship groups. The Campus Ministry Council, an elected student and faculty committee, coordinates these activities in a spirit of openness and mutual respect.

RESPONSIBILITIES OF COMMUNITY LIFE

In the close living situation in the campus community certain regulations are necessary, and the university admits students with the understanding that they will comply with them. All students are expected to respect the rights and integrity of others. Conduct which is detrimental to students, their colleagues, or the university, or which violates civil law, may be grounds for disciplinary sanctions or dismissal from the university. Specific regulations and guidelines are outlined in the *Student Handbook*, which is available through the Student Life Office for all students at the beginning of each year.

RESIDENTIAL LIFE

Residential living is an integral part of the educational process at PLU and the residence halls were constructed with that in mind. University policy reflects the commitment to the residential concept. *Unless exempted by the Residential Life Office, all students not living at home with parents, guardian, or spouse are required to live in a residence hall until achieving senior status or the age of 21 years.*

As a residential campus, Pacific Lutheran University offers students a valuable experience in community living. The university recognizes the importance of non-classroom activities in providing an education for the whole person. The aim of residential living is to help students grow personally, socially, culturally, and religiously.

Campus residence halls are small. They are organized into communities in which each individual counts as a person. New knowledge shared with friends in the residence halls takes on a very personal meaning. Men and women of many backgrounds and cultures live on campus; therefore, students in residence have a unique opportunity to broaden their cultural horizons.

The university cares about the quality of life on campus. The attractive and comfortable residence halls enrich the quality of life and enhance the learning process. The university offers students high-quality housing opportunities including student leadership experiences, formal and informal programs, and peer associations. The student governing bodies are strong and actively participate in improving the program.

A selection of modern, attractive halls, each with its own traditions and unique advantages, offer students the opportunity to establish a comfortable living pattern. All halls include informal lounges, study rooms, recreation areas, and common kitchen and laundry facilities.

Most of the halls are co-educational. Although they are housed in separate wings, men and women in co-ed halls share lounge and recreation facilities and common residence government, and participate jointly in all hall activities. All-men's and all-women's halls are reserved for those who desire this type of living experience.

Further information regarding residence halls can be obtained from the Residential Life Office.

In addition to housing for single students, the university maintains a limited number of apartments on campus for family student housing. Two and three-bedroom units are available. Application for these apartments can be made through the Office of Residential Life.

ACTIVITIES

The PLU *Student Handbook* enumerates over 50 academic and non-academic organizations, clubs, societies, and interest groups, which testifies to the diversity of campus extra-curricular life. Social action, religious, and political organizations; interest and sporting clubs; and service, professional, and academic societies are among the options from which to choose.

The arts are flourishing at Pacific Lutheran University. The Choir of the West, the Concert Band, the University Symphony Orchestra, a jazz ensemble, a renowned collegiate stage, two art galleries, and a liturgical dance ensemble provide generous opportunities for the performing student. Personal expression is emphasized in debate, student government, campus radio KPLU-FM, the university yearbook, and the weekly student newspaper.

Organized and individual physical activities are for everyone. Recreational and competitive programs include football, cross country, basketball, swimming, hiking, climbing, volleyball, tennis, golf, wrestling, paddleball, bowling, squash, handball, ping pong, baseball, softball, badminton, field hockey, track and field, water polo, skiing, and rowing. Athletics emphasize development of the individual rather than the search for athletic glory, yet the university is proud of its varsity championships in many sports.

ADULT STUDENT SERVICES

The Office for Adult Student Services provides practical assistance to students over 25 and fills the gap for students whose age, multiple commitments, and distance from the campus separate them from the mainstream of university life. Information for greater accessibility to student support services such as personal and career counseling, orientation, special facilities, and health care programs can be obtained from the office.

PROGRAM FOR COMMUTING STUDENTS

Every effort is made to assure commuting students enjoy the same well-rounded university experience as those in residence. First-year students who will be at home are invited to participate in a special program which deals with enriching college for them. Off-campus students are invited and encouraged to participate in the varied and frequent activities programs planned for all students.

ENVIRONS

The university's geographical setting affords the student a wide variety of both recreational and cultural entertainment options.

Recreationally, the grandeur of the Pacific Northwest country encourages participation in hiking, camping, climbing, skiing, boating, and swimming.

The most conspicuous natural monument in the area is Mt. Rainier. In addition to Rainier, the distinctive realms of the Cascade and Olympic mountain ranges and forests of Douglas Fir complete one of the most naturally tranquil environments in the United States.

Students can also enjoy the aesthetic offerings of nearby Seattle and Tacoma. These city centers host a variety of performing and recording arts and provide dozens of galleries and museums as well as unique shopping and dining experiences.

STUDENT SERVICES

The Health Service retains the full-time services of a physician's assistant and a registered nurse, and the part-time services of a nurse practitioner and another registered nurse. A backup physician is available for referrals and consultations. Services available include outpatient health care, alcohol counseling/referral, laboratory tests, pregnancy/contraception counseling, and health education. All students are entitled to services from the Health Service.



Health and Accident Insurance is offered by the university on a *voluntary* basis. The group Accident and Sickness Medical Expense Plan provides coverage 24 hours a day, 12 months a year, anywhere in the world. This plan is available at fall, interim, or spring registration only. A brochure outlining the program is available from the Student Life Office. All foreign students *must* take out the school insurance.

The **Counseling and Testing Center** assists students in coping with developmental problems. Trained and experienced counselors, including a staff psychiatrist, offer group and individual counseling. A variety of psychological tests and interest inventories are available to assist students with career planning, educational adjustment, and personal problems.

The **Minority Affairs Office** coordinates a special program which seeks to provide continually for the academic and social needs of minority students. Supportive services include admissions assistance, scholarship and financial aid assistance, counseling, book fund, and convocation programs.

The **Foreign Student Office** provides for the various needs of foreign students. Support services include orientation to the U.S. and PLU, the Host Family Program, a liaison with immigration offices, counseling, and advising the International Student Organization.

Food Service, owned and operated by Pacific Lutheran University, is available to all students, faculty, staff, and their guests. Students living on campus are required to take their meals in one of two cafeterias. No deductions are made for students eating fewer than three meals per day unless a conflict exists due to work. In case of a conflict, a student must contact the Food Service Office in the University Center to obtain approval for a deduction.

Students with special diets, approved in writing from a doctor, can in most cases be accommodated by contacting the dietitian. This service is provided at no extra cost.

Students living off-campus are encouraged to select one of the two meal plans offered. One plan provides 20 meals per week, 3 meals per day Monday through Saturday and 2 meals on Sunday. The other plan provides lunch only Monday through Friday. Students may sign up for either plan at the Food Service Office.

The Food Service operates two coffee shops. One is located on lower campus in Columbia Center and the other is located in the University Center. A discounted meal card is available at the Business Office and is designed to be used in either coffee shop by students.

Visitors may eat in any of the facilities.

Only the coffee shop in Columbia Center is open during vacation periods.

Scheduling Services are maintained in the University Center. All university activities must be scheduled through this office. Scheduling student activities is a joint responsibility of the University Center director and the University Scheduling Committee.

Student Government is an integral part of student activities at PLU. The associated students elect a senate to govern their affairs and oversee an extensive committee program that involves hundreds of students in actively planning programs and representing student opinion on various university boards and committees.

PLU Bookstore is owned and operated by Pacific Lutheran University for the benefit of students, faculty, and staff. The bookstore sells the textbooks and supplies that are required or suggested by faculty members for their courses. Additional reading matter, supplies, gift items, greeting cards, clothing, film processing, toiletries, and other convenient items are also available.

The **Career Planning and Placement Office** seeks to fulfill the PLU commitment to a developing program of career and life planning. Students are assisted during their education in making meaningful and realistic decisions about their life and work both during their university education and after graduation through conferences with professional staff, workshops and seminars, classroom and dorm presentations, and materials housed in the Career Resource Center.

STUDENT EMPLOYMENT

The Career Planning and Placement Office coordinates all student part-time employment (including College Work-Study and off-campus Work-Study jobs), and lists part-time and full-time employment opportunities, both on and off campus. The office also lists summer jobs, local and nation-wide. The office staff assists students and alumni in developing job search techniques (also faculty and staff by special arrangement). The office coordinates an off-campus interviewing schedule of recruiters from industry, business, government, and graduate schools.

GRIEVANCE PROCEDURES

Policies and procedures at the university are intended to maintain an orderly educational environment conducive to student learning and development. In order to fulfill institutional responsibility and at the same time follow procedures that are fair, consistent, and protective of each person's rights, appropriate grievance procedures have been established. If a student has reason to believe that an academic or administrative action is unjust, capricious, or discriminatory, these procedures are available for the student to seek redress.

In situations involving alleged grievances against faculty or academic administrators, the procedures of the "Academic Grievance Procedure" shall be followed. The grievance officer to contact is the director of the academic advising and assistance center.

In situations involving alleged grievances against administrative staff or any other non-faculty university employees, the procedures of the "Student Administrative Grievance Procedure" shall be followed. The grievance officer to contact is the assistant dean for student life.

Copies of each grievance procedure are available for review at the office of the respective grievance officers.



Advising

The university expects that all students, at one time or another, will need assistance in planning academic programs consistent with their needs and goals. To help students make their initial adjustment to the academic load at PLU and to provide occasional counsel throughout their academic careers, the university has established a network of faculty advisers and an Academic Advising and Assistance Center.

FACULTY ADVISERS

All students in degree programs have faculty advisers whose overall responsibility is to guide academic progress. In their work with individual students, advisers have the assistance of personnel in a number of student services offices: the Academic Advising and Assistance Center, the Career Planning and Placement Office, Counseling and Health Services, the Minority Affairs Office, the Campus Ministry, the foreign student adviser, and residence hall directors and resident assistants.

General Advisers: At the time of entry, each student is assigned a general adviser on the basis of matching student and adviser interests. Students who wish to explore the general curriculum before deciding on an interest area are assigned to *exploratory* advisers. Those who have definite interest areas are assigned to *interest* advisers.

During the first semester, an advising file for each student is sent to the adviser, and a *Gold Book*, the student's official record of academic progress, is issued to the student.

Major Advisers: Upon formal declaration of a major, students are assigned major advisers to replace their general advisers. Major advisers guide students' progress toward their chosen

degree goals.

Since their academic needs and interests may shift or change during four years of college, students are allowed to change advisers as may be appropriate or necessary, using a simple adviser change form. Students and advisers are expected to meet regularly, though the actual number of meetings will vary according to individual needs. Minimally, three meetings are required during the freshman year and one each year thereafter, though all students are encouraged to meet with their advisers as often as seems necessary or useful.

ACADEMIC ADVISING AND ASSISTANCE CENTER

The Academic Advising and Assistance Center provides a number of academic resources for students:

1. *tutoring* by trained upper-division skills counselors is available for most lower-division courses;
2. *study skills* are taught either on a one-to-one basis or in non-credit mini-courses;
3. *group help sessions* in several subject areas are scheduled on a daily or weekly basis each semester;
4. *academic counseling* by AAAC administrators and skill counselors assures responsive and personal assistance with academic problems.

Students may also find up-to-date information on PLU policies, procedures, and programs in the AAAC, located on the second floor of Mortvedt Library. The office is open Monday through Thursday from 9:00 a.m. until 10:00 p.m., Friday from 9:00 a.m. until 5:00 p.m., and Sunday from 2:00 until 10:00 p.m.



Academic Structure

COLLEGE OF ARTS AND SCIENCES

Division of Humanities

English
Languages
Philosophy
Religion

Division of Natural Sciences

Biology
Chemistry
Earth Sciences
Mathematics and Computer Science
Physics and Engineering

Division of Social Sciences

Anthropology
Economics
History
Political Science
Psychology
Social Work and Marriage and Family Therapy
Sociology

SCHOOL OF THE ARTS

Art
Communication Arts
Music

SCHOOL OF BUSINESS ADMINISTRATION

SCHOOL OF EDUCATION

SCHOOL OF NURSING

SCHOOL OF PHYSICAL EDUCATION

DIVISION OF GRADUATE STUDIES

DEGREES OFFERED

Bachelor's Degrees

Bachelor of Arts
Bachelor of Science
Bachelor of Business Administration
Bachelor of Arts in Education
Bachelor of Fine Arts
Bachelor of Music
Bachelor of Science in Nursing

Master's Degrees

Master of Arts in Computer Applications
Master of Arts in Education
Master of Arts in Social Sciences
Master of Business Administration
Master of Music
Master of Public Administration
Master of Science in Computer Science

MAJORS AVAILABLE

BACHELOR OF ARTS (B.A.)

Anthropology
Art
Biology
Chemistry
Classics
Communication Arts
(Broadcasting, Interpersonal Communication, Journalism,
Theater)
Computer Science
Earth Sciences
Economics
English
French
German
History
Legal Studies
Mathematics
Music
Norwegian
Philosophy
Physical Education/Recreation
(Administration, Programming, and Therapeutic
Concentrations)
Physics
Political Science
Psychology
Religion
Scandinavian Area Studies
Social Work
Sociology
Spanish

BACHELOR OF SCIENCE (B.S.)

Biology
Chemistry
Computer Science
Earth Sciences (Geology Specialty)
Engineering Physics
Engineering Science (3-2)
Mathematics
Physical Education
(Exercise Science and Pre-Therapy
Concentrations)
Physics

BACHELOR OF ARTS IN EDUCATION (B.A.E.)

Concentrations in:

Art
Biology
Business Education
Chemistry
Communication Arts
Earth Sciences
Economics
English
French
General Science
German
History
Language Arts
Mathematics
Music
Physical Education
Physics
Political Science
Scandinavian Studies
Social Science
Sociology
Spanish
Special Education

BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.)

Concentrations in:

Accounting
Finance
Human Resource Management
Management Information Systems
Marketing
Operations Management

BACHELOR OF FINE ARTS (B.F.A.)

Art
Communication Arts
(Broadcasting, Theater)

BACHELOR OF MUSIC (B.M.)

Piano Performance
Organ Performance
Vocal Performance
Instrumental Performance
Theory and Composition
Commercial Music
Church Music

BACHELOR OF SCIENCE IN NURSING (B.S.N.)

Nursing

COMPLEMENTARY MAJOR

Global Studies

MINORS AVAILABLE

Anthropology
Biology
Business Administration
Chemistry
Communication Arts
Interpersonal Communication
Theater
Dance
Computer Science
Earth Sciences
Economics
Education
Reading
Learning Resource Specialist
Special Education
Electrical Engineering
English
Literature
Publishing and Printing Arts
Writing
French
German
Global Studies
Greek
History
Information Science
Latin
Legal Studies
Mathematics
Norwegian
Philosophy
Physical Education
Aquatics
Coaching
Dance
Health Education
Physics
Political Science
Psychology
Public Affairs
Religion
Sociology
Spanish
Statistics



Academic Procedures

REGISTRATION

The normal course load for full-time students is 13 to 17 hours per semester, including physical education. A normal student load during the interim is four hours with a maximum of five hours. The minimum semester load for a full-time student is ten hours.

Only a student with a "B" (3.00) average or higher may register for more than 17 hours per semester without the consent of the provost. A student engaged in much outside work for self-support may be restricted to a reduced academic load.

In the spring semester, students who plan to return in the fall are encouraged to pre-register. Students must register for each new semester on the designated days and are not officially enrolled until their registration has been cleared by the Business Office and their Place of Residence form has been processed.

COURSE NUMBERINGS

100-200 Lower Division Courses: Open to freshmen and sophomores* unless otherwise restricted.

300-320 Interim Courses

321-499 Upper Division Courses: Generally open to juniors and seniors unless otherwise specified. Also open to graduate students, and may be considered part of a graduate program provided they are not specific requirements in preparation for graduate study.

500-599 Graduate Courses: Normally open to graduate students only. Upper division students may be permitted to enroll with the permission of the chair or dean of the academic unit offering the course if all prerequisites have been met and the student has an above-average academic record.

*Upon approval of their adviser and course instructors, lower division students may be assigned to upper division courses if prerequisites have been met.

COURSE OFFERINGS

Most listed courses are offered every year. A system of alternating upper division courses is practiced in some departments, thereby assuring a broader curriculum. The university reserves the right to modify specific course requirements, to discontinue classes in which the registration is regarded as insufficient, and to withdraw courses.

EXPLANATION OF SYMBOLS

Most courses have the value of 4 semester hours. Parenthetical numbers immediately after the course descriptions indicate the semester hour credit given.

Other symbols are explained as follows:

- I — Course offered first semester
- II — Course offered second semester
- I,II — Course offered first and second semester in sequence
- III — Course offered either semester
- S — Course offered in the summer
- a/y — Course offered in alternate years
- a/s — Course offered in alternate summers
- G — Course may be used in graduate programs

EARLY REGISTRATION PROGRAM FOR FRESHMEN

Well in advance of arrival on campus for the first semester, all accepted freshmen are sent registration materials. Most students have the opportunity to work personally with an adviser as they plan their schedules. A limited number of students register by mail, and their course selections are verified by a counselor.

Early registration for new freshmen occurs during June or January, depending on whether students begin in the fall or spring semester. Early registration is coordinated by the Office of Admissions.

COURSE SELECTIONS FOR FRESHMEN

Students should be thoroughly acquainted with all registration materials, including the current catalog and special information sent by the Admissions Office. It is important also to study the requirements of all academic programs in which one may eventually declare a major.

First semester freshmen are advised to plan a class schedule that does not exceed 16 credit hours. A normal first semester schedule will include three courses of 4 credit hours each, plus one or two of the following: physical education activity course (1 credit hour), music ensemble (1 credit hour), or a choice from among several 2 credit hour courses. (NOTE: Unless otherwise stated in the catalog or class schedule, most courses are valued at 4 credit hours.)

In order to insure appropriate academic progress, freshmen should plan to take an interim course in January and to complete a total of 32-35 semester hours during their first year. The following will illustrate several first-year credit hour loads:

	Fall	Interim	Spring	TOTAL
(1)	13	4	15	32
(2)	14	5	14	33
(3)	15	4	15	34
(4)	15	5	15	35

The number of credit hours taken may vary from year to year, usually within a range of 30 to 34. However, in order to complete the 128 hours required for graduation within four years, an average of 32 credit hours a year is necessary.

1. *PLU does not have particular courses which are required of all freshmen.* General university requirements, including a core curriculum (Core I or Core II), must be completed before graduation. The English writing requirement must be fulfilled before the senior year.
2. *Students are responsible for selecting their courses.* Counselors and faculty advisers are always available to assist with planning and to make suggestions.
3. *Students who are sure of their major should be careful to include those courses which insure completion of that major within four years.* Some departments or schools have prerequisite courses which must be taken before entering upon the major program itself.
4. *Students who are undecided about their major course of study should take the opportunity to explore options.* A good way to begin is to take some courses that meet general university or core requirements while selecting several others for exploration of special interests.

CHANGES IN REGISTRATION

Students may add or drop a class with full refund during the first two weeks after a class has begun. Necessary forms are available at the Registrar's Office.

Students may officially withdraw from a class after the first two weeks by obtaining the instructor's signature on the change form. The grade of W will appear on a student's grade report and transcript.

Students may also completely withdraw for medical reasons. Written evidence from a physician must support a medical withdrawal. The grade of WM will appear on a student's grade report and transcript.

An unofficial withdrawal from a course will be recorded as E. No student may withdraw during final examination week. In courses that are completed before the normal ending date of a term, no student may withdraw after the final examination has been administered.



WITHDRAWAL FROM THE TERM

Students wishing to withdraw from the term must obtain a withdrawal form from the Office of the Registrar. IT IS ALWAYS TO THE STUDENT'S ADVANTAGE TO WITHDRAW OFFICIALLY. Students withdrawing for a specified period of time (for example, one semester to one year) may obtain a leave of absence form. Students are entitled to honorable dismissal from the university if their record of conduct is satisfactory and if all financial obligations have been satisfied.

THE GRADING SYSTEM

Students are graded according to the following designations:

- A+ = 4.00 grade points per hour, credit given
- A = 4.00 grade points per hour, credit given
- A- = 3.67 grade points per hour, credit given
- B+ = 3.33 grade points per hour, credit given
- B = 3.00 grade points per hour, credit given
- B- = 2.67 grade points per hour, credit given
- C+ = 2.33 grade points per hour, credit given
- C = 2.00 grade points per hour, credit given
- C- = 1.67 grade points per hour, credit given
- D+ = 1.33 grade points per hour, credit given
- D = 1.00 grade point per hour, credit given
- D- = 0.67 grade point per hour, credit given
- E = 0.00 grade points per hour, no credit given.

The grades listed below are not used in calculating grade point averages. No grade points are earned under these designations.

- H — credit given (Honors); used only for courses unique to interim
- P — credit given (Passing)
- F — no credit given (Failure)*
- I — no credit given (Incomplete)
- IP — no credit given (In Progress; applicable only to certain courses whose work extends beyond a regular term)
- AU — no credit given (Audit)
- W — no credit given (Withdrawal)
- WM — no credit given (Withdrawal/Medical)

*A failure in a 300-320 interim course is not recorded on the transcript nor is the registration recorded.

Incomplete (I) grades indicate that students have been unable to complete their work because of circumstances beyond their control. To receive credit an Incomplete must be converted to a passing grade WITHIN THE FIRST SIX WEEKS OF THE FOLLOWING SEMESTER. Incomplete grades which are not converted by removal are changed to the grade indicated by the instructor when the Incomplete is submitted.

Medical Withdrawal (WM) is given when a course is not completed due to medical cause. The WM does not affect the grade point average.

In Progress (IP) signifies progress in a course which normally runs more than one semester to completion. In Progress carries no credit until replaced by a permanent grade.

Any course may be repeated by an undergraduate student. The higher of the two grades earned is used in computing the cumulative grade point average, but credit toward graduation is allowed only once.

Registrar's notations:

- NG = No grade submitted by instructor
- EW = Unofficial withdrawal, recorded by the registrar (equivalent to an E in calculation of the grade point average)

INTERIM GRADING SYSTEM

The instructor of a 300-320 interim course will indicate in the catalog description which of two grading systems will be used:

1. Honors (H)—for exceptional work; Pass (P); Fail, no credit—the registration will not be recorded. (H and P do not affect the grade point average.)
2. The regular letter grades: A, B, C, D, E. (Such grades contribute to the grade point average.) Students in a "regular letter-grade" course may use one of their four pass-fail options.

PASS-FAIL OPTION FOR UNDERGRADUATE STUDENTS

The pass-fail option permits students to explore subject areas outside their known abilities and to add a broader range of courses without being forced to compete with majors who are specializing in those areas of study.

1. The pass-fail option is limited to a total of four courses (16 hours) and to no more than two courses (8 hours) per academic year.
2. A student may exercise the pass-fail option in no more than two courses (8 hours) taken to fulfill general university or core requirements and the foreign language requirement of the College of Arts and Sciences. Other courses required for graduation in a degree program may not be taken under this option except for a first course that has been taken before a declaration of a major.

3. In courses taken under the pass-fail option, only A+ through C- grades shall be regarded as "pass," whereas D+ through E grades shall be regarded as "fail." Pass-fail grades do not alter the grade point average; but credits earned count toward graduation.
4. The pass-fail option agreement MUST be filed with the instructor NO LATER than eight weeks after the beginning of the semester.
5. Pass-fail students are responsible for all course work and examinations.

EXCLUSIVE PASS-FAIL COURSES

Departments or schools may offer courses in which only pass-fail grades are given. These courses should pursue goals primarily concerned with appreciations, value commitments, creative achievements, or the like. Decisions to offer exclusive pass-fail courses are reported to the provost and this fact is made known to students before they register for these courses.

Exclusive pass-fail courses may not be used to meet major or university requirements unless they have been approved as such by the faculty. Taking exclusive pass-fail courses in no way affects the student's personal pass-fail option.

CLASS ATTENDANCE

The university assumes that all registered students have freely accepted personal responsibility for regular class attendance. Course grades reflect the quality of students' academic performance as a whole, which normally includes regular participation in the total class experience and is evaluated accordingly. Absences may lead to a reduction of a student's final grade. In the event of unavoidable absence, students are encouraged as a matter of courtesy, as well as in their own best interest, to inform the instructor. Assignment of make-up work, if any, is at the discretion of the instructor.

ACADEMIC HONESTY

Both the value and the success of any academic activity, as well as of the entire academic enterprise, have depended for centuries on the fundamental principle of absolute honesty. The university, therefore, expects all its faculty and students to honor this principle scrupulously.

Since academic dishonesty is a serious breach of the universally recognized code of academic ethics, it is every faculty member's obligation to impose appropriate sanctions for any demonstrable instance of such misconduct on the part of a student.

ACADEMIC PROBATION

Warning slips may be given to any students who are doing "D" or "E" work at the end of the sixth week.

Students shall receive an academic warning if they fail to keep their current grade point average (immediately preceding semester) at or above 2.00. Students shall be placed on academic probation with transcript notation if two consecutive terms are below 2.00.

Students are placed on academic probation with transcript notation if they fail to keep their grade point average (cumulatively) at or above 2.00. Students receive official notice of such action. Probationary students may be advised to reduce their academic or extra-curricular activities or both.

The enrollment of a student on probation who fails to earn a cumulative average of 2.00 by the end of a probationary semester is terminated. A terminated student may apply for reinstatement by submitting a letter of petition to the Registrar's Office and securing a faculty sponsor. The petition and sponsorship letters are submitted to the Faculty Committee on Admission and Retention of Students for action.

A student whose petition for reinstatement has been denied may apply for readmission after the expiration of one semester unless informed otherwise.

ELIGIBILITY FOR STUDENT ACTIVITIES

Any regularly enrolled, full-time student (ten hours) is eligible for participation in university activities. Limitations on a student's activities based upon academic performance may be set by individual schools, departments, or organizations. A student on academic probation is not eligible for interscholastic competition and may also be advised to curtail participation in extra-curricular activities.



CLASSIFICATION OF STUDENTS

Freshmen: students who have met entrance requirements.

Sophomores: students who have satisfactorily completed 30 hours.

Juniors: regular students who have fulfilled lower division requirements and have satisfactorily completed 60 hours.

Seniors: regular students who have satisfactorily completed 90 hours.

Graduates: students who have met entrance requirements and have been accepted into the Division of Graduate Studies.

Non-Degree Undergraduates: undergraduate students who are attending part-time but are not officially admitted to a degree program.

Non-Degree Graduates: graduate students who are attending part-time but are not officially admitted to a degree program.

HONORS

Honors at Entrance: These honors are conferred at Opening Convocation on the most highly qualified entering freshmen. Certificates are mailed in early May to high schools for presentation to recipients. The granting of Honors at Entrance recognizes outstanding high school achievement and anticipates superior performance at the university level. These awards have no monetary value.

Emma Storaasli Johnson Award: Established in memory of her mother by Mrs. Louise Randall of Portland, Oregon, this award is given annually at the Opening Convocation to the student in the previous year's freshman class who achieved the highest grade point average while carrying the most credit hours.

Graduation Honors: Degrees with honors of *cum laude*, *magna cum laude*, and *summa cum laude* are granted. A student must earn an average of 3.40 for *cum laude*, 3.70 for *magna cum laude*, and 3.90 for *summa cum laude*. Physical education activities are not included in the determining of honors.

Honor Societies: Election to the Arete Society is a special recognition of a student's commitment to the liberal arts together with a record of high achievement in relevant course work. This academic honors society was organized in 1969 by Phi Beta Kappa members of the faculty. The society's fundamental purpose is to encourage and recognize excellent scholarship in the liberal arts. Elections for the society take place each spring. Both juniors and seniors are eligible for election, although the qualifications for election as a junior are more stringent. The faculty fellows of the society conduct the election after careful review of academic transcripts according to the following criteria. Students must:

- attain a high grade point average (for seniors, normally above 3.70; for juniors, normally above 3.90);
- complete 110 credit hours in liberal studies;
- demonstrate the equivalent of two years of college work in foreign language; and
- complete one year of college mathematics (including statistics or computer science) or have taken an equivalent amount of high school math and college science.

To be eligible for election, students must have completed a minimum of three semesters in residence at the university.

The university has chapters of a number of national honor societies on campus, including the following:

- Alpha Psi Omega (Drama)
- Beta Gamma Sigma (Business Administration)
- Mu Phi Epsilon (Music)
- Pi Kappa Delta (Forensics)

Undergraduate Fellowships: A limited number of Undergraduate Fellowships are awarded annually to outstanding senior students with a view to encouraging recipients to consider college teaching as a career. An undergraduate fellow is given a variety of opportunities to sample the professional life and work of a faculty member in his or her major discipline. A tuition credit accompanies the appointment.

Individualized Major for Special Honors: Supervised by a faculty committee, this program offers junior and senior students (with a grade point average of 3.30 or above) the opportunity to develop and complete a personally-designed, interdisciplinary, liberal arts major. Approval of a faculty sponsor and the Faculty Honors Council are required. The plan of study must include a clear topical rationale, an integrating final project, and significant work beyond regular courses, e.g., comprehensive examinations, independent study projects, interdisciplinary senior thesis. Successful completion of an approved study plan warrants the B.A. degree with Special Honors.

CREDIT BY EXAMINATION

Students are permitted, within limits, to obtain credit by examination in lieu of regular enrollment and class attendance. No more than 30 semester hours (7 courses) may be counted toward graduation, whether from the College Level Examination Program or any other examination. Exceptions to this rule for certain groups of students or programs may be made, subject to recommendation by the Educational Policies Committee and approval by the faculty. Credit by examination is open to formally admitted, regular status students only and does not count toward the residency requirement for graduation.

Arrangements for departmental credit examinations must be made by students with respective departmental chairs or deans. Evidence of approval and of payment of the fee should be presented by a student to the instructor who administers the examination.

The various schools, divisions, and departments determine the specific CLEP examinations which may fulfill requirements for majors, programs, or general university requirements in their respective academic areas. These examinations are subject to recommendations by the Educational Policies Committee and approval by the faculty.

The minimum passing level for CLEP examinations taken at Pacific Lutheran University is the fiftieth percentile.

CLEP credits granted by other universities, colleges, and community colleges, which are earned before entrance, are honored by Pacific Lutheran University. The application of those credits toward majors, programs, and general university requirements is consistent with school, divisional, and department policies and standards.

The university does not grant credit for college level GED tests.

INFORMAL STUDY

To encourage liberal learning of all kinds, over and beyond enrollment in courses leading toward formal degrees, the university offers a variety of opportunities for informal study:

Guest of University Status: Teachers and officials of other institutions, visiting scholars and artists, and other professional persons who wish to use university facilities for independent study may apply to the provost for cards designating them as Guests of the University. Such persons, in their use of facilities, will defer to the needs of students and faculty members.

Auditing Courses: To audit a course is to enroll, with the permission of the instructor, on a non-credit basis. An auditor is encouraged to participate fully in class activities but is not held accountable for examinations or other written work and does not receive a grade. If the instructor approves, the course may be entered upon the transcript as "Audit." With the approval of the instructor or the department, the student may gain credit for an audited course by passing an examination set by the instructor or the department. The fee for such examination is the difference between the auditing fee and the tuition the student would pay for the course.

Visiting Classes: Members of the academic community are encouraged to visit classes which interest them. No fee is charged for the privilege. Because regularly enrolled students must be given first consideration, persons desiring to visit classes are required to ask permission of the instructor. Visitors are guests of the classes and must conduct themselves accordingly.

GRADUATION

Students expecting to fulfill degree requirements WITHIN THE ACADEMIC YEAR (including August) are required to file application for graduation with the Office of the Registrar by October 1.

There are four degree-completion dates (end of fall semester, interim, spring semester, and second summer session). Degrees are formally conferred at December, May, and August commencements. Statements of completion are issued upon request to students who qualify for graduation at the end of the interim. The actual date of graduation will be recorded on the permanent records.

Students who plan to transfer back to Pacific Lutheran University for a degree (math, physics, engineering programs) must apply for graduation before or during the first semester of their junior year so that deficiencies may be met before they leave campus.

Attendance at commencement exercises is expected unless the candidate is excused by the provost.

SECOND BACCALAUREATE DEGREE

A student may be awarded two different bachelor's degrees simultaneously, provided that at least 28 additional hours are earned for the second degree. A total of 156 acceptable hours are required for two simultaneous baccalaureate degrees.

GENERAL UNIVERSITY REQUIREMENTS

The university is committed, in principle as well as historically, to providing a strong liberal arts base for all its baccalaureate degree programs. Accordingly, in addition to fulfilling certain specified requirements, all undergraduate students must satisfactorily complete a core curriculum.

SPECIFIED REQUIREMENTS

- 1. WRITING (4 hours):** English 101 or an equivalent prose writing course. Students should fulfill this requirement early, preferably in their first or second semester.
- 2. PHYSICAL EDUCATION (4 hours):** Four 1-hour activity courses, including PE 100. One hour of credit may be earned through approved sports participation. All activities are graded on the basis of A, Pass, or Fail.
- 3. INTERIM (8 hours):** Only courses numbered 300-320 satisfy this requirement. Junior and senior transfer students need to complete only 4 hours from 300-320 interim courses.
- 4. The completion of a minimum of 128 semester hours with a grade point average of 2.00 (2.50 in the Schools of Business Administration and Education).**
- 5. The completion of a minimum of 40 semester hours from courses numbered 321 or above. At least 20 of the minimum 40 semester hours of upper division work must be taken at PLU.**

- 6. The completion of 32 of the final 38 semester hours in residence at PLU during the senior year. (Special programs such as 3-1 and 3-2 are excluded.)**
- 7. The completion of a major as detailed by each school or department. At least 8 semester hours must be taken in residence.**
- 8. The completion of all courses counted toward a major or a minor with grades of C- or higher and with a cumulative grade point average of 2.0 or higher in those courses. Departments, divisions, or schools may set higher grade requirements.**

LIMITATIONS—ALL BACCALAUREATE DEGREES

- 1. Not more than 40 hours earned in one department may be applied to the B.A. or B.S. degree. Interim courses are excepted.**
- 2. Non-music majors may count toward graduation requirements not more than 8 semester hours in music ensembles.**
- 3. A maximum of 24 hours in accredited correspondence or extension studies may be credited toward degree requirements, contingent on approval by the registrar.**
- 4. A maximum of 64 hours will be accepted by transfer from an accredited community college.**

FOREIGN LANGUAGE REQUIREMENT

All candidates for B.A. or B.S. degrees must complete one of three options involving a foreign language or specified alternative. See under College of Arts and Sciences.



CORE CURRICULUM: ALTERNATIVES

CORE I (DISTRIBUTIVE CORE)

ARTS/LITERATURE (8 hours)—4 hours from each line:

- 1. Art, Music, or Communication Arts—Any course from Art or Music except those in teaching methods; any of the following in Communication Arts: 151, 162, 241, 250, 359, 363, 364, 458, 459.**
- 2. Literature —Any literature course from English or Languages. (English courses in writing, language, and publishing do not fulfill this requirement.)**

NATURAL SCIENCES/MATHEMATICS (8 hours)—4 hours from each of two lines:

- 1. Chemistry, Physics, Engineering, and Natural Sciences.**
- 2. Biology, Earth Sciences (except 101), and Natural Sciences.**
- 3. Mathematics (except 101) and Computer Science.**

PHILOSOPHY (4 hours)—Any Philosophy course except 100, 121, and 233. (However, 226, 325, 326, 328, and 385 count toward fulfillment of this requirement only when paired with 225; 341, 342, and 343 count only when taken in addition to 225 or 233.)

RELIGIOUS STUDIES (8 hours)—4 hours from each of two lines:

- 1. Biblical Studies—Any of the following: 241, 341, 342, 343.**
- 2. Christian Thought, History, and Experience—Any of the following: 131, 251, 351, 353, 371, 372, 373, 375, 381, 382, 383, 391, 392, 393, 451, and 485.**
- 3. Integrative and Comparative Religious Studies—Any of the following: 261, 262, 361, 362, 363, 367, 380, 480, 490, and 493. (Additional courses that relate religion to other topics or disciplines and are approved to meet this requirement will be listed in the time schedule.)**

Junior and senior transfer students need to complete only 4 hours (one course from lines 1 or 2).

SOCIAL SCIENCES (8 hours)—4 hours from each line:

- 1. Anthropology (except 221), History, and Political Science.**
- 2. Economics, Psychology (except 110), Social Work, and Sociology.**

TOTAL: 36 hours, 9 courses.

CORE II (INTEGRATED STUDIES PROGRAM)

A coherent program of interdisciplinary courses that explores a central theme—THE DYNAMICS OF CHANGE.

- 1. SEQUENCE I: IS 111-112 THE IDEA OF PROGRESS (2 courses, 8 hours)**
Normally taken in the freshman year.
- 2. TWO OF FOUR 200-LEVEL SEQUENCES (2 courses each, 4 total; 16 hours)**
 - SEQUENCE II (Courses in the 220s)**
 - IS 221 The Developing Individual
 - IS 222 The Burden of Human Responsibility
 - IS 223 The Emergence of Mind and Morality
 - IS 224 Brain, Consciousness, and Transcendence
 - SEQUENCE III (Courses in the 230s)**
 - IS 231 Symbol, Language, and Myth
 - IS 232 Model and Metaphor
 - IS 233 Imaging the Self
 - IS 234 Imaging the World
 - SEQUENCE IV (courses in the 240s)**
 - IS 241 Thrust for Technological Growth
 - IS 242 Limits to Technological Growth
 - IS 243 The Experience of War
 - IS 244 Prospects for War and Peace
 - SEQUENCE V (courses in the 250s)**
 - IS 251 Technology and Computers
 - IS 252 Computers and Models
- 3. CONCLUDING SEMINAR: IS 351 (1 course, 4 hours)**

TOTAL: 28 hours, 7 courses

For course descriptions and further details, see the Integrated Studies Program section of this catalog. A brochure is available from the Office of Admissions, the Office of the Registrar, or the program coordinator (Provost's Office).

Core I requirements may be met by certain Core II courses:

- Arts/Literature
 - IS 233
 - IS 112, 222, 233, or 231-232 together
- Natural Sciences/Mathematics
 - 1 or 3. IS 231-232 together
 - IS 223
 - IS 251-252 together
- Philosophy
 - IS 111, 221, 223, 224, 243-244 together
- Religious Studies
 - 2 or 3. IS 111, 241, 243-244 together
- Social Sciences
 - IS 112, 222, 243-244 together, 251-252 together
 - IS 221, 224, 241

See course descriptions for information about which Core I requirements a given Core II course may fulfill.

Anthropology

A

Anthropology

Anthropology as a discipline tries to bring all of the world's peoples into human focus. Though anthropology does look at "stones and bones," it also examines the politics, medicine, kinship, arts, and religion of peoples and cultures in various places and times. This makes the study of anthropology a complex task, for it requires an understanding of many disciplines, from geology and biology to art and psychology.

Regardless of the specific area that is studied, the essence of anthropology is the observation of different peoples and cultures—studying them as they really are instead of how people think they are or should be. It is through this detailed study of all people that we gain the full picture of what it really means to be human.

Anthropology is composed of four fields. Cultural or social anthropology studies living human cultures in order to create a cross-cultural understanding of human behavior. Archaeology has the same goal, but uses data from the physical remains of past cultures to reach it. Linguistic anthropology studies human language to discover what it can tell about the human past and behaviors in the present. Physical anthropology studies the emergence and subsequent biological adaptations of humanity as a species.

Anthropology at PLU provides students with a well-rounded background in the field which they can use in the business, governmental, and academic worlds.

FACULTY

Klein, Chair; Guldin, Rasson.

BACHELOR OF ARTS MAJOR: 32 semester hours, including 102, 210, 221, 222, 490, and 12 additional hours in anthropology chosen in consultation with the department.

MINOR: 16 semester hours, including 101 or 102, one course at the 300 level, one course at the 400 level, and one additional course chosen in consultation with the department.

COURSE OFFERINGS

101 EXPLORING ANTHROPOLOGY: EVOLUTION AND CULTURE

Introduction to physical anthropology and archaeology, concentrating on the concepts of physical and cultural evolution. Brief survey of primate behavior and evolution with an emphasis on the evolution of proto-humans into modern *Homo sapiens*; early cultural beginnings during the Old and New Stone Ages; the human life cycle and human nature; the development and distribution of basic social and cultural institutions. (4)

102 EXPLORING ANTHROPOLOGY: CULTURE AND SOCIETY

Introduction to social-cultural anthropology and cultural linguistics, concentrating on the exploration of the infinite variety of human endeavor in all aspects of culture and all types of societies; from tool-making to language, religion, politics, law, warfare, family kinship and art; from hunters and gatherers to industrialists. (4)

210 GLOBAL PERSPECTIVES: THE WORLD IN CHANGE

A survey of global issues affecting the human condition in a rapidly changing and increasingly interdependent world: modernization and development; economic change and international trade; diminishing resources; war and revolution; peace and justice; and cultural diversity. These issues are examined in a multidisciplinary light using case studies drawn from non-Western and Western nations. Emphasis on the development of a global perspective which recognizes human commonalities as well as diversity in perceptions, values, and priorities. (4)

220 PEOPLE OF THE WORLD

An exploration of the world's cultures through anthropological films, novels, and eye-witness accounts. Case studies chosen from Africa, Native America, Asia, the Pacific and Euro-American provide an insider's view of ways of life different from our own. (2)

221 APES, MONKEYS, AND HUMANS

Human biology in evolutionary perspective; theories of evolution; fossil evidence for human development; the living non-human primates in behavior and form; present-day humans as biological creatures. Does not meet core requirement in social sciences. (4)

222 ARCHAEOLOGY AND CIVILIZATION

The development of culture, emphasizing the adaptive role of culture in a variety of environmental settings. The rise of the state in Mesopotamia, Egypt, Asia, Middle and South America. The theory and methods of archaeology; local archaeology and prehistory. (4)

322 ARCHAEOLOGY AND ARTIFACTS

Laboratory interpretation of archaeological materials. Techniques used in interpreting past human environments; analysis of debris left from the processing of foods and the construction of artifacts; replication steps of the manufacture, use, and discard of tools. Projects include mapping and interpreting the inter-relationships of artifacts in a site, the use of computers to analyze cultural remains, and field trips to an archaeological site. (4)

330 CULTURES AND PEOPLES OF NATIVE NORTH AMERICA

A comparative study of Native North American cultures from their arrival on the continent through today. Stress on traditional societies, their history under colonization and their emergence as vital contemporary societies. Examination of U.S. and Canadian laws, policies, and conflicts, including land fishing claims, issues of sovereignty, and religious rights. (4)

332 CULTURES AND PEOPLES OF LATIN AMERICA

Beginning with the ancient Southern MesoAmerican empires, this course is a comparative study of the traditional folk cultures and contemporary urban cultures of South and Central America; examination of the impact of colonialism and the position of Latin America in the modern world. (4)

340 THE ANTHROPOLOGY OF CONTEMPORARY AMERICA

An investigation of American social patterns and problems designed to give insights from a cross-cultural perspective; exploration of other cultures' solutions of common human problems sheds light on such "American" problems as "law and order," racism, drugs, religion, cultism, sexism, family breakdown, sexual promiscuity, and violence; a determination of what is unique about the "American Way." (4)

350 CULTURES AND PEOPLES OF ASIA

Survey of South, Southeast and East Asia with an emphasis on the cultural patterns (social, religious, kinship, political and economic) of the region; concentration on the civilization centers of India and China and their effect on surrounding peoples; Asian peoples in today's world. (4)



352 CHINESE CULTURE AND SOCIETY

An immersion into the Chinese world-view, culture and society—geared to exposing the student to the way of life for one-quarter of humanity; Chinese culture, both traditional and contemporary, including folk religion, family life, human relations, politics, social structure; Confucianism and Communism; the People's Republic, Hong Kong, Taiwan, and the Overseas Chinese. (4)

360 CULTURES AND PEOPLE OF AFRICA

A comparative study of the Black African cultures south of the Sahara; the effects of the colonial era on traditional African culture and the position of these cultures in the modern world. (4)

430 SICKNESS, MADNESS, AND HEALTH

A cross-cultural examination of systems of curing practices and cultural views of physical and mental illness and health; prevention and healing; the role of religious views; nature and skills of curers; definitions of disease; variation in diseases between classes and ethnic groups; impact of modern medical and psychological practitioners. (4)

440 POWER, POLITICS, AND REVOLUTION

A study of politics through the political structures and processes of traditional and contemporary societies; concepts of leadership, factionalism and feuds, power, authority, law, war, revolution and other reactions to colonization. Examples from around the world: Burma, Pakistan, the Pacific, Africa, peasant Europe, Latin America, and Native America. (4)

450 CITIES IN TIME AND SPACE

A cross-cultural look at the urban in human life from Ancient Egypt to Seattle to Timbuctu; a consideration of city life versus rural life; different types, functions, and characters of cities; the processes of urbanization and urbanism and their growing importance for societies and peoples throughout the globe; the origins and futures of the world's cities. (4)

460 WOMEN AND MEN IN WORLD CULTURES

An overview of the variation of sex roles and behaviors throughout the world; evolution of sex roles; theories of matriarchy, patriarchy, mother goddesses, innate inequalities; impact of European patterns in the world; marriage patterns from polygyny to polyandry; egalitarianism to feminism. (4)

470 ETHNIC GROUPS

An examination of the nature of ethnic groups in America and abroad; the varying bases of ethnicity (culture, religion, tribe, "race," etc.); problems of group identity and boundary maintenance; ethnic symbols; ethnic politics; ethnic neighborhoods; and ethnic humor. (4)

480 GODS, MAGIC, AND MORALS

The anthropology of religion; a survey of humanity's concepts of and relationships to the supernatural; examination of the varying personal and group functions that religions fulfill; exploration of rituals, beliefs, and systems of morality in religions both "primitive" and historical; origins of religion; science "versus" religion; the nature of reality. (Cross-referenced with REL. 480) (4)

490 ANTHROPOLOGICAL INQUIRY

A systematic study of the theoretical foundations of sociocultural anthropology; research methods; how theory and methods are used to establish anthropological knowledge. (4)

491 INDEPENDENT STUDY: UNDERGRADUATE READINGS

Reading in specific areas or issues of anthropology under supervision of a faculty member. Prerequisite: departmental consent. (1-4)

492 INDEPENDENT STUDY: UNDERGRADUATE FIELDWORK

Study of specific areas or issues in anthropology through in-field methods of analysis and research supported by appropriate reading under supervision of a faculty member. Prerequisites: 490 and departmental consent. (1-4)

493 SEMINAR IN ANTHROPOLOGY

Student or faculty initiated seminar in one of four fundamental areas in anthropology: (a) Contemporary Issues and Problems; (b) Social Process and Change; (c) Social Structure; and (d) Theory and Method. Prerequisite: departmental consent. (1-4)

501 GRADUATE WORKSHOPS

Graduate workshops in special fields or areas for varying periods of time. (1-4)

590 GRADUATE SEMINAR

Selected topics as announced. Prerequisite: consent of the instructor. (1-4)

591 DIRECTED STUDY (1-4)**595 GRADUATE READINGS**

Independent study card required. (4)

598 RESEARCH PROJECT (4)**599 THESIS (4)**

A

Anthropology



Art

A

Art

In this time of rapidly changing concepts and an almost daily emergence of new media, emphasis must be placed on a variety of experiences and creative flexibility for the artist and the designer. Students with professional concerns must be prepared to meet the modern world with both technical skills and capacity for innovation. The department's program therefore stresses individualized development in the dexterous use of mind and hand. A highly professional faculty, well-equipped studios, and a comprehensive curriculum offer variegated opportunities for study in the visual arts.

Students may choose among a generalized program leading to a Bachelor of Arts degree; a more specialized program for the Bachelor of Fine Arts, in which each candidate develops some area of competence; or a degree program in art education for teaching on several levels.

Recent graduates may be found in a variety of fields. Several have become established as painters, printmakers, or sculptors; some are successful studio potters; others have gone into commercial photography or film animation—even the production of feature films. The television industry employs still others. A number are working in the design field as graphic designers, illustrators, package designers, or art directors in firms around the country, in New York, Chicago, Los Angeles, and Seattle. Alumni have been involved in museum work and in serving on the faculties of various educational institutions, from elementary through high schools as well as community colleges and universities.

Some students go directly from the university into their field of interest. Others find it desirable and appropriate to attend a graduate school and have been accepted into prestigious graduate programs, both in this country and abroad.

The various fields of art are competitive and demanding in terms of commitment and effort. Nonetheless, there is always a place for those who are extremely skillful or highly imaginative or, ideally, both. The department's program stresses both, attempting to help each student reach that ideal. Instructional resources, when coupled with dedicated and energetic students, have resulted in an unusually high percentage of graduates being able to satisfy their vocational objectives.

FACULTY

Cox, Chair; Gary, Geller, Gold, Keyes, Kittleson, Minas, Roskos, Schwidder, Tomsic. Artist-in-Residence: Torrens.

The department has sought to minimize prerequisites, enabling students to elect courses relating to their interests as early as possible. It is recommended that students interested in majoring in art declare their major early to insure proper advising. Transfer students' status shall be determined at their time of entrance.

The department reserves the right to retain, exhibit, and reproduce student work submitted for credit in any of its courses or programs.

A use or materials fee is required in certain courses.

BACHELOR OF ARTS MAJOR: Minimum of 32 semester hours, including 160, 250, 230 or 350, 365, 370, and the art history sequence (180, 280, 380). A maximum of 40 hours may be applied toward the degree. Candidates are registered in the College of Arts and Sciences and must satisfy general university requirements, including a core curriculum (Core I or Core II), and the foreign language/alternative requirement.

BACHELOR OF FINE ARTS MAJOR: A minimum of 56 semester hours, including 160 and 250; the art history sequence (180, 280, 380); 8 hours in pictorial media, 8 hours in materials media, and 4 hours in art history or theory (381, 386, 388, or as approved by the department faculty); requirements and electives in area of emphasis; and 499 (B.F.A. candidacy exhibition). 110 courses in teaching methods may not be included. Candidates are registered in the School of the Arts and must satisfy general university requirements, including a core curriculum (Core I or Core II).

B.F.A. in Pictorial Media

Areas of emphasis: a minimum of three courses required in one area

Drawing/Painting:

160 Drawing
360 Life Drawing (R)
365 Painting I
465 Painting II (R)

Printmaking:

370 Printmaking I
470 Printmaking II (R)

Film Arts:

326 Photography I
328 Film Making
426 Photography II (R)

Independent Study (may be applied to any area):

492 Studio Projects (R)

(R)—may be repeated for credit

B.F.A. in Materials Media

Areas of emphasis: a minimum of three courses required in one area

Ceramics:

230 Ceramics I
330 Ceramics II
430 Ceramics III (R)

Sculpture:

250 Sculpture I
350 Sculpture II
450 Sculpture III (R)

Crafts:

215 Crafts (R)
216 Jewelry (R)
315 Stained Glass (offered periodically)
335 Fibers (R)

Independent Study (may be applied to any area):

492 Studio Projects (R)

(R)—may be repeated for credit



B.F.A. in Design

Required basic sequence:

- 196 Design I: Fundamentals
 - 296 Design II: Concepts
 - 381 Twentieth Century Design and Architecture
 - 396 Design: Graphics I
 - 491 Design: Workshop
- Elective courses:
- 395 Design: Environments
 - 398 Design: Illustration
 - 496 Design: Graphics II

Supporting courses in art may be chosen in accord with individual interests. Supporting courses from other departments and schools may also be elected (for example, Business Administration 370 or 472 and Communication Arts 374 or 380). Applicable courses will be recommended by advisers.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

The Publishing and Printing Arts minor is cross-referenced with the Department of English. See the description of that minor under English.

COURSE OFFERINGS

STUDIO

- 160 DRAWING
- 196 DESIGN I: FUNDAMENTALS
- 215 CRAFTS
- 216 JEWELRY
- 230 CERAMICS I
- 250 SCULPTURE I
- 296 DESIGN II: CONCEPTS
- 326 PHOTOGRAPHY I
- 328 FILM MAKING
- 330 CERAMICS II
- 335 FIBERS
- 341 ELEMENTARY ART EDUCATION
- 350 SCULPTURE
- 360 LIFE DRAWING
- 365 PAINTING I
- 370 PRINTMAKING I
- 395 DESIGN: ENVIRONMENTS
- 396 DESIGN: GRAPHICS I
- 398 DESIGN: ILLUSTRATION
- 426 PHOTOGRAPHY II
- 430 CERAMICS III
- 450 SCULPTURE III
- 465 PAINTING II
- 470 PRINTMAKING II
- 491 DESIGN: WORKSHOP
- 492 STUDIO PROJECTS
- 496 DESIGN: GRAPHICS II
- 499 B.F.A CANDIDACY EXHIBITION

HISTORY AND THEORY

- 110 INTRODUCTION TO ART
- 180 TRADITIONS OF WESTERN ART
- 280 MODERN ART
- 380 CONTEMPORARY ART
- 381 TWENTIETH CENTURY DESIGN AND ARCHITECTURE
- 386 IMAGERY AND SYMBOLISM
- 388 AMERICAN ART
- 440 SEMINAR IN ART EDUCATION
- 490 SEMINAR
- 497 RESEARCH IN ART HISTORY-THEORY

110 INTRODUCTION TO ART

Art in the modern world seen in relation to history; a search for meaning in an age of science, industrialization, and nationalism. Not intended for majors. (4)

160 DRAWING

A course dealing with the basic techniques and media of drawing. (4)

180 TRADITIONS OF WESTERN ART

A survey tracing the development of Western art from prehistory to the beginnings of the modern epoch in the 18th century. (4)

196 DESIGN I: FUNDAMENTALS

An introduction to design through the study of basic techniques, color theory, and composition. (4)

215 CRAFTS

A studio survey of contemporary craft techniques. Assigned problems in a variety of media including fused and leaded glass, enamel on metal, and textiles. May be repeated for credit. (4)

216 JEWELRY

A study of form and technique in the design and execution of jewelry objects. Includes stone setting, fabrication, and casting. May be repeated for credit. (4)

230 CERAMICS I

Ceramic materials and techniques including hand-built and wheel-thrown methods, clay and glaze formation. Includes a survey of ceramic art. (4)

250 SCULPTURE I

Various techniques and materials of sculpture and their influence on three-dimensional form. (4)

280 MODERN ART

A survey of modern art from the late 18th century through major movements of the 19th and 20th centuries up to the Second World War. (4)

296 DESIGN II: CONCEPTS

An investigation of the process of creative problem solving in a methodical and organized manner. Includes projects in a variety of design areas. Prerequisite: 196 or consent of instructor. (4)

326, 426 PHOTOGRAPHY I, II

A studio course in photography as an art form. Primary concentration on camera techniques and use of darkroom. Student production of slide and print portfolios, with an emphasis on creative and expressive experimentation. 326 must be taken before 426; 426 may be taken twice. (4, 4)

328 FILM MAKING

A studio course in film making as an art form. A study of the materials and techniques of film making and the production of student 8 mm. and 16 mm. films. Classic and experimental films will be surveyed. (4)

330, 430 CERAMICS II, III

Techniques in ceramic construction and experiments in glaze formation. 330 must be taken before 430; 430 may be taken twice. Prerequisite: 230. (4, 4)

335 FIBERS

Exploration and development of fiber structures and soft art forms with non-loom and loom techniques. May be repeated for credit. (4)

341 ELEMENTARY ART EDUCATION

Various projects and media suitable for the instruction of art in elementary school; emphasis on developmental theory. (2)

350/450 SCULPTURE II, III

Concentration on a particular medium of sculpture including metals, wood, or synthetics; special sections emphasizing work from the human form as well as opportunity for mold making and casting. 350 must be taken before 450; 450 may be taken twice. Prerequisite: 250. (4, 4)

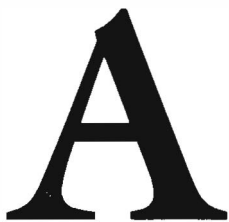
360 LIFE DRAWING

An exploration of human form in drawing media. May be repeated for credit. Prerequisite: 160 or consent of instructor. (4)

365, 465 PAINTING I, II

Media and techniques of painting in oil or acrylics. 365 must be taken before 465; 465 may be taken twice. Prerequisite: 160. (4, 4)



**370, 470 PRINTMAKING I, II**

Methods and media of fine art printmaking; both hand and photo processes involving lithographic, intaglio and screen printing. 370 must be taken before 470; 470 may be taken twice. Prerequisite: 160 or consent of instructor. (4, 4)

380 CONTEMPORARY ART

The development of art from 1945 to the present, with a brief look at European and American antecedents as they apply to contemporary directions. Includes a substantial section on aesthetics and art theory. (4)

381 TWENTIETH CENTURY DESIGN AND ARCHITECTURE

A study of twentieth century developments in architecture and related fields as well as certain design areas. (4)

386 IMAGERY AND SYMBOLISM

A survey of symbolic, pictorial, and plastic expressions in Western tradition from the perspective of their philosophical and theological implications, with particular emphasis on the development of the Christian cultus. (4)

388 AMERICAN ART

A study of the traditions and developing characteristics of American style from early settlements to the present. (4)

395 DESIGN: ENVIRONMENTS

An investigation into various types of environments with particular emphasis on residential. Included will be a brief history of furniture and design styles; approaches to planning and procedures; and an introduction to technical drawing and model building. Prerequisite: 196 or consent of instructor. (4)

396, 496 DESIGN: GRAPHICS I, II

Design and execution of printed materials; emphasis on technical procedures and problems in mass communication. 496 explores advanced techniques with multiple color, typography, and other complex problems. 396 must be taken before 496. Prerequisite: 160 and 296 or consent of instructor. (4, 4)

398 DESIGN: ILLUSTRATION

Projects in various types of illustration from story to advertising. Prerequisites: 160 and 196. (4)

426 PHOTOGRAPHY II (See 326)**430 CERAMICS III (See 330)****440 SEMINAR IN ART EDUCATION**

A study of instruction in the secondary school including appropriate media and curriculum development. a/y (2)

450 SCULPTURE III (See 350)**465 PAINTING II (See 365)****470 PRINTMAKING II (See 370)****490 SEMINAR**

Selected topics considering some aspects of the visual arts. May be repeated for credit. Prerequisite: consent of instructor. (4)

491 DESIGN: WORKSHOP

A tutorial course which may deal with any of several aspects of the design field with particular emphasis on practical experience and building a portfolio. (2)

492 STUDIO PROJECTS

A tutorial course with individual investigation of a particular medium, for major students only. May be repeated for credit. Prerequisites: senior status, consent of instructor, and program approval by department faculty. III (4)

496 DESIGN: GRAPHICS II (See 396)**497 RESEARCH IN ART HISTORY-THEORY**

A tutorial course for major students with research into a particular aspect of art history or theory. May be repeated for credit. Prerequisites: senior status, consent of instructor, and program approval by department faculty. (2 or 4)

499 B.F.A. CANDIDACY EXHIBITION

Exhibition of undergraduate work by B.F.A. candidates. Students are responsible for all arrangements in consultation with their major advisers. (no credit)

School of *The Arts*

The School of the Arts of Pacific Lutheran University is a community of artists dedicated:

to provide energies and facilities for the focused refinement of creative activity;

to operate in the vanguard of artistic understanding and to assume an additive rather than imitative position relative to that understanding;

to pursue study of both the historical and theoretical aspects of our creative legacy;

to recognize change in artistic criteria without devaluing the traditional concepts of discipline, craftsmanship, and academic professionalism;

to foster activity free from the caprice of the marketplace but, by virtue of its substance, not aloof from nor incompatible with practical concerns;

to animate and "humanize" the academic climate of Pacific Lutheran University via the creative presence by sponsoring a rich and varied program of events in the arts;

and to provide the students of Pacific Lutheran University an opportunity to experience first hand the unique "chemistry" of the creative process.

FACULTY

Moe, Dean: faculty members of the Departments of Art, Communication Arts, and Music.

Degrees offered by the School of the Arts include the B.F.A. (Bachelor of Fine Arts) in art or in communication arts, the B.M. (Bachelor of Music), and the M.M. (Master of Music). Students may also earn the B.A. (Bachelor of Arts), but this degree is awarded through the College of Arts and Sciences. Candidates for the B.F.A. and B.M. as well as the B.A. in art, communication arts, or music must meet general university requirements and the specific requirements of the Departments of Art, Communication Arts, or Music.

For details about the B.A.E. (Bachelor of Arts in Education) in art, communication arts, or music, see the School of Education.

For course offerings, degree requirements, and programs in the School of the Arts, see:

ART
COMMUNICATION ARTS
MUSIC

Biology

B

Biology

The Department of Biology is dedicated to a teaching process, not just a delivery of facts. Facts form the foundation of science but approach infinity in number. Therefore, the biology faculty stresses the gathering, processing, retrieving, and interpreting of these facts.

The biology faculty believes in the notion that one of the most profound requirements in science is learning to ask the right questions and to recognize the answers. The department is therefore dedicated to permitting students to learn science in the only way that it can be effectively made a part of their thinking: to independently question it, probe it, try it out, experiment with it, experience it.

In addition to diverse faculty and balanced curriculum, the department provides numerous facilities for its students, including: herbarium, invertebrate and vertebrate museums, greenhouse, vivarium and surgery room, climate control rooms, growth chambers, vertebrate physiology and cell physiology laboratories, a field station located on State of Washington Parks land, and a boat equipped for studies of Puget Sound. Qualified students are invited to use these facilities in independent study or participation in ongoing faculty research.

Career avenues for graduates are numerous. The biology faculty are committed to helping students investigate and obtain the career which most clearly matches their interests and abilities.

FACULTY

Lerum, Chair; Alexander, Carlson, Crayton, Dickman, Gee, Hansen, J. Jensen, Knudsen, Main, D. J. Martin, Matthias, McGinnis.

BACHELOR OF ARTS or BACHELOR OF SCIENCE MAJOR: The major in biology is designed to be flexible in meeting the needs and special interests of students. Several options for major programs are available. In each plan for the major listed below, minimal requirements are described, and students should consult their major advisers on the selection of electives which will help them adequately meet their pre-professional and educational goals. A department adviser must be consulted before completion of Biology 253, the final course in the initial three semester core courses required of all biology majors. Interim courses (300-320) cannot be counted toward the major.

Plan I—Bachelor of Arts: 32 semester hours, including 155, 156, 253, and 254, plus 19 additional hours. 4 hours are permitted in courses numbered below 150 (if completed before taking 155) and up to 8 hours are permitted in courses numbered between 201 and 206. Required supporting courses: Chemistry 105 or 115 and Math 133 or equivalent. Recommended supporting courses: Physics 125-126.

Plan II—Bachelor of Arts—Comprehensive: 36 semester hours, including 155, 156, 253, and 254, plus 23 additional hours in courses numbered over 200. Up to 8 hours are permitted in courses numbered between 201 and 206. Required supporting courses: Chemistry 115, 116 and Math 133 or equivalent. Recommended supporting courses: one semester of organic chemistry and Physics 125-126.

Plan III—Bachelor of Arts—Chemistry Emphasis: 28 semester hours, including 155, 156, 253 and 254, plus 15 additional hours in courses numbered over 254. Required supporting courses: Chemistry 115, 116, 331, 332 with laboratories, plus one of the following—Chemistry 321 or 403 and Math 133 or equivalent. Recommended supporting courses: Physics 125-126.

Plan IV—Bachelor of Science: 40 semester hours, including 155, 156, 253, and 254, plus 28 additional hours in courses numbered over 200. Up to 8 hours are permitted in courses numbered between 201 and 206. Required supporting courses: Chemistry 115, 116, 331 with laboratories; Math 151; Physics 125-126 or 153-154.

Plan V—Bachelor of Science—Research Emphasis: 40 semester hours, including 155, 156, 253, 254, and 495, plus 25 additional hours in courses numbered over 254. Required supporting courses: Chemistry 115, 116, 331, 332 with laboratories; Math 151; Physics 125-126 or 153-154.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

MINOR: At least 20 semester hours selected from any biology courses except those numbered 300-320 (interim), in which a grade of C or higher is earned. Pass-fail courses may not be counted. Prerequisites must be met unless a written waiver is obtained in advance from both the instructor and the department chair. Applicability of non-PLU biology credits will be determined by the department chair. Consult the chair for assignment of a minor adviser.

COURSE OFFERINGS

111 BIOLOGY AND THE MODERN WORLD

An introduction to biology, designed primarily for non-biology majors. Fundamental concepts chosen from all areas of modern biology including the environment, population, human anatomy and physiology, genetics, evolution and biological controls. Lectures, laboratories, and discussion. I II (4)

112 HUMANISTIC BOTANY

An introduction to the basic principles of biology with an emphasis on plants and their impact on people. Topics included are: basic plant structure and function; poisonous plants; medicinal plants; food plants; propagation of house plants; home care of plants; plant identification. Includes laboratory. II (4).

155 PRINCIPLES OF BIOLOGY I: POPULATION BIOLOGY AND DIVERSITY OF LIFE

Introduction to science and levels of organization in biology; Mendelian genetics and population biology; history and diversity of life. Required of all biology majors. Includes laboratory. Co-registration in chemistry is strongly recommended. I (4)

156 PRINCIPLES OF BIOLOGY II: THE CELL AND BIO-ENERGETICS

Cellular and molecular levels of biological organization; cell ultra-structure and physiology, molecular genetics, energy transduction; energy flow and nutrient cycles in ecosystems. Required of all biology majors. Includes laboratory. Assumes completion of one semester of college chemistry (104 or 115). Prerequisite: 155. II (4)

201 INTRODUCTORY MICROBIOLOGY

The growth, control, physiology, isolation, and identification of microorganisms, especially those which affect human beings. Includes laboratory. Prerequisite: CHEM 105 or consent of instructor. I (4)



B

Biology

205,206 HUMAN ANATOMY AND PHYSIOLOGY

First semester: matter, cells and tissues; nervous, endocrine, skeletal, and muscular systems. Laboratory includes cat dissection and experiments in muscle physiology and reflexes. Second semester: circulatory, respiratory, digestive, excretory, and reproductive systems; metabolism, temperature regulation, and stress. Laboratory includes cat dissection, physiology experiments, and study of developing organisms. 205 (I) prerequisite to 206 (II). (4, 4)

253 PRINCIPLES OF BIOLOGY III: BIOLOGY OF THE STEADY STATE

The basic problems faced by plants and animals in maintaining themselves; structural adaptations, homeostasis, internal regulation, water and temperature control, gas exchange, vascular systems, and interaction between organisms. Required of all biology majors. Concurrent registration in 254 required. Prerequisites: 155, 156, and CHEM 105 or 116. I (4)

254 PRINCIPLES OF BIOLOGY III: LABORATORY

An investigative laboratory designed to introduce students to the scientific process. Includes familiarization with and methods of using scientific literature, data reduction and analysis, experimental design and execution, and scientific writing. Concurrent registration in 253 required. Prerequisites: 155, 156, and CHEM 105 or 116. I (2)

321 ORNITHOLOGY

The study of birds with emphasis on local species; designed for students with hobby interests as well as for advanced biology students. Field trips. Includes laboratory. Prerequisite: 254 or consent of instructor. II (2)

322 MICROBIOLOGY

The structure, physiology, genetics, metabolism, and ecology of microorganisms. Includes laboratory. Prerequisite: 254 or consent of instructor; one semester organic chemistry recommended. II (4)

324 NATURAL HISTORY OF VERTEBRATES

Classification, natural history, and economic importance of vertebrates with the exception of birds. Field trips and laboratory. Prerequisite: 254 a/y 1985-86 (4)

326 ANIMAL BEHAVIOR

Description, classification, cause, function, and development of the behavior of animals. Lectures emphasize an ethological approach to the study of behavior focusing on comparisons among species, as well as physiological, ecological, and evolutionary aspects of behavior. Laboratory is not rigidly scheduled and will consist of a behavioral investigation of the students' choosing. Prerequisite: 254 or consent of instructor. II (4)

331 GENETICS

Basic concepts including consideration of molecular basis of gene expression, recombination, genetic variability, and consideration of cytogenetics and population genetics. Includes laboratory. Prerequisite: 254 I (4)

340 PLANT DIVERSITY AND DISTRIBUTION

A systematic introduction to plant diversity. Interaction between plants, theories of vegetational distribution. Emphasis on higher plant taxonomy. Includes laboratory and field trips. Prerequisite: 254. II (4)

346 CELLULAR PHYSIOLOGY

Deals with how cells are organized to stay alive; enzyme kinetics and regulatory mechanisms; biochemistry of macromolecules; energy metabolism; membrane structure, permeability and transport phenomena; functional ultrastructure; cancer cells as model systems. Prerequisites: 254 and one semester of organic chemistry. I (4)

347 CELLULAR PHYSIOLOGY LABORATORY

A laboratory experience in techniques and types of instrumentation often encountered in biochemical and cellular research including animal cell culture, cell fractionation, use of radiotracers, biochemical assays, membrane phenomena, spectrophotometry, Warburg respirometry. May be elected only by students with a serious interest for this type of training. Corequisite/prerequisite: 346 or CHEM 403 and consent of instructor. I (1)

359 PLANT ANATOMY AND PHYSIOLOGY

Higher plant structure and function from germination to senescence, including basic anatomy, seed germination, water relations, respiration, mineral nutrition, photosynthesis, growth regulators, and reproduction. Includes laboratory. Prerequisites: 254 and one semester of organic chemistry. I (4)

361 COMPARATIVE ANATOMY OF THE VERTEBRATES

An integrated study of the principles of vertebrate structure. Considers how and why living vertebrates attained their present structure by emphasizing phylogenetic, developmental, and physiological topics. Prerequisite: 254. I (4)

371 INVERTEBRATE ZOOLOGY

Introduction to the form, function, natural history, and phylogeny of the major phyla of invertebrates. Laboratory exercises will include dissections, field studies, and collections. Prerequisite: 254 or consent of instructor. a/y 1985-86 II (4)

372 GENERAL ENTOMOLOGY

An introduction to insect anatomy, physiology, ontogeny, and behavior. Laboratory includes gross dissection, field study, and the collection and classification of insects. Prerequisite: 254. a/y 1984-85 I (4)

375 PARASITOLOGY

A study of the behavior, morphology, life histories, and host-parasite relationships of the common varieties of parasites that infect vertebrates, with special emphasis on those of humans. Includes laboratory and field trips. Prerequisite: 254 or consent of instructor. a/y 1985-86 II (4)

385 IMMUNOLOGY

Immunology is the study of the biological properties which enable an organism to respond to changes within itself when the changes represent the presence of foreign substances, either from the external environment or self-induced. Consideration of the biology and chemistry of immune response: the specificity of the organism's immune reactions, the types and roles of lymphatic cells, chemical and functional characteristics of immunoglobulins and complement, genetic control of the immune response, hypersensitivity reactions, and immunodeficiency diseases. Practical ramifications include methods of immunochemical analysis and clinical applications. Prerequisites: 322, 346, or CHEM 403. a/y 1985-86. II (2)

403 DEVELOPMENTAL BIOLOGY

Consideration of the development of multicellular organisms, focusing on the molecular bases for development. Topics include morphogenic movements, cell determination and differentiation, pattern formation, cell interactions in development, chemical messengers in development, and genetic regulation of development. Laboratory includes experimental problems and descriptive embryology. Prerequisite: 254. II (4)

407 MOLECULAR BIOLOGY

An introduction to molecular biology, emphasizing the molecular biology of eukaryotic cells. Topics include recombinant DNA procedures, genetic engineering, gene fine structure, gene expression, sequencing of nucleic acids, naturally occurring rearrangements of the genome, chemical synthesis of oligonucleotides, and the molecular composition and architecture of some cellular components. Prerequisite: any one of 322, 331, 346, 403, or CHEM 403. Interim (4).

411 HISTOLOGY

Microscopic study of normal cells, tissues, and organs of vertebrates. This study is both structurally and physiologically oriented. Prerequisite: 254. II (4)

424 ECOLOGY

Organisms in relation to their environment, including organismal adaptations, population growth and interactions, and ecosystem structure and function. Prerequisite: 254. II (4)

425 BIOLOGICAL OCEANOGRAPHY

The ocean as environment for plant and animal life; an introduction to the structure, dynamics, and history of marine ecosystems. Lab, field trips, and term project in addition to lecture. Prerequisite: 253. II (4)

426 FIELD METHODS IN ECOLOGY

Sampling techniques and analysis of natural ecosystems. Independent project required. Prerequisites: 254 and 424 or consent of instructor. II (2)



441 MAMMALIAN PHYSIOLOGY

Functions of principal mammalian organ systems emphasizing control mechanisms and homeostatic relationships. Human-oriented laboratory includes work in circulation, cardiography, psychophysiology, temperature regulation, and other areas. Students are required to design and execute a major experiment of their own. Prerequisites: 254 and CHEM 331. Anatomy and biochemistry recommended. I (4)

475 EVOLUTION

Evolution as a process: sources of variation; forces overcoming genetic inertia in populations; speciation. Evolution of genetic systems and of life in relation to ecological theory and earth history. Lecture and discussion. Term paper and mini-seminar required. Prerequisite: 254. I afy 1984-85 (4)

490 SEMINAR

Selected topics in biology based on literature and/or original research. Open to junior and senior biology majors. (1)

491, 492 INDEPENDENT STUDY

Investigations or research in areas of special interest not covered by regular courses; open to qualified junior and senior majors; students should not elect independent study unless they know in advance the specific area they wish to investigate and can demonstrate a serious interest in pursuing it. It is suggested that the student spend one semester researching the literature and writing a proposal (for 1 sem. hr. of credit) and the next semester actually carrying out the project (for another 1 sem. hr. of credit). Students will not be permitted to use 491-492 for filling in a deficiency in their program. Prerequisite: written proposal for the project approved by a faculty sponsor and the department chair. (1-4)

495 DIRECTED STUDY

Original experimental or theoretical research open to upper division students intending to graduate with a Bachelor of Science-Research Emphasis. Requires a written proposal approved by a faculty sponsor and the department chair. (2)

School of *Business* *Administration*

School of Business Administration

In concert with general university requirements, the business curriculum prepares graduates for responsible positions in business, education, and government.

Optional concentrations are offered in the fields of accounting, finance, human resource management, management information systems, marketing, and operations management.

FACULTY

King, *Dean*; Bancroft, Barndt, Barnowe, Berniker, D. Carvey, L. Carvey, Crooks, Cubbage, Hegstad, Lauer, McNabb, Myers, Nibler, C. Olson, Ramaglia, Savarino, Schafer, Sepic, Thrasher, Van Wyhe, Wahlen, Zulauf.

ADMISSION

The professional Bachelor of Business Administration degree program is composed of an upper division business curriculum with a strong base in liberal arts.

Undergraduate students are admitted to the School of Business Administration upon the successful completion of at least 24 semester hours with a cumulative grade point average of 2.5 or above, and the declaration of business administration as the major field of study. Transfer students are also required to have maintained the grade point average of 2.5. The student's interest to acquire a professional competence is desired and the assignment of a business faculty adviser is required.

Students considering graduate-level study should seek early planning advice from the faculty concerning appropriate undergraduate course selection.

Graduate students are admitted to the School of Business Administration when they meet the requirements specified in the M.B.A. brochure.

AFFILIATIONS

The School of Business Administration of Pacific Lutheran University is a member of the American Assembly of Collegiate Schools of Business. The B.B.A., M.B.A., and accounting programs are nationally accredited by the Accreditation Council of the AACSB. Pacific Lutheran University is accredited regionally by the Northwest Association of Schools and Colleges.

DEGREE REQUIREMENTS

Sixty-four semester hours or one-half of the minimum total degree requirements are taken in fields outside the School of Business Administration. At least 40 semester hours are taken in required and elective business subjects.

The Bachelor of Business Administration degree program consists of 128 semester hours to be taken over a four-year period, and to be completed with an over-all grade point average of 2.5 or above as well as a 2.5 grade point average separately in business courses. D grades in business administration core courses (including the two upper division business electives) will not meet the B.B.A. graduation requirements.

BACHELOR OF BUSINESS ADMINISTRATION:

230, 281, 282, 350, 354, 364, 370, 455, and 8 semester hours of upper division business electives. Required supporting courses: Economics 150, Math 128 (or 151 and 230) (or 151, 152, and 331) Computer Science 220 (or equivalent), Statistics 231, and one upper division economics course. **NO MORE THAN 50 PERCENT OF THE TOTAL HOURS MAY BE BUSINESS COURSES.** The elective courses are chosen to support students' professional career objectives or graduate study plans. They may reflect business administration concentrations or selections from entirely different fields. The latter may include work in other professional schools or programs.



B

School of Business Administration



CONCENTRATIONS:

A concentration is a specialization within the School of Business Administration. The concentration, which is noted on the student's transcript, must be completed with at least a 2.5 grade point average.

Accounting

- BA 381 Intermediate Financial Accounting
- BA 382 Advanced Financial Accounting
- BA 385 Cost Accounting
- BA 483 Income Taxation
- BA 484 Auditing
- BA 487 Accounting Information Systems

Finance

- BA 364 Managerial Finance
- BA 367 Financial Markets
- BA 464 Financial Planning and Control
- BA 381 Intermediate Accounting
 - OR 461 Portfolio Management
- ECON 352 Intermediate Micro Economic Analysis
 - OR ECON 361 Money and Banking
 (Either course will fulfill the business requirement for an upper division economics course.)

Human Resource Management

- BA 354 Human Resource Management
- BA 454 Organizational Change and Development
- BA 457 Productivity and the Quality of Work Life
- BA 458 Advanced Human Resource Administration
- ECON 321 Labor Economics, Labor Relations, and Human Resources (This will fulfill the requirement for an upper division economics course.)

Management Information Systems (Completion of this concentration also fulfills the requirements for an Information Science minor within the Department of Mathematics and Computer Science.)

- CSCI 144 Pascal*
- CSCI 270 Data Structures
- CSCI 467 Data Base Management
- BA 325 Information Systems in Organizations
- BA 421 Systems Design and Analysis
- BA 428 Seminar in Management Information Systems
- BA 487 Accounting Information Systems
 - *CSCI 144 may be taken in lieu of CSCI 220 by students in the Management Information Systems concentration to meet the School of Business Administration computer science requirement.

Marketing

- BA 370 Marketing Systems
- BA 470 Marketing Management
- BA 471 Marketing Research and Consumer Behavior
- Two of the following:
 - BA 472 Advertising and Sales Management
 - BA 473 Industrial Marketing and Purchasing
 - BA 474 International Marketing

Operations Management

- BA 350 Management
- BA 385 Cost Accounting
- BA 450 Production and Operations Management
- BA 473 Industrial Marketing and Purchasing

MINOR IN BUSINESS ADMINISTRATION: Economics 150; Math 128 (or 151 and 230) (or 151, 152, and 331); Computer Science 220 (or equivalent); Statistics 231; Business Administration 281, 350, 364, 370.

MASTER OF BUSINESS ADMINISTRATION: See Graduate Catalog.

BUSINESS ADMINISTRATION COURSES

Courses numbered 100-299 are available to all students.

Courses numbered 321-499 are open to students with junior standing and the required prerequisites.

Courses numbered 500-599 are reserved for students in the M.B.A. program and students in other PLU graduate programs who have an approved field in business.

The middle digit of the course number indicates the field of concentration:

- 2—management information systems
- 3—law
- 4—general service
- 5—human resource management
- 6—finance
- 7—marketing
- 8—accounting
- 9—specialized and predominantly independent studies

COURSE OFFERINGS

230 LAW AND SOCIETY

A study of the legal system in the United States and the regulation of relationships between individual citizens, groups, and the governmental agencies and branches. Review of the rights and obligations of individual citizens and corporations, administrative law, and the procedures and practices of the courts in a modern society. Prerequisite: sophomore standing. I II (4)

281 FINANCIAL ACCOUNTING

An introduction to accounting concepts and principles. Preparation and analysis of financial reports. Prerequisite: sophomore standing. I II (4)

282 MANAGEMENT ACCOUNTING

Introduction to management accounting information systems. Emphasis on the analysis and interpretation of accounting and economic data and their use in planning, control, and decision making. Prerequisites: 281. Sophomore standing. I II (4)

325 INFORMATION SYSTEMS IN ORGANIZATIONS

Introduction to the fundamental concepts of systems and information as they apply to organizations. Focus on the integration of information systems into the structure and decision-making process of management. A variety of strategies for the design and implementation of management information systems in organizations will be developed. Prerequisites: CSCI 144 or 220. Junior standing. I (4)

340 INTERNATIONAL BUSINESS

Integrated study of international business functions, and related concepts, practices, and policies. Project and case analyses. This is the principal business administration course for students in the Global Studies International Trade minor. Prerequisites: 281 and ECON 331. II (4)

350 MANAGEMENT

A critical examination of the principles and processes of administration. Management techniques and the functions of planning, organizing, direction, and control are discussed from both the classical and the behavioral points of view. Study of the concepts and characteristics of the production function. Introduction to case analysis and problem-solving techniques. Prerequisites: ECON 150, STAT 231 (may be concurrent), and BA 281. Junior standing. I II (4)

354 HUMAN RESOURCE MANAGEMENT

Detailed examination of the behavior of individuals and groups in business organizations, with emphasis on policies and practices for solving human resource problems. Fundamentals of personnel/human resource procedures in industrial and other organizations. Prerequisite: 350. I II (4)

364 MANAGERIAL FINANCE

Concentrated study of the tools of financial analysis: Funds and cash flows, critical analysis of financial statements and other financial information, techniques of financial planning and budgeting, and the concepts related to capital expenditure budgeting, and the cost of capital. An introduction to financial strategies and decision making for financing, expansion, and dividend policies. Required for business majors. Prerequisites: CSCI 220 (or equivalent), ECON 150, MATH 128 (or equivalent), STAT 231, and BA 281. Junior standing. I II (4)

367 FINANCIAL MARKETS

Analysis of the characteristics and determinants of an efficient financial system; pricing of capital assets; supply and demand for loanable funds and the level and structure of interest rates; savings-investment process and financial intermediaries; insurance and reinsurance markets; commodity markets; and international finance. Prerequisites: CSCI 220 (or equivalent), ECON 150, MATH 128 (or equivalent), STAT 231, BA 281, 364. I (4)

370 MARKETING SYSTEMS

The flows of goods and services in the economy, economic and behavioral approaches to the analysis of demand; the role of the marketing functions in a business firm. Determination of a marketing mix-product policy, pricing, channels of distributions, and marketing communications. Prerequisites: ECON 150, MATH 128 (or equivalent), STAT 231, and BA 281. Junior standing. I II (4)

B

School of Business Administration



381 INTERMEDIATE FINANCIAL ACCOUNTING

Concentrated study of the conceptual framework of accounting, valuation theories, asset and income measurement, and financial statement disclosures. Prerequisite: 281. I II (4)

382 ADVANCED FINANCIAL ACCOUNTING

Concentrated study of equity measurement including the accounting aspects of partnerships, corporations, and consolidations. Also includes financial statement analysis and an introduction to accounting problems of not-for-profit organizations. Prerequisites: 281, 381. I II (4)

385 COST ACCOUNTING

Basic and advanced concepts of costs in developing information for management use in the determination of income, evaluation of capital investment alternatives, and the measurement of performance. Prerequisites: 281, 282. I II (4)

392 INTERNSHIP

A program of full-time experience closely related to the student's specific career and academic interests. The student is expected to develop the internship opportunity with a firm or organization, and the School will prepare an internship agreement. This agreement identifies the problems to be researched, experience to be gained, and related readings to be accomplished. Monthly progress reports and other measures of achievement will be used to determine the grade. Not more than 2 hours of credit will be granted for a full month of internship, and not more than 8 hours of accumulated credit will be granted for the internships taken. The internship cannot be used to meet the minimum requirement for two business administration elective courses, and it must be completed prior to the last semester before graduation. Prerequisites: 281, 282, 350; ECON 150; STAT 231; one additional course in the student's area of concentration. (2 or 4)

421 SYSTEMS DESIGN AND ANALYSIS

Integration of the areas of computer technology, systems analysis, systems design, and implementation. Emphasis on the formalization of the information systems analysis and development process. Exercises and case studies to deal with information analysis and the logical specification of the project. Prerequisites: 281, 282, CSCI 144 (or 220). II (4)

428 SEMINAR IN MANAGEMENT INFORMATION SYSTEMS

A course involving a significant hands-on project, software review and selection, and management applications by organizational functions. Prerequisites: 281, 282, 421, 487, CSCI 144 (or 220). (4)

435 BUSINESS LAW

Procedures, contracts, agencies, negotiable instruments, business organizations, property, trusts and wills, transportation, insurance and employment. II (4)

450 PRODUCTION AND OPERATIONS MANAGEMENT

Critical study of key concepts, practices, and quantitative techniques applicable to managing the production of goods or services. Includes examination of facility design; work design and measurements; and production planning, control, and scheduling considerations. Prerequisites: 350, MATH 128 (or equivalent), CSCI 220 (or equivalent). I (4)

454 ORGANIZATIONAL CHANGE AND DEVELOPMENT

Examination of the need for change in organizations, using a diagnostic approach and employing appropriate strategies to develop human resources vital to every organization's economic viability. Emphasis on developing the skills of an internal change agent with knowledge of evaluation methods and interventions that facilitate planned change. Prerequisites: 350, 354. II (4)

455 BUSINESS POLICY

Study of organizational administration from top management perspective. Formulation and execution of strategies and policies to integrate all management and business functions in support of organizational objectives. Implications of resource availability, technology, and the economy; education, religion, ethics, and personal values; social responsibility; public policy; and international relations for top management decisions. Includes comprehensive case analyses. Required for business administration majors. Prerequisites: senior standing, 282, 350, 364, 370. I II (4)

456 HONORS SEMINAR

457 PRODUCTIVITY AND THE QUALITY OF WORK LIFE

Examination of the sociotechnical determinants of organizational and individual productivity, with subsequent exploration of issues that affect quality of work life in service and manufacturing industries. Prerequisite: 354. I (4)

458 ADVANCED HUMAN RESOURCE ADMINISTRATION

Detailed coverage of modern human resource procedures: job analysis, employee selection, training and career development, compensation, safety and health, labor relations. Review of the legal context of employment practices. Prerequisite: 354. I (4)

461 PORTFOLIO MANAGEMENT

Discussion of sound portfolio management techniques: Security selection and construction of efficient asset portfolios; measuring investment performance; capital market efficiency; selected recent developments in portfolio analysis. Emphasis on risk and return relationships of securities and portfolios. Prerequisites: CSCI 220 (or equivalent), ECON 150, MATH 128 (or equivalent), STAT 231, BA 281, 364. I (4)

464 FINANCIAL PLANNING AND CONTROL

Intensive analysis of major financial decisions; financial planning and budgetary control; mergers and acquisitions; prediction of corporate failure; bond refunding; new equity issues; recent developments in capital structure theory as applied to financial decisions. Emphasis on decision making. Prerequisites: CSCI 220 (or equivalent), ECON 150, MATH 128 (or equivalent), STAT 231, BA 281, 364. II (4)

470 MARKETING MANAGEMENT

Analytical approaches for the solution of marketing problems, developing strategies, planning and administering comprehensive marketing programs; evaluation and control of marketing operations. Prerequisite: 370, CSCI 220 (or equivalent). I II (4)

471 MARKETING RESEARCH AND CONSUMER BEHAVIOR

Techniques and uses of marketing research in the business decision-making process. Emphasis on research design, various survey methods, research instruments, and sampling plans as they relate to marketing consumer products and services in a changing environment. Contemporary behavioral science concepts to be examined and incorporated in selected marketing projects. Prerequisites: 370, CSCI 220 (or equivalent). I II (4)

472 ADVERTISING AND SALES MANAGEMENT

Role of advertising and personal selling in the marketing program; analysis of market targets; developing market potentials; media selection; designing the promotional message; evaluation and control of the promotional mix. Prerequisite: 370. I II (4)

473 INDUSTRIAL MARKETING AND PURCHASING

Analysis of the industrial buying and selling process; purchasing policies and procedures; selection of sources of supply; contract analysis and negotiation; marketing problems of manufacturers of industrial goods; developing and implementing industrial marketing strategies. Prerequisites: 350, 370. II (4)

474 INTERNATIONAL MARKETING

Introduction to marketing problems and opportunities facing U.S. firms which conduct business in an international context. Covered are the changes necessary in marketing programs whenever business transactions cross international boundaries. Also examined are the economic and cultural forces that make these changes necessary. Prerequisites: 370, ECON 331. I (4)

481 CONTEMPORARY ISSUES IN ACCOUNTING

Exploration of current issues and trends in the conceptual framework of accounting, the environment in which accounting operates, and the problems of communicating financial information useful to decision-makers. Prerequisites: 281, 381, 382, or consent of instructor. (4)

483 INCOME TAXATION

Comprehensive study of income tax concepts, regulations, and tax planning principles. Emphasis on individual and business income taxation. Prerequisite: 281. I II (4)

B

484 AUDITING

Comprehensive study of auditing concepts and procedures; analysis of risk through the study and evaluation of internal controls, both administrative and accounting controls, and through the study and evaluation of account balances; reporting of risk; review of the development and meaning of professional responsibility and ethics; review of operational auditing. Prerequisites: 281, 282, 381, 382. I II (4)

487 ACCOUNTING INFORMATION SYSTEMS

Application of information systems concepts to the basic accounting information systems and the expansion of traditional accounting models to include the computerized information systems approach. Topics include manual accounting systems, reporting objectives, procedures for systems analysis and design of accounting systems, behavioral aspects of systems design, audit trail, internal control, legal environment, audit requirements, and computer processing technology. Prerequisites: 281, 282, CSCI 220 (or equivalent). I II (4)

490 SEMINAR

Seminar on specifically selected topics in business. Offered on demand. Prerequisite: consent of instructor. (4)

491 DIRECTED STUDY

Individual studies; readings on selected topics approved and supervised by the instructor. Prerequisite: consent of instructor. (1-4)

501 FUNDAMENTALS OF ACCOUNTING AND FINANCE

Fundamental assumptions, principles, and procedures underlying accounting; transaction analysis and the fundamental accounting model; matching of expenses with revenue; measurement and reporting of income statement and balance sheet accounts; consolidated statements; and using and interpreting financial statements. Theoretical framework for financial decisions; decision theory relative to working capital management, short and intermediate-term financing, capital investments and valuation, capital structure and dividend policy, and long-term financing. I II (4)

502 FUNDAMENTALS OF MANAGEMENT AND MARKETING

Principles and processes of administration. Techniques and functions of planning, organizing, directing, and controlling. The flows of goods and services in the economy; economic and behavioral approaches to the analysis of demand; the marketing functions in business firms. Determination of the marketing mix. I II (4)

503 MANAGEMENT USE OF COMPUTERS

An introduction to computer systems and their uses in industry. Topics include understanding fundamental components of computer languages, statistical packages such as SPSS-x and minitab, word processing, and spreadsheet construction. Prerequisite: ECON 500 (may be concurrent). III (2)

520 PROGRAMMING FOR MANAGERS

Computer programming including branching, looping, subroutines, input/output, character manipulation, subroutines, file manipulations, data storage and retrieval. Advanced work with software packages. Prerequisite: 503. (4)

521 INFORMATION SYSTEMS DESIGN

System development processes. Information analysis and logical specification of the system. Emphasis on the iterative nature of the analysis and design process. Prerequisites: 501, 503, 582. (4)

528 SEMINAR IN MANAGEMENT INFORMATION SYSTEMS

In-depth study of selected topics related to management information systems (MIS). Projects will entail application to the functional areas of business. Prerequisites: 501, 520, 521 (or 587), 582. (4)

535 LEGAL ASPECTS OF THE MANAGEMENT PROCESS

Survey of federal and state laws, rules, and regulations that directly impinge on the manager's decision-making in the modern business enterprise. Includes legal implications for the individual manager and his/her corporation that follow from business decisions in areas such as employee relations, consumer protection, security and exchange regulations, rights of corporate shareholders and creditors, antitrust laws, and environmental protection. (4)

550 ORGANIZATIONAL BEHAVIOR AND ENVIRONMENT

The study of open sociotechnical systems within which a manager must operate. It encompasses three major perspectives: the external organization environment, including legal, ethical, social, economic, and political influences; the organization itself as an entity; and the internal organization environment. Prerequisite: 502. I II (4)

551 OPERATIONS MANAGEMENT AND SYSTEMS SEMINAR

Analytical approaches to operational management; the relationship of production to other functions and external factors; case studies of modern techniques/methodologies as applied in selected situations and industries; quantitative models, systems design and computers. Prerequisites: 503, 550; ECON 500, 543. I III (4)

553 CONTEMPORARY ISSUES IN MANAGEMENT

Investigation of the roles of managers in the modern society. The exploration includes, but is not limited to the topics of corporate responsibility, ethical issues in management, and the impact of technological change on organizations and society. The workshop approach to these topics combines the use of cases, readings, discussions, and simulations. Prerequisites: 550. ECON 504. (4)

554 PLANNED ORGANIZATIONAL CHANGE

Detailed examination of techniques for diagnosing administrative problems requiring change, and for planning, implementing, and evaluating changes undertaken through systematic programs of individual, group, and organization development. Emphasis on the problem assessment skills of internal change agents and on interventions aimed at structural changes, management training, and career development. Prerequisite: 550. II (4)

555 BUSINESS STRATEGY AND POLICY

An integrated management approach based on decision-making analysis in complex cases and comprehensive field situations. Advanced readings and library research integrate concepts of management and business functions including consideration of legal, social, and international aspects of the business environment. Prerequisites: 551, 564, and 570, any one of which may be taken concurrently with 555. I II (4)

561 INVESTMENT ANALYSIS AND MANAGEMENT

Introduction to the nature, problems, and processes of evaluating particular securities and portfolio construction and administration. Special attention to the risk and rate-of-return aspects of particular securities, security portfolios, and total wealth. Prerequisites: 501, ECON 543. I (4)

564 FINANCIAL MANAGEMENT SEMINAR

Analysis of optimal financial policies. Intensive investigation of the valuation process and its resulting impact on firm investment, financing, and dividend policies. Discussion of the modern theory of financial structure and policy, as well as major case analysis. Emphasis on the application of contemporary financial theory and analytical techniques to the solution of complex financial problems. Prerequisites: 501, 503; ECON 504, 543. I II (4)

570 MARKETING MANAGEMENT SEMINAR

Marketing management policies and programs; interrelated elements of the marketing mix and the relationship of marketing to other internal functions; changing social and legal environment, innovation, and modern marketing philosophies. Prerequisites: 502, 503; ECON 504, 543. I II (4)

581 SEMINAR IN FINANCIAL ACCOUNTING THEORY

Advanced accounting concepts and standards; current problems and trends reflected in accounting literature; designed for professional accountants. (4)

582 ACCOUNTING INFORMATION AND CONTROL

Applications of accounting information, services, and systems to management problems. Prerequisite: 501, 503. I II (4)



587 FINANCIAL INFORMATION SYSTEMS

Expansion of traditional accounting information flow models to include computerized systems. Emphasis on the financial information needs of management and the resulting systems requirements. Prerequisites: 501, 520, 582.

590 SPECIAL SEMINAR

Selected advanced topics; offered on demand. (4)

591 INDEPENDENT STUDY

Individual reading and studies on selected topics; minimum supervision after initial planning of student's work. Prerequisite: consent of instructor. (1-4)

593 THESIS

Research study to meet Thesis Option requirement for elective in the M.B.A. degree program. (4)

Chemistry

Chemistry

The history of civilization is inseparable from the history of chemistry. Everything that occurs in nature—from mental processes and behavior, to the furniture we live around, to the tools we use for work or play, to the problems of pollution—is chemically based. Chemistry seeks to understand the fundamental nature of matter, the changes in its composition, and the energy changes accompanying these changes. Use of this knowledge influences our lives in many profound ways. Whether interested in the chemical profession itself, including biochemistry, polymer chemistry, radiation chemistry, and other specialties, or in chemistry in conjunction with other fields such as business, the social sciences, and the humanities, students will have suitable programs available to meet their interests at PLU. Diversity in career planning is a key concept in the chemistry department. Programs are available which are broadly applicable to the health, biological, physical, environmental, behavioral, and fundamental chemical sciences.

The chemistry department's courses, curriculum, faculty, and facilities are approved by the American Chemical Society. The staff of eight persons with doctorates has composite expertise in virtually every field of pure and applied chemistry. The faculty are very active in basic and applied research, and most are also significantly involved in the community, applying their expertise to enhance the quality of life of the citizens.

The department uses numerous scientific instruments in the laboratories. Such major research and teaching equipment includes: *nuclear magnetic resonance, infrared, ultra-violet, visible, atomic absorption, flame photometry, emission, and electron spin resonance spectrometers; X-ray crystallographic diffractometer; gas and liquid chromatographs; precision refractometer; dipolometer; scintillation counter; zone refiner; a complex microprocessor system; and a fluorometer.*

Faculty research projects involving student participation are in progress in many important fields of chemistry. Some of the general areas are: *polymer structure and properties, synthesis of heterocyclic compounds, fungal and chemical cleavage of lignin, structural and magnetic studies of inorganic complexes, organic kinetics, photochemical reactions, the role of nutrition in health, and the biochemistry of drug actions.*

FACULTY

Giddings, Chair; C. Anderson, Huestis, Nessel, Swank, Tobiason, Tonn.

Degrees in chemistry are the Bachelor of Arts and the Bachelor of Science for students wishing to structure their undergraduate education around a full chemistry major. The B.A. program is the minimum preparation suitable for further professional studies and is often combined with extensive study or a second major in an allied field. The B.S. program involves additional chemistry courses and serves both students going directly into employment on graduation and those going into graduate programs. It is offered with emphasis in chemistry, biochemistry, or chemical physics. The first option is an American Chemical Society certified program. The latter two options are offered in cooperation with the biology and physics departments for students wishing to work at the interfaces between chemistry and biology or physics.

Students contemplating a major in chemistry are invited to discuss their interests and plans with members of the chemistry faculty at the earliest possible time. They may also inquire about opportunities for honors work in chemistry.

Students deciding to major in chemistry should officially declare their intent after having completed Chemistry 331 and after consultation with a faculty adviser in the chemistry department. Transfer students desiring to major in chemistry should consult a departmental adviser no later than the beginning of the junior year.

The foreign language requirement of the College of Arts and Sciences should preferably be met in German or Russian.

The chemistry department considers computer usage to be an increasingly important tool in professional and personal activities. Further, laboratory work in the department places considerable emphasis on computer use. Therefore, the department strongly recommends that a student planning to major in chemistry take at least one two-credit hour course in computer science.



C

Chemistry

BACHELOR OF ARTS MAJOR: Chemistry 115, 116, 321, 331, 332, 333, 334, 341, 342, 343, 460. Required supporting courses: Physics 147, 148, 153, 154; Math 151, 152.

BACHELOR OF SCIENCE MAJOR (three alternatives):

1. *General-leads to American Chemical Society certification:* Chemistry 115, 116, 321, 331, 332, 333, 334, 341, 342, 343, 344, 405 or 450 or 456, 435, 460, 490; Physics 147, 148, 153, 154; Math 151, 152. For American Chemical Society certification, 450 and either 405, 456, or Cooperative Education 476 are required.
2. *Biochemistry emphasis:* Chemistry 115, 116, 321, 331, 332, 333, 334, 341, 343, 403, 405, 435, 460, 490; Biology 155, 156, 253, 254; four hours selected from Biology 322, 326, 331, 346, 359, 375, 385, 441; Physics 147, 148, 153, 154; Math 151, 152.
3. *Chemical-physics emphasis:* Chemistry 115, 116, 331, 332, 333, 334, 341, 342, 343, 344, 460; Physics 147, 148, 153, 154, 331, 332, 336, 356; Math 151, 152, 253.

Generalized Chemistry Curriculum for the B.S. Degree

FALL	SPRING
Freshman (1)	
Chem. 115	Chem. 116
Math 151	Math 152
Physics 153 or Biology 155 (2)	Physics 154 or Biology 156 (2) (or core course)
Optional fourth course (3)	
PE 100 or activity	PE 100 or activity
Sophomore	
Chem. 331, 333	Chem. 332, 334
Physics 153 or Biology 155 (2)	Physics 154 or Biology 156 (2)
Two additional courses	Two additional courses
Junior	
Chem. 341, 343	Chem. 342, 344
Chem. 321	Core course(s)
Core course(s)	Electives
Electives	
Senior	
Chem. 460	Chem. 435
Chem. 490	Electives
Electives	

- (1) Refer to the Division of Natural Sciences section of this catalog for other beginning curriculum options.
- (2) The department stresses the importance of taking physics during either the freshman year or the sophomore year. This permits a better understanding of chemistry and enables a student to complete degree requirements with no scheduling difficulties in the junior and senior years.
- (3) Students desiring to fulfill the College of Arts and Sciences foreign language requirement under Option I, or who desire to attain or maintain a language proficiency, should take a language course as part of their optional course selections.

BACHELOR OF ARTS IN EDUCATION: Students interested in this degree develop their chemistry program through the department in conjunction with the School of Education. See School of Education section.

CHEMICAL ENGINEERING: Students interested in pursuing studies in chemical engineering should see the course outline in the Physics-Engineering section of this catalog. The 3-2 engineering program sequence should be followed through the first year with Chemistry 115 and 116 taken in place of General Physics. General Physics and Organic Chemistry should be taken during the second year. The department chair should be consulted for assignment of a program adviser.

MINOR: 22 semester hours, including 115, 116, 321, 331, 332, 333, and 334, completed with grades of C or higher.

COURSE OFFERINGS

104 ENVIRONMENTAL CHEMISTRY

Basic principles of chemical structure and reactions, with applications to human activities and the natural environment. No prerequisite; students without high school chemistry are encouraged to take 104 before taking 105 or 115. Physical therapy and military nursing programs requiring a year of chemistry should include 104 and 105. Also suitable for environmental studies, general science teachers, B.A. in earth sciences, and general university core requirements or College of Arts and Sciences option III. I (4)

105 CHEMISTRY OF LIFE

General, organic, and biochemistry pertinent to chemical processes in the human organism; suitable for liberal arts students, nursing students, and prospective teachers. Students who have not completed high school chemistry are encouraged to take 104 before taking 105. II (4)

115, 116 GENERAL CHEMISTRY

First semester topics include the structure of matter, atomic and molecular theory, states of matter and quantitative relationships. Second semester topics include kinetics, chemical equilibrium, thermochemistry, study of the elements grouped according to the periodic table, radio-chemistry, and inorganic qualitative analysis. Designed primarily for students who want to major in biology, chemistry, engineering, geology, or physics. Includes all premedical, pre dental, pharmacy, medical technology students, and students planning to transfer to some university dental hygiene programs. High school chemistry or permission of instructor required. Students with no high school chemistry or weak mathematical background should take 104 before this course. Corequisite: MATH 133. Prerequisite: 115 for 116; I for 115, II for 116. (4, 4)

210 NUTRITION, DRUGS, AND THE INDIVIDUAL

An introduction to basic metabolic interactions, general endocrinology, mind and body interactions, and roles of drugs in modifying biological and behavioral functions. Nutrition topics will include food preparation, "the balanced meal philosophy," nutritional myths, the effects of stress, environmental and societal influences on diet. Prerequisites: one year of high school chemistry or equivalent suggested. Meets general university core requirements. I (4)

321 ANALYTICAL CHEMISTRY

Chemical methods of quantitative analysis, including volumetric, gravimetric, and selected instrumental methods. Prerequisites: 116 and MATH 133. I (4)

331, 332 ORGANIC CHEMISTRY

An interpretation of properties and reactions of aliphatic and aromatic compounds on the basis of current chemical theory. Prerequisite: 116. Corequisites: 333, 334. I II (4, 4)

333, 334 ORGANIC CHEMISTRY LABORATORY

Reactions and conventional and modern techniques of synthesis, separation, and analysis of organic compounds. Must accompany 331, 332. I II (1, 1)

336 ORGANIC SPECIAL PROJECTS LABORATORY

Individual projects emphasizing current professional-level methods of synthesis and property determination of organic compounds. This course is an alternative to 334 and typically requires somewhat more time commitment. Students who wish to prepare for careers in chemistry or related areas should apply for departmental approval of their admission to this course.



C

Chemistry

**341, 342 PHYSICAL CHEMISTRY**

The relationship between structure, energy content, and physical and chemical properties of chemical systems. Topics in thermodynamics, statistical thermodynamics, quantum mechanics, atomic and molecular structure, spectroscopy, and kinetics are covered. Many examples are related to biological systems. Prerequisites: 115, MATH 152, PHYS 154. I II (4, 4)

343, 344 PHYSICAL CHEMISTRY LABORATORY

Experiments in thermodynamics, solution behavior, and molecular structure designed to acquaint students with instrumentation, data handling, correlations with theory, and data reliability. Computer usage is encouraged. Corequisite or prerequisite: 341, 342. I II (1, 1)

360 INORGANIC CHEMISTRY: A NON-CALCULUS APPROACH

Offered simultaneously with 450. Includes separate problems and some separate lectures. a/y II (3)

403 BIOCHEMISTRY

An overview, including biochemical structures, mechanisms of reactions, metabolism, genetics, basic pharmacology relevant to mechanisms of reactions, and the biochemistry of the cell. Majors are encouraged to take both 403 and 405 for a more complete understanding of biochemistry. Also for B.A. majors and non-majors interested in biochemistry as a supporting field of knowledge. Laboratory designed to stimulate creativity and problem-solving abilities through the use of modern biochemical techniques. Prerequisites: 332, 334. I (4)

405 BIOCHEMISTRY

A study of chemical reactions and structures in living cells. Topics include enzyme kinetics and mechanisms of catalysis, metabolism, and biochemical genetics. Concepts introduced in Physical Chemistry and Biochemistry will be applied in this course. Designed for students interested in graduate school or research. Prerequisites: 332, 334, 342 or permission, 403. II (2)

435 INSTRUMENTAL ANALYSIS

Theory and practice of instrumental methods along with basic electronics. Special emphasis will be placed on radiochemical, mass spectrometric, chromatographic, and electrometric methods. Prerequisites: 321, 341, 343. II (4)

450 INORGANIC CHEMISTRY

Techniques of structural determination (IR, UV, VIS, NMR, X-ray, EPR), bonding principles, non-metal compounds, coordination chemistry, organometallics, donor/acceptor concepts, reaction pathways and biochemical applications are covered. Laboratory will include synthesis and an in-depth exploration of the physical properties of non-metal, coordination and organometallic compounds. Prerequisites: 331, 332, 342. a/y II (3)

456 POLYMERS AND BIOPOLYMERS

A course presenting the fundamentals of polymer synthesis, solution thermodynamic properties, molecular characterization, molecular weight distributions, and solution kinetics. Free radical, condensation, ionic, and biopolymer systems are covered, with illustrated applications taken from the medical, engineering, and chemical fields. The one-credit laboratory examining polymer synthesis through experiments is optional. Prerequisites: 341, 342. a/y II (3)

460 SEMINAR

Presentation by students of knowledge gained by personal library or laboratory research, supplemented with seminars by practicing scientists. Participation of all senior chemistry majors is required and all other chemistry-oriented students are encouraged to participate. Seminar program will be held during the entire year but formal registration will be in the spring semester. I II (1)

490 INTRODUCTION TO RESEARCH

A course designed to introduce the student to laboratory research techniques, use of the chemical literature, research proposal and report writing. Emphasis will be on the student developing and making progress on an independent chemical research problem chosen in consultation with a member of the chemistry faculty. Prerequisite: 342. I (2)

491 INDEPENDENT STUDY

Library and/or laboratory study of topics not included in regularly offered courses. Proposed project must be approved by department chair and supervisory responsibility accepted by an instructor. May be taken more than once. I II (1, 2, or 4)

497 RESEARCH

Experimental or theoretical investigation open to upper division students with consent of department chair. May be taken more than once. Generally will consist of an expanded study of the research project developed in 490. I II (1, 2, or 4)

597, 598 GRADUATE RESEARCH

Open to master's degree candidates only. Prerequisite: consent of department chair. I II (2-4)

C

College of Arts and Sciences

College of Arts and Sciences

Division of Humanities

English
Languages
Philosophy
Religion

Division of Natural Sciences

Biology
Chemistry
Earth Sciences
Mathematics and Computer Science
Physics and Engineering

Division of Social Sciences

Anthropology
Economics
History
Political Science
Psychology
Social Work and Marriage and Family Therapy
Sociology

Degrees Offered

Bachelor of Arts
Bachelor of Science

MAJOR REQUIREMENT

A major is a sequence of courses in one area, usually in one department. A major should be selected by the end of the sophomore year. The choice must be approved by the department chair (or in the case of special academic programs, the program coordinator). Major requirements are specified in this catalog. The quality of work must be 2.00 or better. D grades may be counted toward graduation but not toward a major.

Recognized majors are:

Anthropology	Legal Studies
Art	Mathematics
Biology	Music
Chemistry	Norwegian
Classics	Philosophy
Communication Arts	Physical Education
Computer Science	Physics
Earth Sciences	Political Science
Economics	Psychology
Engineering	Religion
English	Scandinavian Area Studies
French	Social Work
German	Sociology
History	Spanish

Not more than 40 semester hours earned in one department may be applied toward the bachelor's degree in the College.

FOREIGN LANGUAGE/ALTERNATIVE REQUIREMENTS

In addition to meeting general university requirements, candidates in the College must meet the requirements of Option I, II, or III:

- I. 16 semester hours in one foreign language*
- II. 8 semester hours in one foreign language*
 - 4 semester hours in logic, math/computer science, or statistics
 - 4 semester hours in history, literature, or language
- III. 4 semester hours in history, literature, or language
 - 4 semester hours in social science, which may include geography
 - 4 semester hours in natural science, excluding math and geography
 - 4 semester hours in logic, math/computer science, or statistics

*Option I may be satisfied by four years of high school study in one foreign language. If students have less than four years, placement and credit should be determined by examination. Freshmen planning to continue in a foreign language begun in high school should take the College Board Placement Test offered during orientation. (This test is required of those freshmen who plan to study German, French, or Spanish.) Continuation of a foreign language should not be deferred.

Students with 2-3 years of high school language who wish to continue should register for the second year course. Students may receive credit for any language course in which they are placed without regard to high school credit. Final decision of placement is made by the Department of Languages. Students may not receive credit if they voluntarily select a course level lower than that in which the department places them.

The foreign language requirement in Option II may be met by satisfactory scores on a proficiency examination or by more than two years of high school work in a single language. Two years are sufficient if the grade point average for the total units in that language is 3.00.

Candidates for the B.A. in English, or for the B.A. in Education with concentration in English, must meet Option I.

No course will be allowed to meet both general university requirements and College of Arts and Sciences requirements. Where possible, courses taken to fulfill such requirements shall be in different areas.



Communication Arts

In order to explore fully their potential as human beings, people must first expand their abilities to communicate. Communication is the process by which feelings and ideas are shared and is the foundation on which learning rests. Providing a field for both humanistic and scientific research, the communication arts focus on how and why people communicate through language (both spoken and written) and through nonverbal means. The effects of all forms of human communication are also studied.

Within the Department of Communication Arts, four distinct, yet interrelated areas of human communication may be explored: broadcasting, journalism, interpersonal communication, and theater. Students majoring in any of these areas articulate and test their ideas, develop their individual abilities, and gain competence in various strategies for improving effective communication. They acquire knowledge and skills that apply to nearly every aspect of their private and public lives.

Career prospects for students trained in communication are excellent. A person's career may ultimately turn out to be quite different from what was originally anticipated, of course, but in a rapidly changing world, certain fundamental skills and resources are necessary for adaptation and success. As the work environment in the coming decades becomes increasingly oriented toward communications, it will be critically important for students to have the ability to communicate clearly and effectively, both orally and in writing. Those who major or minor in one of the communication arts will be far ahead of their contemporaries who neglect to prepare for the world of tomorrow.

FACULTY

Spicer, Chair; Bartanen, Becvar, D. Carr, Doughty, Gillette, Nordholm, Parker, Rowe, Ruidl, G. Wilson.

BACHELOR OF ARTS MAJOR: 40 semester hours in any of the areas of concentration:

1. Broadcasting-Required Courses: 123, 171, 233, 283, 373, 374, 378, 381, plus 8 hours from communication arts courses selected in consultation with adviser. Required supporting areas: 4 hours each in economics, history, and political science plus 8 additional hours in one of those areas. Students must earn a grade of B in 283 or have the instructor's permission in order to advance in the sequence.

2. Interpersonal Communication-Required Courses: 123, 233, 283, 326, 328 (or 234 plus an additional 2 hours), 435, 436, plus 12 hours from communication arts courses selected in consultation with adviser. Students electing a public relations emphasis are required to take 123, 171, 233, 283, 285, 326, 328 (or 234 plus an additional 2 hours), 330, 435, and 436.
3. Journalism-Required Courses: 123, 171, 233, 283, 380, 381, 384, 480, plus 8 hours from communication arts courses selected in consultation with adviser. Required supporting areas: 4 hours each in economics, history, and political science plus 8 additional hours in one of those areas. Students must earn a grade of B in 283 or have the instructor's permission in order to advance in the sequence.
4. Theater-Required Courses: 123, 151, 225, 241, 250, 356, 357, 363, 364, 425, plus 6 hours from communication arts courses selected in consultation with adviser.

In addition to requirements listed above, candidates for the B.A. degree must meet the foreign language requirement in the College of Arts and Sciences.

BACHELOR OF FINE ARTS MAJOR: At least 52 semester hours plus 2 practicums in any of the two areas of concentration:

Broadcasting-Required Courses: 123, 171, 233, 283, 373, 374, 378, and 381, plus 20 hours selected in consultation with adviser.

Theater-Required Courses: 123, 151, 241, 250, 356, 357, 363, 364, and 454, plus 16 hours selected in consultation with adviser.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

MINORS

Interpersonal Communication: 20 hours including 123, 171, 233, 326 or 328, 435 or 436, plus 8 hours from communication arts courses selected in consultation with adviser. Students electing a public relations emphasis are required to take 123, 171, 233, 283, 285, and 330, plus 4 hours from communication arts courses selected in consultation with adviser.

Theater: 28 hours including 123, 151, 241, 250, 357, and 454, plus 4 hours from communication arts courses selected in consultation with adviser.

The Dance Minor is cross-referenced with the School of Physical Education. See the description of that minor under Physical Education.

The Publishing and Printing Arts Minor is cross-referenced with the Department of English. See the description of that minor under English.

Only the following courses from Communication Arts may be used to meet the core requirement in the arts: 151, 162, 241, 250, 359, 363, 364, 458.

COURSE OFFERINGS

123 FUNDAMENTALS OF HUMAN COMMUNICATION

Foundations course that introduces the student to a variety of communication contexts. Emphasizes three areas: communication concepts, interpersonal communication, and public speaking. I II (4)

151 STAGE TECHNOLOGY

Basic theory and procedure of technical aspects in set building, costume construction, basic drafting, scenery, the assembling, handling, management of the stage, and extensive shop work. I (4)



C

Communication Arts

162 HISTORY OF AMERICAN FILM

Concentrates on the development and growth of the motion picture in the United States from 1895 to the present. Emphasis on the film director, whose implementation of film technique and theory serves as the formative artistic force in the cinema. Societal influences such as economic factors, public attitudes and mores, and political positions reflected in the United States throughout the past 75 years, which provide the film media with shape and thematic focus, will provide parallel points of reference. (4)

171 MASS MEDIA

Survey of the mass media. History, organization, and mechanics of print and broadcast media. Role of mass communication in developing the political, social, and economic fabrics of a democratic society. Analysis of the journalist's audience, journalistic vocations, and social and legal responsibilities of the media. (4)

225, 425 COMMUNICATION ARTS PRACTICUM

One semester hour credit may be earned each semester, but only 4 semester hours may be used to meet university requirements. Majors are required to take at least two practicums in one or a combination of the three areas of interest. Students put classroom theory to practical application by individually completing a project relating to an aspect of communication. An instructor in the area of interest must approve the project and agree to provide guidance. I II

233 FOUNDATIONS OF COMMUNICATION THEORY

An introduction to the theoretical concepts and research tools of interpersonal and mass communication research. Prerequisite: 123 or consent of instructor. (4)

234 INTRODUCTION TO RESEARCH IN COMMUNICATION

The study of methods of gathering, interpreting, and evaluating data in the study of human communication. Both quantitative and qualitative research methods. (2)

236 INTERPERSONAL COMMUNICATION

The study of theories and variables relating to the nature of and problems involved in the communication of individuals on a one-to-one basis. (2)

241 ORAL INTERPRETATION OF LITERATURE

The art of communicating the essence of a piece of literature to an audience; interpreting it experientially, logically, and emotionally. Individual and group performance. I II (4)

250 FUNDAMENTALS OF ACTING

An examination of the work of actors and actresses, their natural and learned skills; exercises in memory, imagination, and observation; improvisations and scenes from modern plays. (4)

283 NEWS WRITING

Basic news and feature writing for print and broadcast media with special attention to clarity, accuracy, and deadlines. Most writing done in class under deadline. Techniques of interviewing and fact-gathering. News staff organization and procedures. Prerequisite: 171 or concurrent enrollment. I (4)

322 MEN, WOMEN, AND COMMUNICATION

Introduction to the means by which appropriate gender roles are communicated by the mass media and the ways in which cultural gender role definitions influence how people communicate with each other. Prerequisite: 123 or consent of instructor. (2)

323 WORDS, PEOPLE, AND SOCIETY

Examination of how language affects one's interpretation of the world. Focus on the use of symbols, particularly in relation to the mass media. Prerequisite: 123 or consent of instructor. (2)

324 NONVERBAL COMMUNICATION

Focus on the nonverbal aspects of communication within the framework of interpersonal interaction. Prerequisite: 123 or consent of instructor. (2)

325 TOPICS IN COMMUNICATION

Various content, dependent on faculty assessment of student needs and interests. Topics announced during the fall semester preceding the course offering. Prerequisite: 123 or consent of instructor. (2)

326 GROUP COMMUNICATION

Survey and analysis of small group communication theory and research. II (4)

328 ARGUMENTATION

The study of reason-giving in social decision-making. Analysis of the genres, forms and techniques of arguers. Particular emphasis is given to studying academic, legal, and public policy debates. (4)

330 PUBLIC SPEAKING

Focus on a variety of speaking situations and presentational methods. Topics vary according to the skill level of course participants. Potential topics include audience analysis, technical reporting, using visual aids, and persuasion. Open to both majors and non-majors. (4)

356 STAGE LIGHTING

Stage lighting from the basic development of electricity and lighting instruments to the complete design of lighting a show. II (4)

357 INTERMEDIATE ACTING, THE ACTOR AT WORK

Study of the actor on today's stage. Work on the analysis and performance of the modern realistic play. Practical experience in the art of the actor through performance of scenes from plays of the modern theater, emphasis on the importance of play analysis by the actor, and examination of current acting theory. Prerequisite: 250. (4)

358 ADVANCED ACTING

Study of the work of an actor; character analysis and embodiment, using scenes from plays; includes styles of acting as defined by historical period. Prerequisite: 357. II (4)

359 ACTING FOR THE NON-ACTOR

Study of the actor's craft and the implementation of theory. Specifically designed for those who have nourished a curiosity to explore the art of acting but have been intimidated by a lack of knowledge or prior experience. Introduction of acting theory to those who have never participated in any theatrical endeavor. Emphasis on individual awareness and interest. Not open to theater majors or minors. (4)

363 HISTORY OF THE THEATER: AESCHYLUS THROUGH TURGENIEV

Theater as it evolved from its primitive origin through representative societies; Ancient Greece, Rome, Renaissance, modern European and American. Emphasis on religious, philosophical, and political thought as reflected in the drama of each period. I (4)

364 HISTORY OF THE THEATER: IBSEN THROUGH TO THE PRESENT

(See description for 363.) II (4)

373 AUDIO PRODUCTION

Elements of audio production; analysis of program design, scripting, and production tools and techniques. Lecture and laboratory. Prerequisite: 283 or consent of instructor. (4)

374 VIDEO PRODUCTION

Analysis and application of program design, writing and production tools and techniques. Lecture and laboratory. Prerequisite: 373. (4)

378 BROADCAST JOURNALISM

Techniques of broadcast journalism. Applications of news gathering, writing and reporting in a broadcast context. News and feature assignments using broadcast equipment in the field and studio. Prerequisite: 374. (4)

380 NEWSPAPER EDITING, LAYOUT, AND DESIGN

Selection and editing of news copy and headline writing. Selection, sizing, and cropping of photos. Functions of layout. Principles of newspaper design and their practical applications. Prerequisite: 283. (4)

381 MEDIA LAW AND PRINCIPLES

The theory and application of law in news gathering, publishing, and broadcasting. (4)

384 ADVANCED NEWS REPORTING

Reporting of politics and police, courts and other governmental functions. Investigative reporting and writing. Blend of field trips and writing exercises. Prerequisite: 283. (4)



388 EDITORIAL WRITING

Research and writing of editorials and commentaries for newspapers and broadcast. Function of the editorial and editorial pages in the news media. Prerequisite: 283. (2)

389 NEWS MEDIA ETHICS

Ethical practices at the corporate, staff, and individual levels within news organizations. (2)

435 ORGANIZATIONAL COMMUNICATION

Communication systems and studies within formal organizations. Focus on theory and research of informational and directive communication as related to channels, structures, status, involvements, morale, and leadership. Prerequisite: 233. (4)

436 PERSUASION

Analysis and evaluation of the dimensions of persuasion in communication emphasizing contemporary theoretical models and research. Investigation of how research and models may be applied in contemporary settings. Prerequisite: 233. (4)

446 WORKSHOP IN EFFECTIVE LISTENING

Examination of listening as a critical communication skill, which can be enhanced through training. Exploration of the art of listening through a week-long series of readings, lectures, discussions, exercises, and practical applications. (2)

450 WORKSHOP IN EFFECTIVE PUBLIC SPEAKING

Audience analysis, topic selection, organization of ideas for various audiences, types of speeches, use of visual aids, and delivery. Designed for both novices and those who have had some experience as speakers. A week-long series of lectures, discussions, readings, exercises, and practical applications to help participants become more comfortable and effective as speakers. (2)

452 SCENIC DESIGN

Artistic and technical development of abilities in designing scenery, costumes, and make-up for plays of all periods; various styles and periods as well as preparation of models, renderings, working drawings, and scenic painting. Prerequisite: 251. II (4)

454 PLAY DIRECTION

The role of the director, historically and critically; an intensive study that is both practical and theoretical in its approach to the art of the play director. Study of many different directing philosophies. Each student is required to direct scenes from plays representative of all periods of theater history. A final project, consisting of a contemporary scene, will culminate the course. Prerequisites: 151, 250, and junior status. II (4)

458 CREATIVE DRAMATICS

Designed to acquaint the student with materials, techniques, and theories of creative dramatics. Students participate in creative dramatics. Intended for elementary and junior high school teachers or prospective teachers, theater majors, religious leaders, youth and camp counselors, day care workers, social and psychological workers, and community theater leaders interested in working with children. S (4)

475 ADVANCED MEDIA PRODUCTION

Producing, scripting, directing, performing and evaluating sophisticated audio and video programming. Prerequisite: 378. (4)

480 IN-DEPTH AND INVESTIGATIVE REPORTING

Group reporting in depth on a single issue. Students select the subject, organize the staff, research and interview, provide illustrations, edit copy, and lay out the completed work. Submission of students' work to the *Mooring Mast* for possible publication. Prerequisites: 380, 384. (4)

485 INTRADISCIPLINARY PERSPECTIVES IN COMMUNICATION

A seminar to acquaint senior level communication arts majors with the relationship of communication theory, mass communication, and theater as parts of the discipline of human communication. Limited to 16 students who have completed the bulk of their major requirements. Discussion of research and philosophical issues common to the three areas. Students complete a research paper covering some application of the intradisciplinary nature of communication. (4)

491, 492, 493 SPECIAL STUDIES IN COMMUNICATION ARTS

Investigations or research in area of special interest not covered by regular courses; open to qualified junior or senior students. A student should not begin registration for independent study until the specific area for investigation has been approved by a departmental sponsor. (1-4)

596-598 RESEARCH IN COMMUNICATION ARTS

For graduate students only. (1-4)

C

Computer Science



Computer Science

Computer science deals with manipulating stored information, both textual and numerical. By using the ideas of computer science along with a computer system people can actually amplify their thought processes. Already many new ideas in mathematics, physics, engineering, chemistry, economics, and other fields were either suggested, verified, or expanded by the use of computer science. The exploration of the solar system using space probes would have been impossible without computer science. The list of significant advances in knowledge aided by computer science seems endless.

Computer science students study the theory, design, and application of computing systems. The program covers various programming languages, the development and analysis of algorithms, hardware and software design and special topics in such areas as graphics, pattern recognition, data base management, and fault-tolerant computing.

FACULTY: Mathematics and Computer Science

Edison, Chair; Bandy, Batker, Brink, Dollinger, B. Dorner, C. Dorner, Fatland, Glaser, J. Herzog, M. Herzog, McBride, N. C. Meyer, C. L. Nelson, G. Peterson, Spillman, Welsh, Yiu.

BEGINNING CLASSES

There are two beginning level classes in computer science: Computer Science 110 is programming in BASIC and Computer Science 144 is programming in Pascal. Students intending to major in computer science or mathematics or who intend to take more computer science classes are advised to take Computer Science 144 first. Computer Science 110 is for those who want only an introduction to programming. In place of Computer Science 110 a student may take Computer Science 220.

COMPUTER SCIENCE MAJOR

The program is designed to provide sufficient background for advanced study at the graduate level or for entering a professional career. All computer science majors take a core curriculum consisting of an introduction to programming in PASCAL, data structures, digital logic, and assembly language and computer organization (Computer Science 144, 270, 280, and 380).

The core courses form a foundation for upper division work, which may include the study of microprocessors, computer architecture, automata, modeling and simulation, and compilers as well as other topics.

The program is supported by PLU's VAX 11/780 and 11/750 computing systems, which are available for interactive use at a variety of locations on campus. In addition, the department has an Alpha micro system, a Tektronix 4054 graphics computer, two APPLE's, a PDP 11/24 system with UNIX, and five DEC LSI 11 micro systems for student use. Several terminals are available for student use in the Department of Mathematics and Computer Science.

A typical computer science major program is as follows:

Freshman year:	Computer Science 144, 270 Math 151, 152 8 hours laboratory science (or sophomore year)
Sophomore year:	Computer Science 280, 380 Second computer language Math 230 or 331
Junior & Senior years:	Computer science electives (Computer Science 490 may be taken several times with different topics) Math 345, 341

Careers in computer science include designing computers and computer systems and applying computers to areas such as business administration, economics, and the sciences, as well as teaching and research. Students interested in business administration should take courses in the School of Business Administration (including 281, 282, and 387) as well as COBOL. Students interested in the design of computers should take Engineering 271, 272, and 352 (along with Physics 153 and 154). For students interested in the more theoretical aspects of computer science, courses in logic are recommended (Philosophy 233, 341, 342, and 343).

BACHELOR OF ARTS MAJOR: 24 semester hours including Computer Science 144, 270, 280, 380, 2 hours of a second computer language (240 or 242 are suggested) and 6 hours of computer science numbered above 320. Required supporting: Math 151, 152, 230 or 331, 335.

BACHELOR OF SCIENCE MAJOR: 36 semester hours including the computer science core and one of three paths. The computer science core (18 hours) consists of Computer Science 144, 270, 280, 380, and 2 hours of a second programming language (240 or 242 are suggested). The paths are as follows:

Hardware Path requirements	General Path requirements	Software Path requirements
CSCI 470 (2 hrs.)	CSCI 375 (4 hrs.)	CSCI 344 (2 hrs.)
CSCI 480 (4 hrs.)	CSCI 480 (4 hrs.)	CSCI 355 (2 hrs.)
CSCI 488 (2 hrs.)		CSCI 375 (4 hrs.)
EGR 271 (2 hrs.)		
Electives (8 hrs.)	Electives (10 hrs.)	Electives (10 hrs.)

The elective includes any upper division computer science class (numbered above 320), Math 341 or Math 346 or Engineering 272 (for Hardware Path). Required supporting: Math 151, 152, 230 or 331, 335, 345, plus a one-year sequence of a laboratory science (Physics 153-154, Chemistry 115-116, Biology 155-156, or 8 hours of earth sciences; Physics 153-154 is required for the Hardware Path).

Students are urged to complete a minor in an area where computers have wide applicability such as the natural sciences, social sciences, or business. In particular, Engineering 271, 272, and 352 are recommended for students interested in the physical structure of the computer.

MINOR IN COMPUTER SCIENCE: Computer Science 144, 270, 280, and 380 plus 2 hours of a second computer language. Required supporting: Math 151 or 128.

MINOR IN INFORMATION SCIENCE: Computer Science 144, 270, 467, Business Administration 281, 325, plus 4 hours from Business Administration 282, 364, 387, 421. Strongly recommended: Computer Science 242.

MASTER OF ARTS IN COMPUTER APPLICATIONS: See Graduate Catalog.

MASTER OF SCIENCE IN COMPUTER SCIENCE: See Graduate Catalog.

COURSE OFFERINGS

A grade of C or higher is strongly recommended in all prerequisite courses.

110 BASIC

Introduction to interactive computing, branching, looping, subscripts, functions, input/output, subroutines and simple file techniques in the context of the BASIC language. 110 and 220 may not both be taken for credit. Not normally taken by computer science majors. Prerequisites: high school algebra. I II (2)

115 INTRODUCTION TO THE WORLD OF MATHEMATICS AND COMPUTERS (MATH 115)

A study of mathematics and computers in the modern world with a wide variety of applications and a historical perspective. The relationship between mathematics and computers. Elementary computer programming in BASIC. Intended for non-majors with no previous experience with computers. Meets Core I requirement in natural sciences and mathematics (line 3). Prerequisite: high school algebra. I II (4)

144 INTRODUCTION TO COMPUTER SCIENCE

An introduction to computer science including algorithm design, structured programming, numerical non-numerical applications and use of data files. The PASCAL programming language will be used. Prerequisites: MATH 133 or MATH 128 or equivalent. I II (4)

199 DIRECTED READING

Supervised study of topics selected to meet the individual's needs or interests; primarily for students awarded advanced placement in computer science. Admission only by departmental invitation. (1-2)

210 COMPUTERIZED INFORMATION SYSTEMS

Computer systems and their uses in education, commerce, industry and government. BASIC file manipulations, data storage and retrieval. Computerized word processing, business problems in statistics, linear programming, regression and other fields using existing software packages. 210 and 220 cannot both be taken for credit. Prerequisite 110. Prerequisite or corequisite: 110, MATH 128 and STAT 231 or equivalent. I II (2)

220 COMPUTERIZED INFORMATION SYSTEMS WITH BASIC

Introduction to computers and interactive computing. Computer systems and their uses in education, commerce, industry, and government. Programming in the BASIC language using branching, looping, subscripts, input/output, character manipulation, subroutines, file manipulations, data storage and retrieval. Computerized word processing, business problems in statistics, linear programming, regression and other fields using existing software packages. Covers the same material as 110 and 210 together. Students cannot take both 220 and either 110 or 210 for credit. Prerequisite or corequisite: MATH 128 and STAT 231 or equivalent. I II (4)

240 FORTRAN

An accelerated introduction to the FORTRAN programming language. Study of the rules of statement formation. Topics include input/output, computation, branching, looping, data types, and subprograms. Numeric and non-numeric problems will be solved. Some previous experience with programming is recommended. II (2)



242 COBOL

Presentation and application of the COBOL programming language to business problems. Prerequisite: 144 or 110-210 or consent of instructor. I (2)

243 ADVANCED PROGRAMMING LANGUAGES

A study of advanced programming languages such as ADA, C, etc., and the operating system UNIX. Prerequisite: 270. I (2)

270 DATA STRUCTURES

Continuation of Pascal programming techniques and a study of basic data structures including linked lists, trees, queues, stacks and graphs. Applications of these forms to sorting, searching, and data storage will be made. Prerequisite: a grade of C- or higher in 144. I II (4)

280 DIGITAL LOGIC

Boolean algebra and combinatorial logic applied to basic logic circuits, digital arithmetic, data conversion, and other components of a computer. Prerequisite: 144. I II (4)

344 OPERATING SYSTEMS

An introduction to computer operation including batch processing systems, interacting systems, multi-programming systems, storage management techniques and resource control. In addition, the course includes an analysis of the deadlock problem and basic file systems. Prerequisite: 270. I (2)

348 MODELING AND SIMULATION

An applications structured programming course solving various problems. Statistics, data structures, mathematical modeling, simulation, documentation, and team programming techniques will be applied. Prerequisites: MATH 151, CSCI 270 and either MATH 230 or MATH 331. a/y II (4)

355 COMPILERS

An introduction to the organization, specification, and analysis of programming languages. Topics include parsing, data representation, object code, run-time machine structures and optimization. Prerequisite: 270. II (2)

375 DESIGN AND ANALYSIS OF ALGORITHMS

Basic data structures reviewed and applied to the analysis of problems associated with searching, sorting, strings, and minimal paths. Study of the complexity and storage requirements of the algorithms. Use of top-down and structured programming. Prerequisite: 270, MATH 151. I (4)

380 ASSEMBLY LANGUAGE AND COMPUTER ORGANIZATION

Computer assembly language applied to various problems. Topics include data forms, instruction formats, addressing, linking, macro definition, and computer architecture. Prerequisite: 270. I II (4)

385 COMPUTER ARCHITECTURE

An introduction to the structure and operating of large computer systems. Topics include data representation, memory structure, I/O processing, multi-processing systems such as parallel, pipeline, and stack machines. Examples of the architecture of several large systems are analyzed including IBM320, TI ASC, and CDC STAR. Prerequisite: 380. a/y (2)

386 DISTRIBUTED SYSTEMS

An introduction to computer networks and computer communication. Topics include system topology, message and packet switching, bus structures and data-link transmission. Prerequisite: 280. a/y II (2)

449 COMPUTER SCIENCE IN THE SECONDARY SCHOOL

Methods and materials in secondary school computer science teaching. LOGO, PILOT, etc., may be considered. Does not count toward a major in computer science. Prerequisite: 144. I (2)

467 DATA BASE MANAGEMENT

Data structures and storage methods are reviewed. The hierarchical, network, and relational modes are studied. Prerequisite: 270 MATH 151 and 230 or 331. II (4)

470 COMPUTER-AIDED DESIGN OF DIGITAL SYSTEMS

An introduction to the use of CAD systems for digital design. Basic principles of combinational and sequential logic design are reviewed. Simulators, computer hardware description languages, and other computer-aided design tools are developed. Prerequisite: 280. (2)

480 MICROPROCESSORS

Study of microprocessors and their use in microcomputer systems. Data representation, instruction formats, programming, interrupts, I/O interfacing, data communications, available software, and program development studied in lecture and laboratory sessions. Prerequisites: 280, 380. a/y II (4)

488 VLSI DESIGN

An introduction to the design of very large scale integrated systems using computer aided design methods. Topics include MOS devices, fabrication procedures, chip architecture, chip topology, and system timing. Prerequisites: 270, 280. a/y II (2)

490 SEMINAR IN COMPUTER SCIENCE

Selected topics from the list below. I II (2-4)

a. AUTOMATA

Study of the theory of computation. Turing machines, formal languages, recursive theory, complexity, NP-completeness, and the halting problem may be considered. Prerequisites: 375, MATH 335.

b. FAULT TOLERANT COMPUTING

An introduction to the methods of fault detection and location in digital systems and to techniques for the reliable design of computing systems. Topics include: The D-Algorithm, Boolean Difference, Path Testing, Triple Modular Redundancy Design and the design of self-checking checkers. Prerequisite: 280. (4)

c. COMPUTER GRAPHICS

Exploration of techniques used to generate and interpret computer graphics. Transformations, restoration, enhancement software, and other topics, depending upon available equipment and instructor. Prerequisite: 270.

d. PATTERN RECOGNITION

The use of the computer to recognize patterns in data. Topics include artificial intelligence, cluster analysis algorithms, learning algorithms, and pattern processing. Prerequisite: 270.

e. SOFTWARE ENGINEERING

An engineering approach to the development of large software packages. Topics include software requirements definition, structured programming, software design specifications, and software testing. Prerequisite: 270.

f. SWITCHING THEORY

Advanced applications of Boolean algebra to digital system design. Topics include decoding networks, harmonic analysis, ULM's, and cellular logic circuits. Prerequisite: 280.

491, 492 INDEPENDENT STUDY

Prerequisite: consent of department chair. (1-4)

495 COMPUTER SCIENCE RESEARCH

The student becomes involved in an ongoing research project in computer science under the supervision of a faculty member. Prerequisite: consent of instructor. (1-4)

520 ADVANCED DIGITAL DESIGN

Continuation of topics in 280. The design of digital control systems; asynchronous circuits; digital signal processors; digital filters; timing considerations; use of computer-aided design tools. (4)

544 ADVANCED OPERATING SYSTEMS

Continuation of topics in 344 and 385 leading to the development of an operating system. Emphasis on the interaction between the hardware structure and the operating system; operating system data structures; and operating system security. (2)

555 PROGRAMMING LANGUAGE DEVELOPMENT

Continuation of 355; the structure of programming languages; data and control abstractions; compiler implementation; run time management; an introduction to code optimization. (2)

570 MATHEMATICS OF COMPUTER SCIENCE

Survey of the basic mathematical tools required in computer science, including graph theory, network flow analysis, queueing theory and its applications, stochastic models, and transform theory. Prerequisite: MATH 431. (4)

580 MICROPROCESSOR DEVELOPMENT SYSTEMS

Development of software on 8 and 16 bit microprocessors; microprocessor applications; interfacing; microprocessor organization; interrupt structures. (2)

588 PERFORMANCE EVALUATION

A survey of techniques of modeling concurrent processes and the resources they share. Includes levels and types of system simulation, performance prediction, benchmarking and synthetic loading, hardware and software monitors. (2)

590 GRADUATE SEMINAR

Topics vary by semester, including: a) Artificial Intelligence; b) Information Therapy and Coding; c) Microprocessor Interfacing; d) Computer Security. (4)

593 THESIS

Research study to meet thesis option requirement for M.A. or M.S. degree. (1-6)

Cooperative Education

Cooperative Education

Cooperative education assumes that experiential learning can be an appropriate component of any quality educational program. Though it shares this assumption with other experiential learning strategies such as internships, fieldwork placements, and practica, it differs in several respects. Cooperative education introduces students to an educational work experience early in their academic careers and weaves opportunities for work and learning throughout their undergraduate programs, rather than concentrating practical course work at the end. As the name suggests, cooperative education represents a systematic cooperation between the university and a variety of employers in the community.

Although the program's career-related advantages are obvious, its main benefits are educational. Students gain an appreciation of the relationship between theory and application, and may learn—both early and first hand—about new developments in a particular field. Cooperative education provides timely and extended opportunities for developing communication skills orally and in writing. Rather than training students to take their place as mere technicians in the work force upon graduation, a cooperative education program can enable students to become aware of opportunities to contribute creatively to the changing dimensions of work in present-day society.

The university and employers benefit as well. The university develops stronger and more creative connections with its community. Employers derive a more efficient device for training and recruiting. More importantly, the partnership provides a unique opportunity for employers to participate in an important educational service to the community.

TWO MODELS

The Cooperative Education Program accommodates both part-time and full-time work modes. Part-time work, which allows students the opportunity to take on-campus courses concurrently, is labeled the "Parallel Model." A full-time work experience fits under the "Alternating Model." In most cases students will follow one or the other, but some departments or schools may develop sequences that combine both parallel and alternating work modes.

Full-time summer work, for example, would be classified as an alternating cooperative education experience, and many summer jobs provide for learning that relates to students' academic objectives.

THE PROCESS FOR STUDENTS

In order to be eligible for admission into the Cooperative Education Program a student must have completed 30 semester hours and be in good standing.

Students who wish to participate apply to either the Co-op Office (UC 100) or to a Co-op faculty coordinator or sponsor serving this function in specific departments, divisions, or schools. Both written application and personal interview are required in order to determine eligibility, terms for placement, areas of interest, academic requirements, and kinds of positions available.

Students are responsible for their learning activities during their cooperative education position. Each student must seek out and arrange for academic supervision from a faculty coordinator or sponsor. Faculty are responsible for insuring that the work experience provides appropriate learning opportunities, for helping to establish the learning agreement, and for determining a grade.

Learning is facilitated through: (1) use of a "Learning Agreement"; (2) keeping a journal and writing a summarizing paper; (3) periodic contact with the faculty coordinator; (4) attendance at one workshop during the work experience; and (5) an on-site supervisor who accepts the responsibility to function in a resource role.

The learning agreement, developed by each student with the assistance of a faculty coordinator, lists learning objectives with measurable indicators of learning, and also incorporates supplementary resources such as reading materials and participation in work-related training sessions. The learning agreement is signed by the student, the faculty coordinator, the program director, and the work supervisor, each of whom receives a copy.

Students are expected to keep a journal and write a paper that summarizes their learning. The paper should be organized under the following headings: (1) a brief description of the work place and the work environment; (2) discussion of the extent to which the learning objectives were met or ways in which they were modified; (3) discussion of unexpected learnings; (4) identification of areas for future learning; and (5) a summary evaluation of the benefits and problems of the cooperative educational experience.



Contact between the faculty coordinator and the student must be sufficient to allow the coordinator to serve as a resource and to provide academic supervision. Typically this can be accomplished during one or two site visits. Students in a "parallel" cooperative education program may arrange to meet with the coordinator on campus. Those involved in "alternating" programs some distance from campus may maintain contact through periodic phone conferences, when site visits are impractical.

Employers are responsible to provide ongoing, consistent, positive supervision. Work supervisors are to (1) provide opportunities for students to achieve their learning objectives within the limits of their work settings; (2) help students develop skills related to the contextual aspects of the work world (such as relationships with co-workers); and (3) facilitate students' integration into their work setting so that their employment proves valuable and productive.

Students are required to register for at least one credit hour after accepting a Co-op position. Throughout an undergraduate academic career a student may receive a maximum of 16 semester hours of credit in cooperative education.

Barenz, Director.

Earth Sciences

E

Earth Sciences

Earth Sciences explore the components of the physical universe from humanity's existing habitat to the foundations of the earth, and beyond to the planets and the stars. A program of studies in these fields acquaints students with their physical world and provides perspective on human development in time and space. Environmental problems also are approached through the earth sciences, which impart a realistic appreciation of society's dependence on earth's physical resources.

In providing such a perspective, the department fulfills the needs of a variety of students seeking to broaden their liberal arts education, and also provides more specialized knowledge in support of several fields, particularly for minor or major studies leading to careers in resources and environmental management or scientific research.

Situated between the Olympic Mountains and the Cascade Range, the department is ideally located to examine geologic and marine environments, which are unsurpassed for teaching and learning purposes.

Graduates in earth sciences hold positions in the National Park Service, the U.S. Geological Survey, oil and mining groups, and geotechnical engineering, as well as education. The demand for qualified graduates in energy and mineral development has never been higher.

Some fields welcome post-graduate degrees, and to this end, a number of PLU graduates are pursuing master's and doctoral programs at major universities.

COURSE OFFERINGS

276 INTERNATIONAL WORK

An introduction to European culture in relation to work ethics. Clarification of contrasts between American and European work patterns. Students selected to participate in an international cooperative education work experience are required to take this course before the work experience. II (2)

376 WORK EXPERIENCE I

A supervised educational experience in a work setting. Requires the completion of a Cooperative Education Learning Agreement in consultation with a faculty sponsor. (1-8)

476 WORK EXPERIENCE II

A supervised educational experience in a work setting providing for an advanced level of responsibility. Requires the completion of a Cooperative Education Learning Agreement in consultation with a faculty sponsor. (1-8)

FACULTY

Lowes, Chair; Benham; assisted by Huestis, Youngquist.

The department's programs remain flexible, allowing fairly easy scheduling of courses. However, students should notice that upper division courses are offered on a two-year cycle. Early declaration of majors or minors in earth sciences will facilitate development of individual programs and avoid scheduling conflicts.

BACHELOR OF SCIENCE (GEOLOGY) MAJOR: Required courses include: 131, 132, 323, 324, 325, 326, 327, 328, and 390, plus one from 330, 341, or 360; also required is attendance at departmental seminars during junior and senior years. Necessary supporting courses include: Chemistry 115, 116; Physics 125, 126, 147, and 148 (or Physics 153, 154 and labs); Mathematics 151, 152. Recommended are: Chemistry 341, 342; Engineering 351; Mathematics 253; Physics 223; Biology 155 and additional courses, where paleontology is a major interest.

BACHELOR OF ARTS MAJOR: 32 semester hours in earth sciences, including 131, plus at least three lower division and four upper division courses. Attendance at departmental seminars is compulsory during junior or senior year. A field course such as 330, 351, 360, or 390 is recommended. Required supporting courses include: Chemistry 104, 105, or 115, 116; Physics 125, 126, 147, 148; Mathematics 151. Recommended are: Biology 155; Mathematics 152; Computer Science 144. Options reflect a student's earth science interests and are discussed with an adviser.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

MINOR: 20 semester hours of earth science courses, excluding interim courses, completed with grade of C or higher.

COURSE OFFERINGS

101 WORLD GEOGRAPHY

Patterns of physical, climatic, and ecological features and their relationship to the development of human cultures. 101 does not meet the natural sciences core requirement. Interim 1984 (4)



E

Earth Sciences

131 PHYSICAL GEOLOGY

An introductory course dealing with the human geologic habitat, both at present and as it has developed through time; materials of earth (and lunar) crusts, their derivation through major earth processes and formation of surface features—with emphasis on their significance to cultural development and civilization; laboratory study of rocks, minerals, and geologic mapping; field trips are arranged. I (4)

132 HISTORICAL GEOLOGY

A sequel to 131 which concentrates on earth history, particularly the formation of the North American continent: sedimentary rocks, fossils, and stratigraphic record are related to tectonic upheaval and growth; field trips are arranged. II (4)

202 GENERAL OCEANOGRAPHY

Oceanography and its relationship to other fields; physical, chemical, biological, climatic, and geological aspects of the sea; field trips. II (4)

222 CONSERVATION OF NATURAL RESOURCES

Principles and problems of public and private stewardship of our resources with special reference to the Pacific Northwest. I (4)

323 MINERALOGY

Crystallography and mineralogy, both ore- and rock-forming minerals. Prerequisites: 131 and high school chemistry or consent of instructor. Interim 1985 (4)

324 PETROLOGY

The occurrence and classification of common rock types; processes by which they were formed with reference to theoretical principles. Prerequisites: 131 or consent of instructor. II a/y 1983-84 (4)

325 STRUCTURAL GEOLOGY

The form and spatial relationships of various rock masses and an introduction to rock deformation; consideration of basic processes to understand mountain building and continental formation; laboratory emphasizes practical techniques which enable students to analyze regional structural patterns. Prerequisite: 131 or consent of instructor. II a/y 1984-85 (4)

326 OPTICAL MINERALOGY

Theory and practice of mineral studies using the petrographic microscope, including immersion oil techniques, production of thin sections, and determination of minerals by means of their optical properties. This provides an introduction to the broader subject of petrography. I a/y 1983-84 (4)

327 STRATIGRAPHY AND SEDIMENTATION

Formational principles of surface-accumulated rocks, and their incorporation in the stratigraphic record. This subject is basic to field mapping and structural interpretation. I a/y 1983-84 (4)

328 PALEONTOLOGY

A systematic study of the fossil record, combining principles of evolutionary development, paleohabitats and preservation, with practical experience of specimen identification. These studies are fundamental to the understanding of stratigraphy and the geologic time scale. I a/y 1984-85 (4)

330 SURVEY AND MAPPING PRINCIPLES

Introduction to techniques and instrumentation of basic surveying and cartography. Includes leveling and transit traverses, baseline measurements, and triangulation; also, applications of aerial photos and their interpretation for geologic mapping. Techniques for compiling geologic data and construction of geologic maps are among the essential skills covered. II a/y 1984-85 (4)

341 ENERGY AND MINERAL RESOURCES FOR THE FUTURE

A survey of the world's energy and mineral resources comprising the raw materials of industrialized societies. Studies include geological occurrence, global distribution, and quantities of such reserves; also, their fundamental technologies and economics, as well as the political framework in which they are developed. Interim 1986 (4)

351 NATURAL HISTORY OF THE PACIFIC NORTHWEST

A field and laboratory course examining regional natural history; an outdoor workshop designed for science teachers at elementary and junior high levels. Not to be counted toward a major or graduate credit in biology. Prerequisite: consent of instructor. S (6)

360 GEOLOGY OF WESTERN WASHINGTON

The minerals, rocks, and geological history of the region extending from the Columbia Plateau to the Pacific Ocean. Includes field trips. Prerequisite: previous earth science or consent of instructor. S (4)

390 GEOLOGIC FIELD MAPPING

Combining a survey of regional field geology with a series of local mapping projects, this course introduces field techniques of geologic map-making. Included are traversing and data assembly, map construction, section measurements, structural analysis, and chronological synthesis. Graphics techniques are also covered. Prerequisites: previous geology courses and consent of instructor. S (5)

490 SEMINAR (1-2)**491, 492 INDEPENDENT STUDY (1-4)****597 GRADUATE RESEARCH (1-8)**

Economics

Want is a growing giant whom the coat of Have was never large enough to cover. —Ralph Waldo Emerson

Economics is the study of how people establish social arrangements for producing and distributing goods and services to sustain and enhance human life. Its main objective is to determine a wise use of limited economic resources so that people receive the maximum possible benefit at the lowest cost.

The economics discipline embraces a body of techniques and conceptual tools that are useful for understanding and analyzing our complex economic system. Career avenues for graduates are numerous, since their understanding of the economy and their problem-solving and thinking abilities are applicable to a wide range of activities in business and/or government.

FACULTY

Ankrim, Chair; Brue, R. Jensen, Miller, N. Peterson, Vinje, Wentworth.

BACHELOR OF ARTS MAJOR: Minimum of 36 semester hours, including 150, 351, 352, 486, and 8 hours selected from Statistics 231, Math 334, 341, Economics 343, 344 (if not used as economics electives), Business Administration 281, and Computer Science 110 or 144 or 220, and 12 hours of electives in economics.

For students planning graduate work in economics or business, additional math preparation will be necessary. For specific courses, consult your major adviser.

MINOR: 20 semester hours, including 150, 351 or 352, and 12 additional hours of electives, 4 of which may be in statistics.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

150 PRINCIPLES OF ECONOMICS

Introduction to the scope of economics, including Macro and Micro Economics; analysis of U.S. economic system; emphasis on current economic policy. (4)

290 CONTEMPORARY ECONOMIC PROBLEMS

Current economic issues; unemployment, inflation, poverty, and pollution; interests of the class determine specific topics. Prerequisite: 150 or consent of instructor. (4)

321 LABOR ECONOMICS, LABOR RELATIONS, AND HUMAN RESOURCES

The nature and treatment of human resource problems in the United States; wage determination, unionism, collective bargaining, unemployment, poverty and discrimination, and investment in human capital. Prerequisite: 150 or consent of instructor. (4)

331 INTERNATIONAL ECONOMICS

Regional and international specialization, comparative costs, international payments and exchange rates; national policies which promote or restrict trade. Prerequisite: 150. (4)

343 OPERATIONS RESEARCH

Quantitative methods for decision problems. Emphasis on linear programming and other deterministic models. Prerequisite: STAT 231 or equivalent. (2)

344 APPLIED REGRESSION ANALYSIS

Simple and multiple regression analysis as investigative tools. Course stresses construction of elementary linear models and interpretation of regression results. Prerequisite: STAT 231 or equivalent. (2)

351 INTERMEDIATE MACRO ECONOMIC ANALYSIS

National income determination including policy implications within the institutional framework of the U.S. economy. Prerequisite: 150. (4)

352 INTERMEDIATE MICRO ECONOMIC ANALYSIS

Theory of consumer behavior; product and factor prices under conditions of monopoly, competition, and intermediate markets; welfare economics. Prerequisite: 150. (4)

361 MONEY AND BANKING

The nature and role of money; the commercial banking system; the Federal Reserve System; theory of credit and money supply control; Keynesian and Monetarist theories of monetary impacts on inflation, interest rates, and national income. Prerequisite: 150. (4)

362 PUBLIC FINANCE

Public taxation and expenditure at all governmental levels; the incidence of taxes, the public debt and the provision of public goods such as national defense, education, pure air, and water. Prerequisite: 150. (4)

371 INDUSTRIAL ORGANIZATION AND PUBLIC POLICY

An analysis of the structure, conduct, and performance of American industry and the public policies that foster and alter industrial structure and behavior. Topics include the economics of firm size, motivations of the firm, concentration, mergers, patents, anti-trust, public utility regulation, public enterprise, and subsidization. Prerequisite: 150 or consent of instructor. (4)

381 COMPARATIVE ECONOMIC SYSTEMS

An analysis and comparison of major contemporary economic systems. Includes an examination of capitalism, market socialism, centrally planned economies, and systems used in selected countries. Prerequisite: 150 or consent of instructor. (4)

399 INTERNSHIP

A research and writing project in connection with a student's approved off-campus activity. The primary goal is to gain insight into applications of the ideas and methodologies of economics. Prerequisite: sophomore standing plus one course in economics, and consent of the department. (1-4)

432 URBAN AND REGIONAL ECONOMICS

Economic growth process in developing regions of the U.S.; the interrelationship of political, economic, cultural, and institutional factors in the growth process. Prerequisite: 150. (4)

486 EVOLUTION OF ECONOMIC THOUGHT

Economic thought from ancient to modern times; emphasis on the period from Adam Smith to J.M. Keynes; the classical economists, the socialists, the marginalists, the neoclassical economists, and the Keynesians. (4)

490 SEMINAR

Seminar in economic problems and policies with emphasis on encouraging the student to integrate problem-solving methodology with tools of economic analysis. Topic(s) selected by class participants and instructor. Prerequisite: consent of instructor. (4)

491, 492, 493 INDEPENDENT STUDY

Prerequisite: consent of the department and completion of two courses in economics. (1-4)

500 APPLIED STATISTICAL ANALYSIS

An intensive introduction to statistical methods for graduate students who have not previously taken introductory statistics. Emphasis on the application of inferential statistics to concrete situations. Topics include: measures of location and variation, probability, estimation, hypothesis tests, and regression. (4)

501 GRADUATE WORKSHOPS

Graduate workshops in special fields or areas for varying periods of time. (1-4)

504 ECONOMIC ANALYSIS AND POLICY DECISIONS

Basic economic concepts applied to policy formation and operating decisions. (4)

543 QUANTITATIVE METHODS

The concepts of probability, sampling, statistical decision theory, linear programming, and other deterministic models applied to managerial problems. Prerequisite: STAT 231 or 341. (4)

590 GRADUATE SEMINAR

Selected topics as announced. Prerequisite: consent of the instructor. (1-4)

591 DIRECTED STUDY (1-4)

595 GRADUATE READINGS

Independent study card required. (4)

598 RESEARCH PROJECT (4)

599 THESIS (4)

E

Economics



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School of Education

School of *Education*

The School of Education offers programs of study leading to certification for elementary and secondary teachers, counselors, nurses, administrators, and personnel in special education. The curriculum is designed to provide graduates with a blending of the liberal arts and a variety of practical exposures to guided field experiences beginning early in the educational sequence. The faculty is committed to the development of educational personnel sensitive to the varied individual needs of learners.

FACULTY

Johnston, *Dean*; Baughman, Brochtrup, Churney, DeBower, Fletcher, Gerlach, M. Hanson, Lawrence, Mathers, Minetti, Moe, Nokleberg, F. Olson, Pederson, Reisberg, Rickabaugh, Siegelman, Sydnor, Wentworth, Williamson.

The School of Education is accredited by the National Council for Accreditation of Teacher Education (NCATE), the Northwest Association of Schools and Colleges, and the Washington State Board of Education for the preparation of elementary and secondary teachers, principals, program administrators, special education teachers, and guidance counselors, with the Master of Arts the highest degree approved. The accreditation gives PLU graduates reciprocity with many other states.

Programs for the preparation of school librarians, school nurses, school counselors, administrators, and supervisory personnel are available. The School offers course work toward the conversion, renewal, or reinstatement of teaching certificates.

The School of Education offers graduate degrees in Classroom Teaching, Reading, Educational Administration, Counseling and Guidance, Educational Psychology, and Special Education. Information regarding these programs is available through the dean of graduate studies.

ADMISSION REQUIREMENTS

Students with sophomore standing and with a cumulative grade point average of 2.33 or above may register for Education 251 (secondary) or 253 (elementary). Students will make formal application to the School of Education during the semester in which they are enrolled in Education 251 or 253. Education 253 may not be taken concurrently with General Elementary Methods. Before enrolling students must have C- or higher grades in English 101 and Psychology 101 and must demonstrate proficiency in writing, spelling, and mathematics before admission to the School of Education. Special Education 190-191 may be taken before Education 251 or 253. Special Education 290 may be taken concurrently. No course beyond Education 321 may be taken without admission to the School of Education.

Transfer students who may have had education courses in other institutions should meet with an education adviser for evaluation of work completed and must arrange for application, admission, and screening into the School of Education.

Students who have earned a bachelor's degree at PLU or elsewhere, and who contemplate meeting certification requirements, are expected to meet the same requirements for admission and certification that apply to degree students. The certification sequence will normally require three semesters.

BAE and/or CERTIFICATION REQUIREMENTS

Students become candidates for certification when they have completed the following:

1. All course work with a cumulative grade point average of 2.50 or above.
2. Professional Education Sequence for elementary or secondary teaching.
3. An approved teaching major(s) or concentration(s) (see requirements as listed under Academic Preparation).
4. Securing a valid first aid card at the time of program completion (or an equivalent course).

5. Minimum Generic Standards (Chapter 180-89-130 and 135 WAC).
6. All courses in education and in major and minor fields with grades of C- or higher.
7. Achievement of proficiency in writing and math skills.
8. Anthropology 210/History 210 for secondary teaching and Anthropology 102 for elementary teaching.

TEACHER CERTIFICATION

Initial Teaching Certificate. The School of Education in the fall of 1982 entered into a new program of certification mandated by the State Board of Education under the 1978 Standards for Certification. The four-year curriculum usually leads to a Bachelor of Arts in Education and the initial level teaching certificate (see previous catalogs for information concerning the provisional teaching certificate granted under 1962 Standards). The initial teaching certificate is valid for four years and may be renewed once for three years. PLU endorses the certificate on the basis of preparation. Secondary Teachers holding initial level certificates shall be assigned by local districts to endorsed areas and levels only. Teachers holding initial level elementary endorsements shall be assigned to elementary or middle grades only.

ELEMENTARY PREPARATION

General requirements. In addition to the general university and core requirements in all curricula, certain specific requirements in general education must be met.

1. Anthropology 102, Exploring Anthropology: Culture and Society (recommended) or Anthropology 210/History 210, Global Perspectives, must be taken.
2. Prospective elementary teachers usually meet the Natural Sciences/Mathematics core requirement in the following ways:
 - a. Completing Biology 111 or another life science course;
 - b. Completing Natural Science 106 or another physical science course;
 - c. Completing Mathematics 323.

A year course in one laboratory science may be substituted by those who have adequate background from high school in the other science area.

Professional Education Sequence, Elementary Program.

- SPED 190 Exceptional Children and Adults, 3 hours (no prerequisite)
- EDUC 253 Child Development and Schools, 4 hours (2.33 GPA and sophomore status required; prerequisites: ENGL 101 and PSY 101)
- EDUC 322 General Methods, Primary, 4 hours
OR
- EDUC 323 General Methods, Upper Elementary, 4 hours
OR
- EDUC 324 General Methods, Elementary, 4 hours
(For all General Methods courses a GPA of 2.50 and junior standing are required. Prerequisites: EDUC 253 or 321; application, screening, and acceptance into the School of Education; satisfactory writing and math skills.)
- EDUC 421 Teachers and the Law, 1 hour. (Prerequisites: SPED 190, EDUC 253)
- EDUC 430 Student Teaching, Primary, 10 hours (single)
OR
- EDUC 432 Student Teaching, Upper Elementary, 10 hours (single)
- EDUC 434 Student Teaching, Elementary (dual)
(For Student Teaching a GPA of 2.50 and senior standing are required along with positive field evaluations from EDUC 253 and EDUC 322-4. Prerequisites: EDUC 253, 322-4, 325, 326, 408, 410, and 412; all conditions to full admission met; satisfactory writing, spelling, and math skills.)
- EDUC 435 Professional Seminar, 2 hours (must be taken concurrently with EDUC 430 or 432)

Students in elementary education who do not complete all necessary procedures before April 15 for fall student teaching or November 15 for spring student teaching may expect a delay of one semester in being placed for student teaching. A health certificate for teachers will need to be on file in the School of Education before student teaching placement can be finalized.



Professionalized Subject Matter Minor (14 hours required of all elementary candidates)*Required—12 semester hours*

- EDUC 325 Reading in the Elementary School (4)
 EDUC 326 Mathematics in the Elementary School (2)
 EDUC 408 Language Arts in the Elementary School (2)
 EDUC 410 Science in the Elementary School (2)
 EDUC 412 Social Studies in the Elementary School (2)

Elective—2 semester hours

- ART 341 Elementary Art Education (2)
 MUS 341 Music in the Elementary School (2)
 PE 322 Physical Education in the Elementary School (2-4)
 HED 295 School Health (2)

SECONDARY PREPARATION**Professional Sequence (minimum of 30 hours)**

- SPED 190 Exceptional Children and Adults (3)
 EDUC 251 Learner and Society (GPA 2.33 required; sophomore level course; prerequisites: ENGL 101, PSY 101) (4)
 EPSY 368 Educational Psychology (GPA 2.50 required; prerequisite: EDUC 251) (4)
 EDUC 421 Teachers and the Law (GPA 2.50 required) (1)
 EDUC 425 General Secondary Methods (GPA 2.50 required; prerequisites: EDUC 251, EPSY 368 or permission; strongly recommended: SPED 190, ANTH 210/HIST 210) (4)
 SPECIAL METHODS See Education adviser (2)
 EDUC 465 Student Teaching (GPA 2.50 and senior status required; prerequisites: EDUC 251, EPSY 368, EDUC 425, first aid card, all conditions of screening met) (10)
 EDUC 467 Evaluation (GPA 2.50 required; prerequisite: EDUC 425 or concurrent enrollment in EDUC 425; may be taken concurrently with EDUC 465, but not recommended) (2)

SPECIAL PROGRAMS

The following specialized minors in education are available to all students pursuing teacher certification. Students desiring to work toward a specialized minor should consult an adviser in the School of Education for assistance in planning their program.

READING—14 semester hours

- Prerequisite: EDUC 325 Reading in the Elementary School Required
 EDUC 408 Language Arts in the Elementary School (2)
 EDUC 483 Primary Reading (2)
 EDUC 479 Special Techniques in Reading (4)
 Electives—minimum of 6 semester hours chosen in consultation with an adviser before registration.

SPECIAL EDUCATION

This 32 semester hour teaching major must be taken in conjunction with another academic teaching major. Students should make application for admission to the special education program while enrolled in Special Education 190. Students completing this major along with the required professional education sequence for elementary or secondary teachers will be eligible to teach in special education programs in the State of Washington and most other states. Students not majoring in education may be excused from the requirements of taking Education 251 or 253.

Major—32 semester hours total. 25 hours required: Special Education 190, 290, 390, 393, 396, 397, 405 or 406, 438 or 439; 2 hours of 399 practica; 5 hours of electives from Special Education 191, 296, 395, 403, 475, 479, 490, 491, 494.

Minor—18 semester hours total. 11 hours required: Special Education 190, 290, 396, 405 or 406, 7 hours of electives from 191, 296, 390, 393, 395, 397, 403, 475, 479, 490, 491, 494. At least one hour of practicum (399) is recommended.

LEARNING RESOURCE SPECIALIST (Preparation of School Librarians)

16 semester hours
 Students interested in preparing for the responsibility of administration of a school library may meet suggested standards through the following program: Select a minimum of one course from each of the following divisions:

Book and Media Selection

- EDUC 456 Storytelling (4)
 EDUC 454 Selection of Learning Resource Materials (2)
 ENGL 323 Children's Literature (4)

Administration

- EDUC 451 Administration of the School Library (2)

Cataloging

- EDUC 453 Processing School Library Materials (2)

Reference

- EDUC 452 Basic Reference Materials (2)

Media Utilization and Production

- EDUC 457 Preparation and Utilization of Media (3-4)

Curriculum

- EDUC 580 Curriculum Development (2)

ACADEMIC PREPARATION

A major from those listed must be completed. Completion of a teaching major/minor in a second academic area is strongly recommended. (Students do not major in education.) Teaching majors are offered in the following areas: art, biology, business education, chemistry, communication arts, earth and general sciences, economics, English, French, German, history, language arts, mathematics, music, physical education, physics, political science, Scandinavian studies, social sciences, sociology, and Spanish.

PREPARATION FOR ELEMENTARY TEACHING: A student preparing for elementary school teaching must complete a 24 semester hour elementary teaching major and two minors. One of the minors must be the Professional Subject Matter Minor of 14 hours. The second must be a 12 hour teaching minor which is different from the major. See below for all teaching majors and minors.

PREPARATION FOR JUNIOR HIGH TEACHING: Students preparing for teaching on the junior high level are required to complete a teaching major of approximately 24-32 semester hours. A teaching minor is also required. Students must consult an education adviser regarding teaching major and minor combinations.

PREPARATION FOR SENIOR HIGH SCHOOL TEACHING: Students preparing for senior high teaching must complete approximately 44-48 semester hours in the academic area in which they plan to teach. A minor in a second teaching area is recommended. Students may also find it advantageous to their career goals to 1) develop skills in one or more coaching areas in response to Title IX legislation, and 2) develop competencies in special education in response to federal special education legislation. In all cases, students must discuss their program with an adviser from the School of Education.

PREPARATION FOR K-12 TEACHING: Students preparing for K-12 teaching in art, music or physical education must have student teaching experience on both the elementary and secondary levels. Detailed information regarding K-12 certification is available in the School of Education office.

ART

Senior High Teaching Major: 46 semester hours* required: Art 160, 180, 230, 250, 280, 365, 370, 380, 440, plus electives.

Secondary Education Teaching Minor: 16 semester hours required: Art 160, 230, 250, 365. Professional methods course required: Art 440.

Junior High Teaching Major: 30 semester hours required: Art 160, 180, 230, 250, 280, 365, 440, plus electives. Teaching Minor: 20 semester hours required: Art 110, 160, 230, 250, and 365.

Elementary Teaching Major: 24 semester hours required: Art 110, 160, 250, 341, and 8 semester hours of 230, 365, or 370.

Teaching Minor: 12 semester hours as determined by the School of Education.

*Up to three supporting courses may be recommended.

BIOLOGY

Senior High Teaching Major: 48 semester hours required: Biology 155, 156, 253, 322, 340, 424, 475; a choice of 8 additional semester hours of upper division courses in biology. Required supporting courses: Chemistry 115, 116; Earth Sciences 131 or 132. Education 447 to meet professional education requirement.

Senior High Teaching Minor: 20 semester hours required: Biology 155, 156, 253; a choice of 8 additional upper division semester hours in biology. Education 447 to meet professional education requirement.

Elementary Teaching Major: 24 semester hours required: Biology 155, 156, 253; a choice of 8 additional semester hours 205 and above. Required supporting course: Chemistry 104.

BUSINESS EDUCATION

Senior High Teaching Major: 41-45 semester hours required: Economics 150, Computer Science 110; Business Administration 281, 350, 435; advanced typing; business machines; business communications (taken at a community college); Education 341, 342, 343, 344. Each student is required to select at least one area of concentration from accounting or secretarial. Accounting: Business Administration 381, 483. Secretarial: advanced shorthand, records management, machine transcription (available at a community college); Education 345.



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School of Education

Secondary Education Teaching Minor: 16 semester hours required; courses selected in consultation with advisers in business education and education. Professional methods courses required: Education 341, 342, 343, 344.

CHEMISTRY

Senior High Teaching Major: 49 semester hours required: Chemistry 115, 116, 321, 331, 332, 333, 334, 341, 342, and 343; Physics 147, 148, 153, and 154; Math 151, 152.

Elementary Teaching Major: 24 semester hours required: 16 hours of approved chemistry and 8 hours as determined by the School of Education. **Teaching Minor:** 12 hours as determined by the School of Education.

COMMUNICATION ARTS

Senior High Teaching Major: 44 semester hours required: 16 semester hours of Communication Arts 123, 250 or 328, 241, plus 12-29 semester hours chosen in consultation with the major adviser. Supporting classes: Alternative of 16-20 semester hours in English or modern or classical languages.

Secondary Education Teaching Minor: 16 semester hours required: Communication Arts 123, 241, 250, 283. Professional methods course required: Communication Arts 406.

Junior High Teaching Major: 24-28 semester hours required: 12 semester hours of Communication Arts 123, 328 or 250, 241 and 406, plus additional 8 hours in communication arts. Additional 8-12 semester hours to be determined with department and School of Education. **Teaching Minor:** 16-20 semester hours required: Communication Arts 123 and 241, plus 8-12 elective semester hours.

Elementary Teaching Major: 24 semester hours required: Communication Arts 123 and 406, plus 8 semester hours in communication arts and 8 semester hours in English. **Teaching Minor:** 12 semester hours to be determined in consultation with the School of Education.

COMPUTER SCIENCE

Secondary Education Teaching Minor: 24 semester hours. Computer Science 110 or 210 or 220; 144, 270, 380, 4 semester hours of computer science electives, Math 151 or 128. Computer Science 449 to meet professional education requirement.

EARTH SCIENCES

Senior High Teaching Major: 44 semester hours required, including Earth Sciences 131, 132, 202; plus three additional courses in earth sciences, with one preferably a field course such as 330, 351, 360, or 390. Required supporting: Chemistry 103, 104, or 115, 116; Physics 125, 126 (and labs) or 153, 154 (and labs); Math 133, appropriate biology courses. Additional supporting courses should be discussed with adviser.

Junior High Teaching Major: 28 semester hours required, including Earth Sciences 131, 132, 202, 324 or 325; plus three additional courses in earth sciences. A field course such as 330, 360 or 390 is recommended. Suggested supporting: Chemistry 104 or 115, 116; Physics 125, 126 (and labs) or 153, 154 (and labs); Math 133; appropriate biology courses. Additional supporting courses should be discussed with adviser.

Elementary Teaching Major: 24 semester hours required: Earth Sciences 131, 132, and 202; Chemistry 104 or 115 and one upper division science course. **Teaching Minor:** 12 semester hours in earth sciences.

ECONOMICS

Senior High Teaching Major: 44 semester hours required: Economics 150, 351, 352, 486; 12 semester hours from the following: Economics 321, 331, 361, 362, 371; History 460 plus 12 semester hours distributed over areas of sociology, political science, or anthropology. (Recommended: Education 448 to meet professional education requirement.)

Secondary Education Teaching Minor: 20 semester hours required: Economics 150, History 460, and 12 semester hours selected in consultation with advisers in economics and education. Professional methods course required: Education 448.

Junior High Teaching Major: 28 semester hours required: Economics 150, 371, 486; 4 hours from: Economics 321, 331, 351, 361, 432; History 460 plus 8 semester hours distributed over areas of sociology or political science. **Teaching Minor:** 12 semester hours required: Economics 150, plus 12 hours of upper division economics. Education 448 to meet professional education requirement.

Elementary Teaching Major: 24 semester hours required: Economics 150, 371, 486; 4 semester hours from: Economics 321, 331, 351, 352, 361, 362, 432; History 460; 4 semester hours from the areas of sociology or political science. **Teaching Minor:** 12 semester hours required: Economics 150 and 8 hours of upper division economics. Education 412 to meet professional education requirement.

ENGLISH

Senior High Teaching Major: A minimum of 32 semester hours, 16 of which are to be upper division, is required beyond 101 and with the following distribution: (a) one course in American literature; (b) two courses in British literature (one before 1700 and one after); (c) one writing course beyond English 101; and (d) English 403. All majors must present two years of one foreign language at the college level or show equivalent proficiency. Education 444 to meet professional education requirement.

Secondary Education Teaching Minor: 16 semester hours required: English 241, 328, 403, and either 217 or 363. Professional methods course required: Education 444.

Junior High Teaching Major: A minimum of 32 semester hours in English beyond 101 as stated in Senior High Teaching Major above, including the distribution requirements. Majors must present two years of one foreign language at the college level or show equivalent proficiency and must take Education 444 to meet professional education requirement.

Elementary Teaching Concentration: 24 semester hours; 12 hours in English distributed as in (a) and (b) under Senior High Teaching Major above, and 12 additional hours in English as determined by the School of Education. Recommended: English 363. **Teaching Minor:** 12 hours required, as determined by the School of Education.

FRENCH

Senior High Teaching Major: 44 semester hours required, including 32 semester hours of French and 12 semester hours of supporting courses: French 201, 202 (or equivalent), 321, 351, 352, and 12 additional semester hours. Supporting courses to be selected with the approval of the department and must include Language 445, which will also meet part of the professional education elective requirement.

Secondary Education Teaching Minor: 16 semester hours required; courses selected in consultation with advisers in education and languages. Professional methods course required: Language 445.

Junior High Teaching Major: 28 semester hours required as listed for senior high preparation; supporting courses chosen in consultation with major adviser. **Secondary Teaching Minor:** 16 semester hours above 200 level.

Elementary Teaching Major: 24 semester hours required, including 20 hours in French and 4 additional hours selected in consultation with the department and the School of Education. **Teaching Minor:** 12 hours required, as determined by the department and the School of Education.

GENERAL SCIENCE

Senior High Teaching Major: 44 semester hours required: Biology 155, 156, 253; Chemistry 104, 115, 116; Earth Sciences 131, 132, 202; a choice of 8 additional semester hours of upper division credit. Education 447 to meet professional education requirement.

Senior High Teaching Minor: 20 semester hours required: Biology 155; Chemistry 104; Earth Sciences 131; 8 additional semester hours from these areas or physics. Education 447 to meet professional education requirement.

Elementary Teaching Major: 24 semester hours required: biology-4; earth sciences-4; chemistry, or physics-4; 12 additional hours from biology, earth sciences, chemistry, or physics.

Elementary Teaching Minor: 12 semester hours required: physical science-4; life science-4; 4 hours from either.

GERMAN

Senior High Teaching Major: 44 semester hours required, including 32 semester hours of German and 12 semester hours of supporting courses: German 201, 202 (or equivalent), 321, 351, 352, and 12 additional semester hours. Supporting courses to be selected with the approval of the department and must include Language 445, which will also meet part of the professional education elective requirement.

Secondary Education Teaching Minor: 16 semester hours required; courses selected in consultation with advisers in education and languages. Professional methods course required: Language 445.

Junior High Teaching Major: 28 semester hours required as listed for senior high preparation; supporting courses chosen in consultation with major adviser. **Secondary Teaching Minor:** 16 semester hours above 200 level.

Elementary Teaching Major: 24 semester hours required, including 20 hours in German and 4 additional hours selected in consultation with the department and the School of Education.

Teaching Minor: 12 hours required, as determined by the department and the School of Education.



HISTORY

Senior High Teaching Major: 44 semester hours required: History 107 or 108; 109 or 110; 8 hours of 251, 252, 253; 460 and 12 additional upper division hours in history including a senior seminar. Supporting courses: 12 additional semester hours selected from economics, geography, political science, psychology, and sociology. Recommended: Education 420, 448 to meet professional education requirements.

Secondary Education Teaching Minor: 16 semester hours required: 4 hours from History 251, 252, or 253; 460; and 8 hours selected in consultation with advisers in education and history. Professional methods course required: Education 448.

LANGUAGE ARTS

Secondary Education Teaching Minor: 16 semester hours required. Select minor from English, social sciences, foreign languages, or communication arts.

Junior High Teaching Major: 32 semester hours required: English 328; 4 hours of English 403 or Linguistics 400; 4 hours of upper division literature (in addition to course taken to meet general education requirement); Communication Arts 241 or 326 and Communication Arts 406; Education 444 and 12 semester hours from areas of English, journalism, communication arts, or foreign language beyond freshman level (at least 8 of the 12 hours must be in the same discipline, and 4 hours must be upper division). Teaching minor: 16 semester hours required, selected from offerings in English, journalism, communication arts, or foreign language beyond freshman level; English 328 is required. Recommended: Education 420.

Elementary Teaching Major: 24 semester hours required: English 328; one of English 403 or Linguistics 400; English 323, Communication Arts 406 and one of Communication Arts 241 or 326 or 436; one course selected from one of the following areas: English, Communication Arts, or foreign language beyond freshman level. **Teaching Minor:** 12 semester hours required as determined by the School of Education. English 328 is required.

MATHEMATICS

Senior High Teaching Major: 40 semester hours. Required: Math 151, 152, 253, 321, 331, 8 hours of math electives above 324 (4 hours can be computer science); Computer Science 110 or 144, one year (two-course) sequence in a natural science outside mathematics and computer science, Math 446 to meet professional education requirement.

Secondary Education Teaching Minor: 20 semester hours. Required: Math 151, 152, 230 or 331, 4 hours of math electives (321 or above 324), Computer Science 110 or 220 or 144. Math 446 to meet professional education requirement.

Elementary Teaching Major: 24 semester hours. Required: Math 133 or equivalent; 151, 152, 230 or 128; 323 or equivalent. Computer Science 110 or 144 is also strongly recommended.

Elementary Teaching Minor: 12 semester hours. Required: Math 323 or equivalent, Computer Science 110 is strongly recommended.

MUSIC

Secondary Teaching Major—Choral: 54 semester hours required: Music 123, 124, 125, 126, 132, 223, 225, 226, 227, 231, 248, 345, 366, 441, 443, 445, 453; eight hours from 360-363; four hours of class piano (minimum level 6)*; six hours of private instruction in voice; one hour of private instruction: senior recital 420 (half-recital); one hour of music elective. Music 441 and 443 are required in the Professional Education sequence for certification. See Music Department listings regarding courses which are prerequisite for student teaching. Recommended: Music 343, 491 (Independent Study-Observation) before student teaching.

Secondary Teaching Major—Instrumental: 54 semester hours required: Music 123, 124, 125, 126, 132, 223, 225, 226, 227, 231, 326, 345, 444, 445; six hours from 241/242, 243/244, 245/246, 247; eight hours from 370/380; two hours of class piano (minimum level 4)*; six hours of private instruction on principal instrument; one hour of private instruction: degree recital 420 (half-recital). Music 444 required in the Professional Education sequence for certification. See Music Department listings regarding courses which are prerequisite for student teaching. Recommended for string majors: Music 454. Recommended for all instrumental majors: 491 (Independent Study-Observation) before student teaching.

Junior High Teaching Major: 30 or 31 semester hours required: Music 123, 124, 125, 126, 132, 223, 225, 226, 227, 231, 345, 443 or 444; two hours of 360-363 or 370/380; two hours of class piano (minimum level 4)*. Two to three hours of Music 443 and 444 are required in the Professional Education sequence for certification. See Music Department listings regarding courses which are prerequisite for student teaching. Recommended: four hours of private instruction in voice or principal instrument and guitar laboratory; Music 491 (Independent Study-Observation) before student teaching.

Junior High Teaching Minor: Two to four semester hours from Music 341, 441, 443, and 444 plus 20 hours to be determined in consultation with the School of Education and the Department of Music.

Elementary Music Specialist—Choral: 48 hours required: Music 123, 124, 125, 126, 132, 223, 225, 226, 227, 231, 248, 341, 345, 441, 453; eight hours of 360-363; four hours of class piano (minimum level 6)*, four hours of private instruction in voice. Music 341 and 441 are required in the Professional Education sequence for certification. One hour of music elective. See Music Department listings regarding courses which are prerequisite for student teaching. Recommended: Music 491 (Independent Study-Observation) before student teaching.

*See Department of Music Handbook for descriptions of class piano levels.

Elementary Music Specialist—Instrumental: See Secondary Teaching Major Instrumental above.

Elementary Teaching Major: Two to four semester hours from Music 341 and 441, plus 24 hours to be determined in consultation with the School of Education and the Department of Music.

Elementary Teaching Minor: Two to four semester hours from Music 341 and 441, plus 12 hours to be determined in consultation with the School of Education and the Department of Music.

PHYSICAL EDUCATION

Secondary Teaching Major (44 hours): Required: Physical Education 277, 282, 283, 285, 286, 328, 329, 478, 481, 482, 484, and 485; Biology 205 and 206. Electives: 2 hours in physical education approved by major adviser. For K-12 certification students must also take Physical Education 322 and 360 in addition to meeting requirements as set forth by the School of Education.

Secondary Teaching Minor (19 hours): Required: Physical Education 283, 285 or 286, 328, 334, 478, and 2 hours of electives in physical education as approved by adviser.

Elementary Teaching Major (24 hours): Required: Physical Education 282, 283, 286, 322, 329, 334, and 6 hours of electives in physical education as approved by adviser.

Elementary Teaching Minor (12 hours): Required: Physical Education 282, 283, 286, and 322.

Elementary School Physical Education Specialist (40 hours): Required: Physical Education 277, 282, 283, 286, 322, 329, 360, 478, 481, 482, 484, 485, and Biology 205 and 206.

PHYSICS

Senior High Teaching Major: 44 semester hours required: Physics 106, 147, 148, 153, 154, 205, 223, 355, 421 (2 semester hours); Math 151, 152; 4 hours of chemistry.

Secondary Education Teaching Minor: 18 semester hours required: Physics 106, 125-126 (or 153-154), 147, 148, and 205. Professional methods course required: Education 447.

Junior High Teaching Major: 28 semester hours required: Physics 106 or 355, 125*, 126*, 147, 148, 205, 223, 272, 421 (2 semester hours), and 8 hours from the following: 106, 205, 223, 272, 355.

*Physics 153 and 154 may be taken instead of 125 and 126, with concurrent or prior registration in Math 151 or 152.

POLITICAL SCIENCE

Senior High Teaching Major: 44 semester hours required: Political Science 101, 151, 231, plus 16 hours of political science electives; History 460; 12 hours from the following supporting areas: economics, geography, history, sociology, anthropology, or psychology. Education 448 to meet professional education requirement.

Secondary Education Teaching Minor: 20 semester hours required: Political Science 101 or 151, History 460, and 12 hours selected in consultation with advisers in education and political science. Professional methods course required: Education 448.

PSYCHOLOGY

Secondary Education Teaching Minor: 16 semester hours required: Psychology 101, 243, and 8 additional hours from upper division courses. Professional methods course required: Education 448.

SCANDINAVIAN STUDIES

Secondary Education Teaching Minor: 20 semester hours required: Norwegian 201, 202, 351, 352; and 4 semester hours from Scandinavian 250, 321, 322, 421, or 422.

Elementary Teaching Major: 24 semester hours required: Norwegian 201, 202, 351, 352; and 8 semester hours from Scandinavian 250, 321, 322, 421, 422, or a Scandinavian culture course during the Interim.

Elementary Teaching Minor: 16 semester hours required: Norwegian 201, 202, 351 or 352; and one course from Scandinavian 250, 321, 322, 421, 422, or a Scandinavian culture course during the Interim.



SCIENCE (GENERAL)

See above.

SOCIAL SCIENCE

Senior High Teaching Major: 44 semester hours required: 4 hours from History 251, 252, 253; History 460; 4 hours from each of the following areas: anthropology, economics, geography, political science, psychology, and sociology; 12 upper division hours from two of the following areas: economics, political science, and sociology. Education 448 to meet professional education requirement.

Secondary Education Minor: 16 semester hours required: 4 hours from History 251, 252, or 253; History 460; and 8 hours selected from economics, political science, and geography (at least 4 hours from each of two departments). Professional methods course required: Education 448.

Junior High Teaching Major: 28 semester hours required: 4 hours from History 251, 252, 253; History 460; 4 hours from three of the following areas: anthropology, economics, geography, political science, psychology, and sociology; 8 upper division hours from two of the following areas: economics, political science, and sociology. Teaching Minor: 16 hours required: 4 hours from History 251, 252, 253; History 460; and 8 hours from economics, political science, and sociology. Education 448 to meet professional education requirement. Recommended: Education 420.

Elementary Teaching Major: 24 semester hours required: 4 hours from History 251, 252, 253; History 460; and 16 hours from the following: anthropology, economics, political science, psychology, sociology, and geography. Teaching Minor: 12 semester hours required, as determined by the School of Education.

SOCIOLOGY

Senior High Teaching Major: 44 semester hours required: Sociology 101 or 331; 24 hours of sociology; History 460; 12 semester hours distributed over three areas of other social sciences. Education 448 to meet professional education requirement. NOTE: Students may elect one of the specialized areas in sociology.

Secondary Education Teaching Minor: 16 semester hours required, including 10 1 or 331. Additional upper division courses selected in consultation with advisers in education and sociology. Professional methods course required: Education 448.

SPANISH

Senior High Teaching Major: 44 semester hours required, including 32 semester hours of Spanish and 12 semester hours of supporting courses. Spanish 201, 202 (or equivalent), 321, 351, 352, and 12 additional semester hours. Supporting courses to be selected with the approval of the department and must include Language 445, which will also meet part of the professional education elective requirement.

Secondary Education Teaching Minor: 16 semester hours required; courses selected in consultation with advisers in education and languages. Professional methods course required: Language 445.

Junior High Teaching Major: 28 semester hours required, as listed for senior high preparation; supporting courses chosen in consultation with major adviser. Secondary Teaching Minor: 16 semester hours above 200 level.

Elementary Teaching Major: 24 semester hours required, including 20 hours in Spanish and 4 additional hours selected in consultation with the department and the School of Education.

SPECIAL EDUCATION

(See above, under Special Programs.)

FIFTH-YEAR AND STANDARD CERTIFICATION

Program for all candidates holding a valid provisional teaching certificate and working toward standard certification.

The fifth-year of teacher education is to follow a period of one year of initial teaching experience. Students must complete a minimum of eight semester hours applicable toward the fifth year, before the beginning of the fourth year of teaching. Thirty semester hours in an approved program must be completed before the beginning of the seventh year of teaching. Students may choose the institution in which they wish to take advanced work as follows:

1. If they choose to work at PLU or any other of the teacher education institutions in the State of Washington, that institution shall be responsible for recommending them for the Standard Certificate upon completion of the fifth-year program.
 2. If PLU graduates wish to undertake the fifth year in an out-of-state institution, PLU will be responsible for recommending them for the Standard Certificate. Students must secure general approval of their plan from the university in advance. There are four provisions governing the fifth-year pattern of work, according to the State Board of Regulations:
 1. The fifth year must include a minimum of 30 semester hours of which at least fifty per cent must be upper division and/or graduate courses.
 2. No more than three semester hours of correspondence study may be approved as a part of the 30 semester hours in the student's fifth-year program.
 3. PLU graduates must take 15 semester hours of the fifth year in residence at PLU. A non-PLU student who wishes to be recommended by PLU must take a minimum of 20 semester hours in residence at PLU.
 4. Students may take 15 of the required 30 semester hours before or during the first year of teaching experience with prior permission of the School of Education.
- Following are requirements and procedures for the approval of fifth-year programs of work at PLU:

1. Specific course requirements are:

Elementary

- a. Required course: EDUC 467, Evaluation (2 hours)
- b. One required from the following (4 hours): EPSY 535, Foundations of Guidance; EPSY 578, Behavioral Problems; EPSY 575, Mental Health.
- c. 2 hours from the following suggested courses: EDUC 473, Parent-Teacher Relationships; EDUC 501, Sex Role Stereotyping in Education; EPSY 537, Reality Discussion Techniques; EPSY 536, Affective Classroom Techniques; 501 Workshops, for example, Discipline in the Classroom, Encouraging Process.

Secondary

- a. Required courses (4 hours): EDUC 420, Problems of Reading in the Secondary School; EDUC 467, Evaluation.
 - b. Electives (4 hours): *Group A*-2 hours-courses in a theoretical or interpersonal framework-EDUC 473, Parent-Teacher Relationships; EDUC 501, Sex Role Stereotyping in Education; EPSY 537, Reality Discussion Techniques; or appropriate substitutions; *Group B*-2 hours-courses in a methodological or instructional framework-Simulation, Film, Interaction Analysis, Program Ideas in the Junior High School, Plants of the Pacific Northwest, etc.
2. Any courses recommended for the individual student before the granting of the bachelor's degree must be completed. These may be recommended by either the undergraduate adviser or the School of Education.
 3. Any course work required by the undergraduate institution and/or the employing school district must be completed.
 4. Courses taken should strengthen areas of concentration and build stronger general education background as well as fill needs in the professional field. This program of studies is to be selected by students with the guidance of those who have worked with them during their period of initial teaching and the advisers at the recommending institutions.
 5. Students secure approval of the recommending institution for work taken elsewhere before the work is begun.

Some of the work taken during the fifth year may also apply toward a master's degree. Graduate students may undertake a program coordinating requirements for standard certification and the master's degree upon the approval of their committee chair and the coordinator of fifth-year programs.

RENEWAL OF INITIAL TEACHING CERTIFICATE

Students seeking to renew their initial teaching certificate must do the following:

1. Enroll formally in a planned program for the continuing teacher certificate.
2. Negotiate and establish a "plan of study" with their adviser.
3. Complete 10 semester hours of course work applicable to the continuing certificate program which are taken subsequent to issuance of the initial certificate.
4. Insure that official transcripts of applicable course work are on file in the School of Education at PLU.
5. Complete an application for teaching certificate with a notarized affidavit no older than six months at the time of recommendation for renewal.
6. Pay the State certificate fee.



CONTINUING TEACHER CERTIFICATE

The candidate for a continuing teacher certificate must complete at least 30 semester hours of upper division or graduate work subsequent to the baccalaureate degree, of which 20 semester hours must be taken after the first year of teaching. Candidates must have completed at least three years of service in an educational setting, including at least two years as a classroom teacher in grades K-12. Additional specific requirements include:

1. Completion of the "plan of study" and school district recommendations for study.
2. Completion of Education 515, 516, and 544.
3. Verification of the completion of continuing level minimum generic standards.
4. Completion of 8 semester hours in the supporting area.
5. Completion of 15 semester hours in residence for PLU graduates or 20 semester hours for those who received their initial certificate elsewhere.
6. Meeting the recency requirement, if applicable.
7. Completion of an application for a teaching certificate with a notarized affidavit no older than six months at the time of recommendation for the certificate.
8. Insuring that official transcripts as applicable are on file in the School of Education.
9. Payment of the State certificate fee.

With previous approval and adequate planning, most of the work taken for the continuing certificate may also apply towards a master's degree. Graduate students may undertake a program coordinating requirements for the continuing teaching certificate and the master's degree upon the approval of the faculty adviser or graduate chairperson.

PRINCIPAL'S AND PROGRAM ADMINISTRATOR'S CERTIFICATE

Preparation programs leading to certification at the initial and continuing levels for school and district-wide program administrators are available through the School of Education. Specific requirements for the certificates are identified in Handbooks available upon request. Master's degrees in Educational Administration are described in the Graduate Catalog, which can be obtained from the Graduate Studies Office.

CERTIFICATION REQUIREMENTS FOR SCHOOL COUNSELORS AND SCHOOL NURSES

(Subject to new certification requirements as of October 1973)

Educational Staff Associate certification for school counselors or for school nurses is individually designed through a consortium consisting of a school district, related professional associations, and Pacific Lutheran University. Additional information on these programs can be obtained by contacting the dean of the School of Education.

COURSE OFFERINGS**251 LEARNER AND SOCIETY: GROWTH AND DEVELOPMENT (SECONDARY)**

Orientation to contemporary schools; human development in relation to individuals and groups in an educational setting. Public school observation required weekly with students responsible for their own transportation. Prerequisites: PSY 101 or SOC 101, ENGL 101, sophomore standing, 2.33 GPA. (4)

253 CHILD DEVELOPMENT AND SCHOOLS

Introduction to the nature of schools and teaching in contemporary society; overview of human development with special emphasis on intellectual, social, emotional, and physical development of elementary age children in a school setting. Weekly public school observations required with students responsible for their own transportation. Prerequisites: ENGL 101, PSY 101, sophomore standing, 2.33 GPA, writing and math skills assessment. Also available as independent study (253 IS) for 1-4 credits, if approved by faculty, for students with extensive background or experience in schools and development. (4)

321 HUMAN DEVELOPMENT

Emotional, social, intellectual, and physiological development from infancy through adolescence. A weekly four-hour observation in the public school is required. (Individually assigned.) Students responsible for their own transportation. Prerequisites: PSY 101, ENGL 101, junior standing, 2.33 GPA. (2-4)

322 GENERAL METHODS-PRIMARY

Competencies will be developed for teaching in grades K-3, with observation and participation in public schools. Prerequisites: 253 or 321. 2.50 GPA (4)

323 GENERAL METHODS-UPPER ELEMENTARY

Competencies will be developed for teaching in grades 4-6, with observation and participation in public schools. Prerequisites: 253 or 321. 2.50 GPA. (4)

324 GENERAL METHODS-ELEMENTARY

Competencies will be developed for teaching in grades K-6. Extended experience and participation in public school classrooms will be provided. Prerequisites: 253 or 321, MATH 323, and concurrent enrollment in courses 325, 326, 408, 410, 412. 2.50 GPA. (4)

325 READING IN THE ELEMENTARY SCHOOL

Teaching reading in elementary grades, including modern approaches, materials, methods, techniques, procedures, and some diagnosis of reading difficulties. Prerequisites: 322-234 or concurrently with 322-324. 2.50 GPA. (4)

326 MATHEMATICS IN THE ELEMENTARY SCHOOL

Basic mathematical skills and abilities needed by the elementary school teacher; recent developments and materials. Prerequisites: 253, MATH 323 or equivalent. 2.50 GPA. (2)

341 PHILOSOPHY OF VOCATIONAL EDUCATION

Objectives of high school business education programs, the business curriculum, layout and facilities planning, the evaluation of business teachers and competence for business occupations. Examination of information resources and current thought in business education, cooperative education, and distributive education. Prerequisite: EDUC 425 is recommended. (2)

342 METHODS OF TEACHING TYPING AND BOOKKEEPING

Application of research findings and psychological principles to the teaching of typing and bookkeeping. Prerequisites: BA 281 and advanced typing; EDUC 425 is recommended. (2)

343 METHODS OF TEACHING BOOKKEEPING

Application of research findings and psychological principles to the teaching of bookkeeping. Prerequisites: EDUC 425 (may be concurrent) and BA 281. (1)

344 METHODS OF TEACHING GENERAL BUSINESS SUBJECTS

Application of research findings and psychological principles to the teaching of general business, consumer economics, economics, business law, business mathematics, and business communications subjects. Prerequisites: EDUC 425 (may be concurrent), ECON 150, and BA 281. (1)

401 WORKSHOPS

Workshops in special fields for varying periods of time. (1-6)

408 LANGUAGE ARTS IN THE ELEMENTARY SCHOOL

The functional teaching of communication skills, grades K-6; areas include oral and written expression, listening, reading, literature, dramatization, spelling, grammar, handwriting, children's language study, vocabulary development, and lexicography. Prerequisite: 253. 2.50 GPA and 322-324 or concurrently with 322-324. (2)

410 SCIENCE IN THE ELEMENTARY SCHOOL

A humanistic approach with emphasis on those kinds of materials and "hands on" activities needed to achieve the objectives of science. Prerequisite: 322-324 or concurrently with 322-324. 2.50 GPA. (2)

412 SOCIAL STUDIES IN THE ELEMENTARY SCHOOL

Objectives, materials, and methods of teaching the social studies; recommended to student teachers and experienced teachers. Prerequisite: 253. 2.50 GPA. (2)



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420 PROBLEMS OF READING IN THE SECONDARY SCHOOL

Teaching secondary reading in content areas; attention to developmental reading problems; materials, methods, techniques, procedures, and some observation and diagnosis of reading difficulties. Prerequisite: 251; taken concurrently with 425 and 434. (2)

421 TEACHERS AND THE LAW

A brief study of students', parents', and teachers' rights and responsibilities with some emphasis of the question of liability. Prerequisite: 253. (1)

425 GENERAL METHODS—SECONDARY

Curriculum, materials, and methods of secondary teaching; observation and discussion. Prerequisites: 251, EPSY 368. 2.50 GPA (4)

430 STUDENT TEACHING—PRIMARY (SINGLE)

Teaching in classrooms of local public schools under the direct supervision of the School of Education faculty and classroom teachers. Prerequisites: 253 or 321, 322 or 324, 325, 326, 408, 410, 412. 2.50 GPA. Concurrent enrollment in 435. (10)

432 STUDENT TEACHING—UPPER ELEMENTARY (SINGLE)

Teaching in classrooms of local public schools under the direct supervision of the School of Education faculty and classroom teachers. Prerequisites: 251 or 321, 323 or 324, 325, 326, 408, 410, 412. 2.50 GPA. Concurrent enrollment in 435. (10)

434 STUDENT TEACHING—ELEMENTARY (DUAL)

Designed for persons who do dual student teaching. Ten weeks of teaching in classrooms of local public schools under the direct supervision of School of Education faculty and classroom teachers. Prerequisites: EDUC 253 or 321; 322, 323, or 324; and 325, 326, 408, 410, and 412. 2.50 GPA. Concurrent enrollment in 435. (8)

435 PROFESSIONAL SEMINAR

An opportunity for students to share experiences with an exchange of ideas on pupil behavior, curriculum practices, and ways of improving teaching performance. (Must be taken concurrently with 430 or 432.) (2)

436 ALTERNATE LEVEL STUDENT TEACHING—ELEMENTARY

A course designed to give some knowledge, understanding, and study of children, subject matter fields, and materials in the student's alternate teaching level plus student teaching on that level. Students who have completed secondary preferred level student teaching should enroll in this course. (6)

437 ALTERNATE LEVEL STUDENT TEACHING—SECONDARY

A course designed to give some knowledge, understanding, and study of children, subject matter fields, and materials in the student's alternate teaching level plus student teaching on that level. Students who have completed elementary preferred level student teaching should enroll in this course. Independent study card required (6)

440-448 SPECIAL METHODS IN TEACHING SECONDARY SCHOOLS SUBJECTS

Curriculum, methods, and materials of instruction in a variety of subjects; may be taken for graduate credit.

440 SEMINAR IN SECONDARY ART EDUCATION (2)

441 METHODS OF TEACHING SECRETARIAL SUBJECTS

Application of research findings and psychological principles to the teaching of shorthand, office practice, simulation, word processing, and related subjects. Prerequisites: advanced typing and advanced shorthand. (2)

442 METHODS OF TEACHING GENERAL BUSINESS SUBJECTS

Application of research findings and psychological principles to the teaching of general business, consumer economics, economics, business law, business mathematics, and business communications subjects. Prerequisites: ECON 150, BA 281, EDUC 341, 342. (2)

443 CHEMISTRY IN THE SECONDARY SCHOOL (2)

444 ENGLISH IN THE SECONDARY SCHOOL
Development of teaching aids and methods; demonstrations of methods and strategy of master teachers. (2)

445 METHODS IN TEACHING FOREIGN LANGUAGES

Theory and techniques of foreign language teaching; special problems in the student's major language, emphasis on audiolingual techniques. G (2)

446 MATHEMATICS IN THE SECONDARY SCHOOL (2)

447 SCIENCE IN THE SECONDARY SCHOOL (2)

448 SOCIAL STUDIES IN THE SECONDARY SCHOOL (2)

449 COMPUTER SCIENCE IN THE SECONDARY SCHOOL (2)

451 ADMINISTRATION OF THE SCHOOL LIBRARY

Library organization and administration in the elementary and secondary schools. G (2)

452 BASIC REFERENCE MATERIALS

Those services of a school librarian related to the preservation of all materials which form the sources of reference. G (2)

453 PROCESSING SCHOOL LIBRARY MATERIALS

Classification, cataloging, and technical processing of materials. G (2)

454 SELECTION OF LEARNING RESOURCE MATERIALS

Criteria, professional literature, and techniques of evaluation of library materials (print and non-print); the librarian's responsibility to faculty, students, and the general public. G (2)

455 INSTRUCTIONAL MATERIALS

Audio and visual materials and aids, their use, organization, and administration. G (2)

456 STORYTELLING

A combination of discovery and practicum in the art of storytelling. Investigates the values and background of storytelling, the various types and forms of stories, techniques of choosing and of telling stories. Some off-campus practice. Demonstrations and joint storytelling by and with instructor. (4)

457 PREPARATION AND UTILIZATION OF MEDIA

The production and use of a variety of instructional materials, flat pictures, charts, maps, and the 35mm camera; participants produce items useful in instruction. \$10.00 lab fee is charged. G (3 or 4)

465 STUDENT TEACHING—SECONDARY (SINGLE)

Teaching in the public schools under the direction and supervision of classroom and university teachers. Prerequisites: 251, 425, and EPSY 368. 2.50 GPA. May be taken concurrently with 467. (10)

466 STUDENT TEACHING—SECONDARY (DUAL)

Designed for persons who do dual student teaching. Ten weeks of teaching in the public schools under the direction and supervision of classroom and university teachers. Prerequisites: EDUC 251, 425, and EPSY 368. 2.50 GPA. May be taken concurrently with 467. (8)

467 EVALUATION

Evaluation of school experiences; problems in connection with development, organization, and administration of tests (standardized and teacher-made). Required of fifth-year students. Prerequisite: student teaching or teaching experience; EDUC 251, 253, EPSY 368. May be taken concurrently with student teaching. G (2)

473 PARENT-TEACHER RELATIONSHIPS

Issues and skills important in conferencing and parent-teacher relationships. Emphasis on effective communication skills. Special education majors and teachers examine relevant placement processes and parent needs. (2)

479 SPECIAL TECHNIQUES IN READING

Individual diagnostic assessment of reading problems using both formal and informal testing techniques. Special instructional methods for remediation for both Title I and special education children. Practicum required. Prerequisite: 325 or equivalent. (4)

483 PRIMARY READING

Materials and methods of the primary reading program and its relation to other activities. Prerequisite: teaching experience or concurrently with student teaching. G (2)

485 THE GIFTED CHILD

A study of the gifted child, characteristics and problems, and school procedures designed to further development. G (2)

488 READING CENTER WORKSHOP

Clinical study of reading problems and suggested corrective measures; to be taken concurrently with 489. Prerequisite: teaching experience. S G (2)

489 DIRECTED TEACHING IN READING CENTERS

Directed observation and teaching in summer remedial classes in public schools; to be taken concurrently with 488. Prerequisite: teaching experience. S G (4)

496 LABORATORY WORKSHOP

Practical course using elementary-age children in a classroom situation working out specific problems; provision will be made for some active participation of the university students. Prerequisite: conference with the instructor or the dean of the School of Education. G

497 SPECIAL PROJECT

Individual study and research on educational problems or additional laboratory experience in public school classrooms. Prerequisite: consent of the dean. G (1-4)

501 WORKSHOPS

Graduate workshops in special fields for varying lengths of time. (1-4)

515 PROFESSIONAL SEMINAR: CONTINUING LEVEL, TEACHERS

The preparation and sharing of selected topics related to the minimum generic standards needs of the individual participants. Required for the continuing level certification of teachers. (2)

516 TEACHER SUPERVISION

Identification and development of supervisory skills for teachers who work with other adults in the classroom. (1)

525 CURRENT PRACTICES AND ISSUES IN READING

To examine current practices and issues in the field of reading as described through educational research. The research findings will be applied to current classroom practices. Students will be encouraged to pursue specific areas of interest within the broad area of reading instruction. Prerequisite: 325 or equivalent and teaching experience. (2-4)

527 PSYCHOLOGY OF READING

Principles of reading, perception, word recognition, concept development, and meaning in reading will be explored. The psychological and physiological aspects of the reading act will be examined in relationship to successful reading achievement. Prerequisite: 325 or equivalent and teaching experience. (2)

544 RESEARCH AND PROGRAM EVALUATION

Knowledge of student and class evaluation techniques; the ability to select and interpret tests; knowledge of research design; the ability to interpret educational research; the ability to identify, locate, and acquire topical research and related literature; and the ability to use the results of research or evaluation to propose program changes. (2)

545 METHODS AND TECHNIQUES OF RESEARCH

Seminar in research methods and techniques in education with emphasis on designing a research project in the student's area of interest. Required for M.A. Prerequisite: consultation with student's adviser and admission to the graduate program. (2)

550 SCHOOL FINANCE

Local, state and federal contributors to school finance, its philosophy and development; the development and administration of a school budget. (2)

551 EDUCATIONAL LAW

Study of contemporary federal, state, and local statutes, regulations, and case law and their application to public and private schools (K-12). (2)

552 EDUCATIONAL ADMINISTRATION

Administration and supervision of school personnel, facilities, and programs; with emphasis on the human relationships in that setting. Prerequisite: teaching experience or consent of the dean. (3)

554 SEMINAR IN EDUCATIONAL ADMINISTRATION

The preparation and sharing of selected presentations related to needs of individual participants. Required for continuing certification of principals and program administrators. Registration must take place in the fall semester and participation will be continuous for the academic year. (2)

555 ADMINISTRATION AND SUPERVISION WORKSHOP

Projects determined by the class; typical projects include curriculum planning and adjustment, public relations programs, personnel employment and in-service training; financing building and educational programs. Prerequisite: one course in administration or supervision. (2)

556 SECONDARY AND MIDDLE SCHOOL CURRICULUM

A variety of facets of secondary and middle school programs: finance, curriculum, discipline, evaluation, classroom management, the basic education bill, legislative changes, and special education. Development of secondary and middle schools from their beginnings to the present. Critical issues in the education scene today. (3)

558 INTERNSHIP IN EDUCATIONAL ADMINISTRATION

Internship in educational administration planned with the School of Education in cooperation with selected educational administrators. Prerequisite: course work in educational administration and admission to the graduate program. (2-4)

571 HISTORY AND PHILOSOPHY OF HIGHER EDUCATION

Historical perspective and current status; development of functions and structures; issues in curriculum; philosophy of administration; case studies. (4)

573 STUDENT PERSONNEL WORK IN HIGHER EDUCATION

Student personnel services in higher education; use of personnel data; co-curricular activities; student welfare; contemporary trends in counseling problems related to student life. (4)

579 DIAGNOSIS AND REMEDIATION IN READING

Causative factors relating to reading difficulties; some opportunity to apply remediation techniques; open to those with teaching experience. (2)

580 CURRICULUM DEVELOPMENT

Types of curriculum organizations, programs and techniques of curriculum development. (2)

585 COMPARATIVE EDUCATION

Comparison and investigation of certain materials and cultural systems of education throughout the world. (2)



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586 SOCIOLOGY OF EDUCATION

The nature and functioning of the educational system will be examined from a sociological perspective. Topics include: education, stratification, and social change; the school as a complex organization; the school as a social institution; and the sociology of learning. (4)

587 HISTORY OF EDUCATION

Great educators, educational theories, and educational systems from antiquity to the present. (2)

589 PHILOSOPHY OF EDUCATION

Philosophical and theoretical foundations of education. (3)

590 GRADUATE SEMINAR

A workshop for all Master of Arts candidates in the School of Education which provides a forum for exchange of research ideas and problems; candidates should register for this seminar for assistance in fulfilling requirement. No credit is given, nor is tuition assessed. (0)

597 INDEPENDENT STUDY

Projects of varying length related to educational issues or concerns of the individual participant and approved by an appropriate faculty member and the dean. (1-4)

598 STUDIES IN EDUCATION

A research paper or project on an educational issue selected jointly by the student and the graduate adviser. It will be reviewed by the student's graduate committee. (2)

599 THESIS

For Master of Arts candidates who elect to write a thesis instead of two research papers. The thesis problem will be chosen from the candidate's major field of concentration and must be approved by the candidate's Graduate Committee. Candidates expected to defend their thesis in a final oral examination conducted by their committee. (3-4)

EDUCATIONAL PSYCHOLOGY

368 EDUCATIONAL PSYCHOLOGY

Principles and research in human learning and their implications for curriculum and instruction. Prerequisite: EDUC 251, 253. (4)

501 WORKSHOPS

Graduate workshops in special fields for varying lengths of time. (1-4)

512 GROUP PROCESS AND THE INDIVIDUAL

A human interaction laboratory to facilitate the exploration of the self concept through the mechanisms of interpersonal interactions and feedback. Emphasis placed on the acquisition of skill in self-exploration, role identification, and climate-making. G (2)

535 FOUNDATIONS OF GUIDANCE

The focus is on developing an understanding of the services and processes available to assist individuals in making plans and decisions according to their own life pattern. G (4)

536 AFFECTIVE CLASSROOM TECHNIQUES

This course will explore various techniques designed to facilitate understanding of self and others; methods for working with students. Prerequisite: student teaching or graduate status. Laboratory experience as arranged. G (2)

537 REALITY DISCUSSION TECHNIQUES

The use of Reality Therapy in a helping relationship—schools, social agencies, mental health clinics, or university residences. Laboratory experience as arranged. Prerequisite: 553. G (2)

551 REFLECTIVE SKILLS PRACTICUM

A mini-practicum in the techniques of counseling; enrollment limited to students beginning the master's degree program in Counseling and Guidance, and is a prerequisite to admission on regular status to the Counseling and Guidance master's program. The practicum makes use of counseling sessions with clients utilizing verbal and non-verbal attending behavior. (1)

552 SOCIAL LEARNING-MODELING PRACTICUM

A mini-practicum in the theory and techniques of social learning and role modeling. Prerequisite: 551. (1)

553 REALITY THERAPY PRACTICUM

A mini-practicum in counseling using the theory and techniques of reality therapy. Prerequisites: 552 and 561. (1)

554 GESTALT THERAPY PRACTICUM

A mini-practicum in counseling using the theory and techniques of Gestalt therapy. Prerequisites: 553 and 561. (1)

561 BASIC RELATIONSHIPS IN COUNSELING

A study of the theory, process, techniques, and characteristics of the counseling relationship. A basic course for M.A. students in the Counseling and Guidance program. (4)

563 PRACTICUM IN GROUP PROCESS AND LEADERSHIP

A human interaction laboratory which explores interpersonal operations in groups and facilitates the development of self-insight; emphasis on leadership and development of skill in diagnosing individual, group, and organizational behavior patterns and influences. Students will co-facilitate a laboratory group. Prerequisite: 512. (2)

565 ADVANCED HUMAN DEVELOPMENT

A comparative study of human development will be made at various levels of development through observational assessments using non-standardized instruments: e.g., sociometric scales, autobiographies, interviews, interaction analysis and other appropriate measurements. A practicum (a minimum of one hour each week) is required in a school or appropriate agency. Pre-requisite: Fifth year or graduate status. (4)

569 CAREER GUIDANCE

A study of careers, theories of choice, and guidance techniques. (4)

570 FIELDWORK IN COUNSELING AND GUIDANCE

A culminating practicum of field experience in schools or agencies using theory, skills, and techniques previously learned. A variety of work experiences with both individuals and groups. Students incorporate consultation experience following the Adlerian model. (4)

575 MENTAL HEALTH

Basic mental health principles as related to interpersonal relationships. Focus on self-understanding. Laboratory experiences as arranged. (4)

578 BEHAVIORAL PROBLEMS

Adlerian concepts provide basis for observation, motivation, modification, and life style assessment. Skills for assisting people in developing responsibility for their own behavior is focused. Laboratory experience as arranged. (4)

583 CURRENT ISSUES IN EXCEPTIONALITY

This course will concentrate on the characteristics of exceptional students and the counselor's role in dealing with a variety of problems they may have. The following areas will be studied: learning disabilities, emotional problems, physical problems, and the gifted student. Given every other interim. G (2-4)

SPECIAL EDUCATION

190 EXCEPTIONAL CHILDREN AND ADULTS

Introduction to the needs and characteristics of exceptional children and adults. Federal and state legislation, current issues, and practices of delivering services to handicapped individuals. Designed as an overview of the field for undergraduate students in special education, general education, nursing, counseling, and other related fields. (3)

191 OBSERVATION IN SPECIAL EDUCATION

Observation in special education settings in the local area. May be taken concurrently with SPED 190. No prerequisite. (1)

290 INTRODUCTION TO LEARNING DISABILITIES

Overview of the field of learning disabilities, including concepts, research practices, early identification, and remediation. (3)



296 INTRODUCTION TO HEALTH AND PHYSICAL IMPAIRMENTS

Study of anatomical, physiological, social, and educational problems of those with orthopedic disabilities or health problems. (2)

NOTE: PREREQUISITES FOR 300/400 LEVEL SPECIAL EDUCATION: EDUC 251 or 253 or consent of instructor. Students not majoring in education may be excused from this requirement.

390 INTRODUCTION TO DEVELOPMENTAL DISABILITIES

A study of the emotional, social, physical, and mental characteristics of the developmentally disabled. Methods of classifying, diagnosing, and teaching mentally retarded children and adults from medical, psychological, social, and educational points of view. (3)

393 INTRODUCTION TO BEHAVIOR DISORDERS

Current problems and issues as they apply to the education of children with behavior disorders. Includes use of behavior modification and classroom management techniques. (3)

395 INTRODUCTION TO LANGUAGE DEVELOPMENT AND DISORDERS

Introduction to language disorders, assessment, and intervention. Focus on theories of language development and normal language acquisition. (2)

396 BASIC ASSESSMENT OF LEARNING PROBLEMS

An overview of the diagnosis of learning problems as it relates to teaching. Emphasis on ecological and informal tests to determine where the child is functioning. (2)

397 FORMAL ASSESSMENT OF LEARNING PROBLEMS

Study of a wide range of formal screening and diagnostic measures. Emphasis on the selection and use of appropriate tests for making educational decisions. (2)

399 PRACTICUM IN SPECIAL EDUCATION

Experience with special education children or adults in a supervised setting. 1 hour credit given after successful completion of 35 clock hours. Prerequisite: SPED 190 or permission of instructor. (1-4)

403 PARENT/PROFESSIONAL PARTNERSHIP IN SPECIAL EDUCATION

Presentation of the techniques for working effectively with parents of handicapped children. Discussion of the placement committee process and of the rights of parents. (2)

405 CURRICULUM FOR EXCEPTIONAL STUDENTS IN THE ELEMENTARY SCHOOL

Focus on teaching academic, social, and adaptive behavior skills to mild and moderately handicapped children. Includes writing individual education plans, precision teaching, direct instruction, task analysis, and learning sequences. Prerequisite: General Methods. (3)

406 CURRICULUM FOR EXCEPTIONAL STUDENTS IN THE SECONDARY SCHOOL

Curriculum content and planning, including academic subjects, life adjustments, and career counseling for mild to moderately handicapped adolescents and adults. Includes writing individualized educational plans (IEP) and behavioral objectives. (3)

438 STUDENT TEACHING IN ELEMENTARY SPECIAL EDUCATION

Teaching in special education classrooms of public schools under the direction and supervision of classroom and university teachers. 8 weeks. Prerequisite: consent of instructor. (6)

439 STUDENT TEACHING IN SECONDARY SPECIAL EDUCATION

Teaching in special education classrooms of public schools under the direction and supervision of classroom and university teachers. 8 weeks. Prerequisite: consent of instructor. (6)

475 EFFECTIVE UTILIZATION OF PARA-PROFESSIONALS AND COMMUNITY RESOURCES

Emphasis on management of teacher aids and parent and student volunteers in the special education classroom. (1)

479 SPECIAL TECHNIQUES IN READING

Individual diagnostic assessment of reading problems using both formal and informal testing techniques. Special instructional methods for remediation. Practicum required. Prerequisite: EDUC 325 or equivalent. (4)

490 EARLY LEARNING EXPERIENCES FOR THE HANDICAPPED CHILD

Diagnostic and remedial techniques used in early childhood education with handicapped children. Review of normal and atypical child development and their implications for the learning process. (2)

491 PROGRAMMING EARLY CHILDHOOD EDUCATION FOR THE HANDICAPPED

In-depth study in the administration of early childhood programs with emphasis on remediation techniques and interdisciplinary approaches. Prerequisite: SPED 490. (2)

494 COMPUTER APPLICATION FOR THE HANDICAPPED

An introduction into the application of computer technology with handicapped students. Focus on current issues and uses of computer technology including computer assisted instruction, software evaluation, pupil and data management, and computer aids for the handicapped. (2)

499 SEMINAR IN SPECIAL EDUCATION

Current topics on the teaching of handicapped children and adults. (2)

501 WORKSHOPS IN SPECIAL EDUCATION

Graduate workshops in special education for varying lengths of time. (1-4)

520 TEACHING HANDICAPPED CHILDREN IN THE REGULAR CLASSROOM

An examination of teaching strategies appropriate for exceptional children in regular classrooms. Emphasis on the needs of exceptional children, program modification, and classroom management. Designed for regular educators. (2)

521 TEACHING HANDICAPPED ADOLESCENTS IN THE REGULAR CLASSROOM

An examination of teaching strategies appropriate for exceptional adolescents in regular classrooms. Emphasis on the needs of exceptional adolescents, program modification, and classroom management. Designed for regular educators. (2)

530 DIAGNOSTIC PROCEDURES

Discussion of the use of diagnostic information in making educational decisions. Formal and informal tests, ecological information and interviews will be emphasized as the basis for recommending instructional procedures. Prerequisite: SPED 397 or permission of instructor. (3)

531 SEVERELY AND PROFOUNDLY HANDICAPPED IN SCHOOL AND SOCIETY

Introduction to the physical, social, and educational environments of the severely and profoundly handicapped and the consequent implications for the education and training process. Interdisciplinary concepts, terminology, and instructional models will be examined. (2)

532 EDUCATION AND TRAINING OF THE SEVERELY AND PROFOUNDLY HANDICAPPED

In-depth study of educational prescription and programming for the severely and profoundly handicapped. Emphasis on teaching strategies and curriculum modification as they apply to this population. (2)

533 SEMINAR IN DEVELOPMENTAL DISABILITIES

Current issues and problems related to the education of children and adults with developmental disabilities. (2)

E

English

534 SEMINAR IN BEHAVIOR DISORDERS

Current issues and problems related to the education of children and adults with behavior disorders. (2)

535 SEMINAR IN LEARNING DISABILITIES

Current issues and problems related to the education of children and adults with learning disabilities. (2)

537 SPECIAL EDUCATION: STUDENT TEACHING

Teaching in special education classrooms under the direction and supervision of classroom and university teachers. Prerequisite: Teaching credential and consent of instructor. (4)

570 APPLIED BEHAVIOR ANALYSIS FOR TEACHERS

A survey of the principles and techniques of applied behavior analysis. Includes behavior modification, self-control techniques, cognitive behavior modification, and research design. (2)

575 INTRODUCTION TO THE CONSULTANT TEACHER IN SPECIAL EDUCATION

Introduction to the principles and practices of a consulting teacher model in special education. Focus on instructional delivery appropriate for providing direct and indirect services to handicapped children in mainstream classrooms. Includes a one hour practicum. (3)

576 COMMUNICATION SKILLS FOR THE CONSULTING TEACHER

Emphasis on the interpersonal skills necessary for the consulting teacher in special education. Exploration of variables involved in developing cooperation between consultants and regular classroom teachers. Includes a one hour practicum. (3)

588 ADMINISTRATION OF SPECIAL EDUCATION PROGRAMS

Investigation of existing special education administrative units, pupil placement procedures, student staffings, program reimbursement procedures, and federal funding models. (3)

591 RESEARCH IN SPECIAL EDUCATION

Review of current research on selected topics in special education. (1)

592 RESEARCH IN LEARNING DISABILITIES

A combination of organized coursework and independent study in learning disabilities. Specialized study in a selected topic. Prerequisite: SPED 535 or permission of instructor. (1)

593 RESEARCH IN BEHAVIOR DISORDERS

A combination of organized coursework and independent study in behavior disorders. Specialized study in a selected topic. Prerequisite: SPED 534 or permission of instructor. (1)

594 RESEARCH IN DEVELOPMENTAL DISABILITIES

A combination of organized coursework and independent study in developmental disabilities. Specialized study in a selected topic. Prerequisite: SPED 533 or permission of instructor. (1)

595 SEMINAR IN LANGUAGE DISORDERS OF EXCEPTIONAL CHILDREN

Approaches to the assessment and remediation of children with language disorders. Prerequisite: SPED 395 or permission of instructor. (2)

English

As a discipline English assists students in achieving excellence in writing, discernment in reading, appreciation of human experience and aesthetic values, and understanding of the processes of critical and creative expression.

Special programs include concentrations in literature, writing, and publishing. The English Department also supports the London Program and often offers an interim study tour to the British Isles.

FACULTY

Eyler, Chair; P. Benton, Bergman, Campbell, Jansen-Jaech, G. Johnson, L. Johnson, Jones, Klopsch, D. M. Martin, G. Martin, Rahn, Reigstad, D. Seal. Assisted by M. Benton, Blades, Elliott, Monroe, Sherry.

BACHELOR OF ARTS MAJOR: At least 32 semester hours in English beyond 101, including 241, 251, 252, at least one course in a historical period (342, 343, 381, 384, 389, 390, 391, 392), at least one course in a major author (382, 383, 440, 451, 452), and 12 hours of electives, excluding interim courses and internships. All English majors must complete at least two years of a foreign language at the university level, or the equivalent. (See College of Arts and Sciences Foreign Language Requirement, Option I.) At some time during the junior year, each major must initiate a meeting with a committee of departmental faculty, chosen by the student and his or her adviser, to discuss the course planned for the final two or three semesters in light of the student's particular interests and goals.

CERTIFICATE IN WRITING: Majors are encouraged to include courses in writing in their program. Those majors who take three writing courses beyond 101 and prepare a portfolio of their work will be awarded a "certificate in writing."

MINOR (EMPHASIS ON LITERATURE): 20 semester hours, beyond 101, excluding courses for interim credit, of which at least 8 hours should be upper division. These courses should include 4 hours in American literature, 4 hours in British literature before 1700, 4 hours in British literature after 1700, and at least 4 additional hours in literature.

MINOR (EMPHASIS ON WRITING): 20 semester hours, beyond 101, excluding courses for interim credit, of which at least 8 hours should be upper division. These courses should include 4 hours in British literature before 1700, 4 hours in American or British literature after 1700, and 12 hours in writing courses drawn from 201, 225, 227, 327, 328, 341, 403, 421, or other approved courses in writing.

MINOR (EMPHASIS ON PUBLISHING AND PRINTING ARTS): English 312, 321, 322; three electives from at least two of the following categories:

1. Writing-English 201, 225, 227, 324, 326, 327, 328, Communication Arts 283, 384.
2. Management-Business Administration 281, 282, 370, Computer Science 110, 144, 210, Statistics 231.
3. Design-Art 326, 370, 396, 426, 470, 496, Communication Arts 380.

PROSPECTIVE TEACHERS: Students preparing to teach in junior or senior high school may earn either a Bachelor of Arts in English with certification from the School of Education, or a Bachelor of Arts in Education with a teaching major in English. See the School of Education section of this catalog for the additional requirements for certification or the Bachelor of Arts in Education.

COURSE OFFERINGS

AMERICAN LITERATURE

- 241 AMERICAN LITERATURE
 342 TWENTIETH CENTURY AMERICAN POETRY
 343 TWENTIETH CENTURY AMERICAN FICTION AND DRAMA
 345 CANADIAN FICTION
 440 SEMINAR—A MAJOR AMERICAN AUTHOR

BRITISH LITERATURE

- 251 ENGLISH LITERATURE: BEGINNINGS TO 1750
 252 ENGLISH LITERATURE: AFTER 1750
 381 STUDIES IN MEDIEVAL LITERATURE
 382 CHAUCER AND HIS AGE
 383 SHAKESPEARE
 384 ENGLISH RENAISSANCE LITERATURE
 389 RESTORATION AND EIGHTEENTH CENTURY ENGLISH LITERATURE
 390 THE ENGLISH ROMANTIC MOVEMENT
 391 VICTORIAN LITERATURE
 392 TWENTIETH CENTURY BRITISH LITERATURE
 451 SEMINAR—A MAJOR BRITISH AUTHOR BEFORE 1750
 452 SEMINAR—A MAJOR BRITISH AUTHOR SINCE 1750

GENRE AND SPECIAL STUDIES

- 216 POETRY
 217 SHORT STORY
 218 DRAMA
 230 CONTEMPORARY LITERATURE
 231 MASTERPIECES OF EUROPEAN LITERATURE
 363 CHILDREN'S LITERATURE
 364 SPECIAL TOPICS IN CHILDREN'S LITERATURE
 365 FANTASY AND FAIRY TALES
 381 STUDIES IN MEDIEVAL LITERATURE
 491, 492 INDEPENDENT READING AND RESEARCH
 597 GRADUATE RESEARCH

WRITING, LANGUAGE, AND PUBLISHING

- 100 BASIC WRITING SKILLS
 101 COLLEGE ENGLISH
 201 INTERMEDIATE WRITING
 225 AUTOBIOGRAPHICAL WRITING
 227 IMAGINATIVE WRITING I
 321 THE WORLD OF THE BOOK
 322 EDITORIAL PROCEDURES
 324 FREELANCE WRITING
 326 WRITING FOR CHILDREN
 327 IMAGINATIVE WRITING II
 328 ADVANCED COMPOSITION
 400 LINGUISTICS
 402 HISTORY OF THE ENGLISH LANGUAGE
 403 MODERN ENGLISH GRAMMAR
 421 TUTORIAL IN WRITING

100 BASIC WRITING SKILLS

An intensive review and practice of mechanics, the fundamentals of grammar, and the structure of sentences and paragraphs. Does not count toward fulfillment of general university writing requirement. (2)

101 COLLEGE ENGLISH

Develops a student's powers to read, think, and write effectively. Emphasis on short papers and guided revision. Includes a unit on library research techniques. I II (4)

201 INTERMEDIATE WRITING

Opportunities to practice and develop writing by exploring selected topics from various disciplines. Some emphasis on rewriting—focusing the material and adjusting the style for different audiences. One section may be devoted to autobiographical writing. (Prerequisite: 101 or its equivalent, Advanced Placement, or consent of instructor.) I II (4)

216 POETRY

A study of poems and conventions of poetry from the Greek classics to modern projective verse. Intended to develop the reader's ability to respond with sensitivity and discrimination to a rich variety of poetic forms. I (4)

217 SHORT STORY

Examines the development of short fiction, concentrating on themes and techniques of the genre. Includes stories by American, British, and Continental writers. II (4)

218 DRAMA

A survey of masterpieces from classical Greece to the present, with emphasis on the basic elements of drama (plot, character, language) and on the traditional genres. II (4)

225 AUTOBIOGRAPHICAL WRITING

Reading autobiography and writing parts of one's own, with an emphasis on how writing style and personal identity complement each other. II (4)

227 IMAGINATIVE WRITING I

A beginning workshop in writing poetry and short fiction. Includes a study of techniques and forms to develop critical standards and an understanding of the writing process. (Prerequisite: 101 or its equivalent, Advanced Placement, or consent of instructor.) I (4)

230 CONTEMPORARY LITERATURE

Emphasis on American fiction since 1950. I (4)

231 MASTERPIECES OF EUROPEAN LITERATURE

Representative works of the literature of Western Europe, especially classical, medieval, and Renaissance. II (4)

241 AMERICAN LITERATURE

The continuity of themes and forms in American prose, poetry, and fiction from colonization to the First World War. Emphasis on major works of the 19th century. II (4)

251 ENGLISH LITERATURE: BEGINNINGS TO 1750

Emphasis on the continuity and variety of English literature from Beowulf through Neo-classicism and the early novel. I (4)

252 ENGLISH LITERATURE: AFTER 1750

English literature, especially poetry, from the emergence of romanticism to the 20th century. II (4)

321 THE WORLD OF THE BOOK

An introduction to the organization and vocabulary of the publishing industry, the history of the book and presses, and the basic skills of copy-editing and design layout—in short, the complex process by which manuscript copy is brought to finished print. I (4)

322 EDITORIAL PROCEDURES

Practical experience with actual book manuscripts in a broad range of editorial functions, from copy-editing and design to preparing cost estimates and marketing plans. II (2)

E

English



E

English

324 FREELANCE WRITING

A course in writing for publication, with primary emphasis on the feature article. Intended to help students develop research and editorial skills; to help them produce writing that is clear, informative, and expressive; to enhance their sense of audience; and to introduce them to procedures for submitting for magazine publication. II (4)

326 WRITING FOR CHILDREN

A workshop in writing fiction and non-fiction for children and teenagers, with an introduction to the varieties of contemporary children's literature. II (4)

327 IMAGINATIVE WRITING II

An advanced workshop in writing poetry and short fiction. Some attention will be given to procedures for submitting manuscript for publication. II (4)

328 ADVANCED COMPOSITION

A study of rhetorical principles used in writing persuasively and imaginatively. Required for certification by the School of Education. I II (4)

342 TWENTIETH CENTURY AMERICAN POETRY

Representative poets from the generation of Robert Frost and Ezra Pound to our contemporaries. a/y II (4)

343 TWENTIETH CENTURY AMERICAN FICTION AND DRAMA

Literature and society to the 1950s, with emphasis on major authors between the Wars, including Hemingway, Faulkner, O'Neill. a/y II (4)

345 CANADIAN FICTION

Novels and short stories by Anglo-Canadians, with some attention to French-Canadian literature in translation. I (4)

363 CHILDREN'S LITERATURE

An introduction to a rich literary tradition, with analysis in depth of such authors as H. C. Andersen, Tolkien, Lewis, Potter, Wilder, and LeGuin. I II (4)

364 SPECIAL TOPICS IN CHILDREN'S LITERATURE

Content varies each year. Possible topics include genres, themes, historical periods, and traditions. May be repeated for credit with different topic. I (4)

365 FAIRY TALES AND FANTASY

Selected fairy tales are told, and various ways to interpret them are explored. Fantasy is studied as a genre, with emphasis on kinds of fantasies, such as pure fantasy, sword and sorcery, the detective novel, science fiction, and horror fiction. I (4)

381 STUDIES IN MEDIEVAL LITERATURE

Studies in the literature of Western Europe from 700 to 1500 excluding Chaucer. Consideration of genres, themes, and the place of literature in medieval life. a/y II (4)

382 CHAUCER AND HIS AGE

A study of Chaucer's major works, especially *The Canterbury Tales*, in their lively 14th century setting. Includes an introduction to the development of the English language. II (4)

383 SHAKESPEARE

Ten to twelve representative plays. Recommended as background: 251. I (4)

384 ENGLISH RENAISSANCE LITERATURE

Studies the Golden Age of English literature. Selected poets from Wyatt to Marvell, including Sidney, Spenser, Shakespeare, Donne, and Jonson; selected playwrights from Kyd to Webster; selected prose from More to Bacon and Browne. (4)

389 RESTORATION AND EIGHTEENTH CENTURY ENGLISH LITERATURE

A study of neo-classic writings and the developing social awareness of the preromantic age: Dryden and Pope to Johnson and Blake. Examination of the beginnings of the novel in Defoe, Richardson, Fielding, Smollett, and Sterne. I (4)

390 THE ENGLISH ROMANTIC MOVEMENT

A study of the romantic awakening in England: Blake, Wordsworth, Coleridge, Shelley, Keats, Byron, and others. Attention also to novelists of the period such as Austen and Scott. I (4)

391 VICTORIAN LITERATURE

Selected authors (including Carlyle, Tennyson, Dickens, and Hardy) and topics from a period of rapid and momentous social change. II (4)

392 TWENTIETH CENTURY BRITISH LITERATURE

Selected playwrights from Shaw to Beckett; poetry of Yeats, Hardy, Thomas, and Auden; fiction of Joyce, Woolf, Lawrence, Greene, Lessing, and others. II (4)

400 LINGUISTICS

See Languages.

402 HISTORY OF THE ENGLISH LANGUAGE

The development of English from its Germanic origins to its modern structure, spelling, and rich vocabulary, drawn from many languages. (2)

403 MODERN ENGLISH GRAMMAR

A study of three major approaches to grammar: the traditional, the structural, and the transformational. Includes introduction to the history of the English language. II (4)

421 TUTORIAL IN WRITING

Guided work in an individual writing project. A plan of study must be approved before the student may register for the course. (1-4)

440 SEMINAR—A MAJOR AMERICAN AUTHOR

Concentrated study of the work, life, influence, and critical reputation of a major American author, including substantial library research. I (4)

451 SEMINAR—A MAJOR BRITISH AUTHOR BEFORE 1750

Concentrated study of the work, life, influence, and critical reputation of a major British author from the Renaissance to the age of Fielding and Dr. Johnson, including substantial library research. a/y II (4)

452 SEMINAR—A MAJOR BRITISH AUTHOR SINCE 1750

Concentrated study of the work, life, influence, and critical reputation of a major British author from the age of Blake to the present, including substantial library research. II (4)

491, 492 INDEPENDENT READING AND RESEARCH

An intensive course in reading. May include a thesis. Intended for upper-division majors. I II (1-4)

597 GRADUATE RESEARCH (1-4)

Environmental Studies Program

E

Environmental Studies Program

Students concerned about or wishing to enter graduate study and career programs in such fields as environmental science, environmental law, or resource management, may enroll in the Environmental Studies Program. A certificate will be awarded students completing requirements listed below, together with a departmental or school major program. A committee consisting of representatives from each of the three major subject matter groupings will approve each student's course program and integrative experiences.

The following specific courses are required:

Earth Sciences 222	4 hours
Economics 150	4 hours
Business Administration 230	4 hours

As part of graduation requirements, all students complete either the distributive core or the Integrated Studies Program. Students in the Environmental Studies Program should select from among the following courses to meet these requirements:

Distributive Core

Arts/Literature: Art 381 and one elective in literature	8 hours
Natural Sciences/Mathematics: Biology 111; Chemistry 104, 105; Computer Science 144; Earth Sciences 101, 131, 202; Mathematics 128, 230; Natural Sciences 106	8 hours
Philosophy: 125; 225 plus 226 or 325 or 326 or 328 or 385; 324; 371; 381; 395; or 427	4 hours
Religion: 351, 382, or 451, and one elective from Biblical Studies or Integrative and Comparative Religious Studies	8 hours
Social Sciences: History 460; Political Science 101, 151, 345, 356; Sociology 101, 240, 331 (Economics 150 may also be counted as fulfilling a core requirement)	8 hours
OR	

CORE II (Integrated Studies Program)

Integrated Studies 111-112, 221-222 or 223-224, 241-242 or 243-244 or 251-252, 351	28 hours
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In the areas of Natural Sciences and Mathematics one additional course (4 hours) is required, which should be selected from those listed above under Distributive Core.

Integrative Experience—4 hours: During the senior year or at another approved time, all students participate in a study-research-action program designed to draw upon the broad background of the above courses and the expertise of their own major fields. Courses may include, but are not limited to, appropriate interim courses; departmental or interdisciplinary seminars; independent study or research courses; field experience and internship programs; employment or volunteer service within community agencies or organizations.

Environmental Studies Committee: Tonn, *Chair*; Bergman, Churney, D. Hansen, Lauer, Lowes, Martinson, Miller, Schwidder, Stivers.



G

Global Studies Program

Global Studies Program

The Global Studies Program is a response to global trends which increasingly affect our lives. The program focuses on the formation and emergence of the modern world and its growing economic, cultural, political, and ecological interdependence. By combining a regional concentration with that of a specific global issue, the Global Studies Program provides students with the knowledge and perspectives they need to understand and to function effectively in today's world.

FACULTY

A committee of faculty and faculty associates administers this program: *Guldin, Chair; Birmingham, Browning, Kelleher, King, Klein, Lowes, Predmore, Rasmussen, Toven, Ulbricht, J. Carr (coordinator).*

GLOBAL STUDIES COMPLEMENTARY MAJOR

The Global Studies major is termed a "complementary" major because it is a second major in addition to a regular disciplinary major. Students electing the Global Studies major are required to declare a traditional disciplinary major before they declare a Global Studies major.

In addition, the Global Studies major is multidisciplinary, drawing both its courses and faculty from departments of the Divisions of Humanities, Natural Sciences, and Social Sciences and from the Schools of the Arts and Business Administration.

MAJOR REQUIREMENTS

The Global Studies Committee chair assists students to select an advisory committee of at least two faculty members from different disciplines. The advisory committee helps students plan their program of studies. Students take a minimum of eight courses (32 semester hours) including:

1. The introductory Global Studies course (4 semester hours): Anthropology 210/History 210, Global Perspectives.
2. Three courses (12 semester hours) from one World Region Cluster, i.e., from the Asia, or Europe, or The Americas clusters.
3. Three courses (12 semester hours) from one Global Issues Cluster, i.e., from the Global Resources and Technological Development; or International Trade; or International Relations; or War, Revolution, and Peace; or Society, Cultures, and Traditions clusters.
4. A concluding seminar (4 semester hours). A special Global Studies seminar is offered on an alternate year basis.
5. Special Requirements.
 - a. Courses selected in each World Region and Global Issues Cluster must be from at least two different disciplines.
 - b. Students must demonstrate proficiency in a language relevant to their World Region and at a level consistent with Option I of the College of Arts and Sciences foreign language requirement. This may be accomplished through proficiency examination or through the equivalent of 16 semester hours of coursework.

- c. Students may not apply more than two courses (8 semester hours) from their primary major or from courses taken to fulfill general university core requirements to the complementary major. However, such special crediting of courses from the primary major to the complementary major must be approved by a student's advisory committee and the Global Studies Committee chair.

GLOBAL STUDIES MINOR

The Global Studies minor parallels the Global Studies major. Students are required to complete five courses (20 semester hours) including:

1. The introductory Global Studies course: Anthropology 210/History 210, Global Perspectives.
2. Three courses from one World Region Cluster or three courses from one Global Issues Cluster (12 semester hours).
3. The Global Studies concluding seminar (4 semester hours).

Students electing the Global Studies minor are to consult with the Global Studies Committee chair and the appropriate cluster coordinator. No more than one course (4 semester hours) can be applied to the Global Studies minor from a student's primary major or from courses taken to fulfill general university core requirements.

COURSES AVAILABLE IN THE GLOBAL STUDIES PROGRAM

- I. Global Perspectives (ANTH 210/HIST 210). Required of all students.
- II. Concluding Global Studies Seminar. Required of all students.
- III. WORLD REGIONS (Choose one region and three courses within that region, distributed as indicated.)
 - A. **Asia Cluster**
Coordinator: E. Clausen (History)
The Asia Cluster encompasses South, Southeast, and East Asia. Select one course from each category and from at least two departments.
 1. *Introduction* (1 course)
Anthropology 350-Cultures and Peoples of Asia
History 109-Traditional China
 2. *Cultural or National Focus* (1 course)
Anthropology 352-Chinese Culture and Society
History 110-Modern China
History 340-Modern Japan
Religion 361-Philosophical and Religious Traditions of India
Religion 362-Philosophical and Religious Traditions of China
 3. *Elective* (1 course)
Any other course in Categories 1 and 2 above.
 - B. **Europe**
Coordinators: C. Browning (History), J. Rasmussen (Languages)
This cluster deals with the cultures and history of Europe. Students may pursue either a national, regional, topical, or period focus. Select one course from each category and from at least two departments.
 1. *Introduction* (1 course)
History 108-Western Civilization
Integrated Studies 111-Nature and Supernature
Integrated Studies 112-From Finite to Infinite
Integrated Studies 222-The Burden of Human Responsibility: 20th Century Europe
Languages 271-Literature and Society in Modern Europe



2. **History and Civilization** (1 course)
 - French 321-Civilization and Culture
 - German 321-German Civilization
 - History 107-Western Civilization
 - History 323-Middle Ages
 - History 324-Renaissance
 - History 325-Reformation
 - History 328-19th Century Europe
 - History 329-Europe and the World Wars: 1914-1945
 - History 333-Revolutionary Russia
 - History 334-Modern Germany
 - History 341/2-17th Century France: French Revolution
 - Scandinavian 321-Vikings
 - Scandinavian 322-Contemporary Scandinavia
 - Spanish 321-Civilization and Culture
3. **Literature and Fine Arts** (1 course)
 - Art 180-Traditions of Western Art
 - Art 280-Modern Art
 - English 231-Masterpieces of European Literature
 - French 421, 422-Masterpieces of French Literature
 - French 431, 432-20th Century French Literature
 - German 421-German Literature: The Age of Goethe
 - German 422-German Literature: The 19th Century
 - German 431-German Literature: The 20th Century
 - German 432-Contemporary German Literature
 - Music 132-Music History I
 - Music 231-Music History II
 - Scandinavian 421-Ibsen, Strindberg, and their Contemporaries
 - Scandinavian 422-20th Century Scandinavian Literature
 - Spanish 421, 422-Masterpieces of Hispanic Literature
 - Spanish 431, 432-20th Century Hispanic Literature
- C. **The Americas**

Coordinator: J. Predmore (Languages)

This cluster focuses attention on the cultures and peoples of South and Central America as well as the non-European populations of North America. The political, cultural, social, and economic bonds tying the Americas together is an allied theme. Select one course from the first category and two from the second; courses must be chosen from at least two departments.

 1. **North American History** (1 course)
 - History 251-Colonial American History
 - History 252-Nineteenth Century American History
 - History 253-Twentieth Century American History
 2. **Electives** (2 courses)
 - Anthropology 330-Cultures and People of Native North America
 - Anthropology 332-Cultures and Peoples of Latin America
 - History 335-Latin American History
 - Religion 383-Religious Experience Among American Minorities
 - Spanish 322-Latin American Civilization and Culture
 - Spanish 432-Modern Latin American Literature
- IV. **GLOBAL ISSUES** (Choose one issue and three courses within that issue, distributed as indicated.)
 - A. **Global Resources & Technological Development**

Coordinator: B. Lowes (Earth Sciences)

Courses in this cluster provide a perspective on how the world's natural resources are distributed and on parameters limiting their distribution and potential, as well as on their contribution to technological development in contemporary societies. Select one course from the first category and two from the second; courses must be chosen from at least two departments.

 1. **Introduction** (1 course)
 - Earth Sciences 101-World Geography
 2. **Topical, Methodological Foci** (2 courses)
 - Earth Sciences 341-Energy and Mineral Resources for the Future
 - Economics 331-International Economics
 - Economics 381-Comparative Economic Systems
 - Integrated Studies 242-The Technological Society: Limits to Growth
 - Political Science 336-International Organization and Law
 - B. **Society, Culture, and Traditions**

Coordinator: L. Klein (Anthropology)

This cluster focuses on the customs and traditions of peoples around the world, emphasizing symbols and interpersonal relationships as reflected in kinship, mythology, the arts, religion, laws, and customs. Select one course from each category and from at least two departments.

1. **Introduction** (1 course)
 - Anthropology 102-Exploring Anthropology: Culture and Society
2. **Religion and Ideology** (1 course)
 - Anthropology 480/Religion 480-Gods, Magic, and Morals
 - Religion 261-Religions of the World
 - Religion 262-Myth, Ritual, and Symbol
 - Sociology 380/Religion 380-Sociology of Religion
3. **Electives** (1 course)
 - a. **Laws:**
 - Anthropology 440-Power, Politics, and Revolution
 - Political Science 381-Comparative Legal Systems
 - Sociology 456-Law, Conflict, and Social Change
 - b. **Customs:**
 - Anthropology 460-Women and Men in World Cultures
 - Sociology 406-Sex Roles and Society
 - History 471-American Thought and Culture
 - c. **Ethnicity:**
 - Anthropology 470-Ethnic Groups
- C. **War, Revolution, and Peace**

Coordinator: J. Bermingham (History)

This topical cluster focuses on the problems and issues of war, revolution, and peace. Students examine these problems conceptually, but also focus on the human elements behind the mechanistic forces leading to war, revolution, and peace. Select one course from each category and from at least two departments.

 1. **Introduction** (1 course)
 - Integrated Studies 243-The Experience of War
 - Integrated Studies 244-Prospects for War and Peace
 2. **Electives: Theoretical Aspects** (1 course)
 - Anthropology 440-Power, Politics, and Revolution
 - Economics 381-Comparative Economic Systems
 - Philosophy 324-Philosophical Analysis of Social Problems
 - Political Science 326-Recent Political Thought
 - Political Science 336-International Organization and Law
 - Political Science 384-Communist Political Systems
 - Psychology 330-Social Psychology
 - Religion 451-Christian Thought and Modern Consciousness
 - Sociology 343-Social Movements and Change
 - Sociology 441-Race, Revolution, and Developing Countries
 3. **Electives: Cases** (1 course)
 - Anthropology 330-Cultures and Peoples of Native North America
 - History 329-Europe and the World Wars: 1914-1945
 - History 333-Revolutionary Russia
 - History 340-Modern Japan
 - History 341/2-17th Century France: French Revolution
 - History 352-The American Revolution
 - Political Science 321-Current International Affairs
- D. **International Trade**

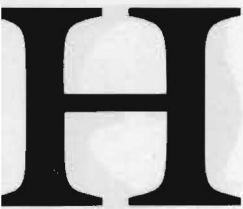
Coordinator: G. King (Business Administration)

This cluster provides a comparative perspective on different socioeconomic systems and on the structure and nature of international trade. Select one course from each category and from at least two departments.

 1. **Introduction** (1 course)
 - Economics 331-International Economics
 2. **International Business Core** (1 course)
 - Business Administration 340-International Business
 - Business Administration 474-International Marketing

Note: Business Administration 340, International Business, is designed for social science students. Students with substantial background should meet this requirement with Business Administration 474, International Marketing.
 3. **Elective** (1 course)
 - Any second international business course (including interim offerings) chosen in consultation with the cluster coordinator.
 - Economics 381-Comparative Economic Systems
 - Political Science 336-International Organization and Law





E. International Relations

Coordinator: P. Ulbricht (Political Science)

This topical cluster focuses on international relations, concepts of international law, and issues before international organizations. Approaches to international relations and models of decision-making will be examined. Students will analyze factors leading to cooperation and conflict on the international scene. Select one course from each category and from at least two departments.

1. Introduction

Political Science 336-International Organization and Law

2. Electives (1 course)

Political Science 231-Current International Affairs
Political Science 338-American Foreign Policy

3. Electives (1 course)

History 356-American Diplomatic History
Economics 331-International Economics
Sociology 441-Race, Revolution, and the Developing Countries

History

Through the study of history at Pacific Lutheran University students gain an understanding and appreciation of the historical perspective. Opportunities for developing analytical and interpretative skills are provided through research and writing projects, internships, class presentations, and study tours. The practice of the historical method leads students off campus to their hometowns, to Europe or China or the American West, and to community institutions, both private and public. The department emphasizes individual advising in relation to both self-directed studies and regular courses. The university library holdings include significant collections in American, European, and non-Western history. The Nisqually Plains Room of the library specializes in Pacific Northwest community studies. Career outlets for majors and minors are either direct or supportive in business, law, teaching, public service, news media, and other occupations.

FACULTY

Nordquist, *Chair*; Bermingham, Browning, Clausen, Ericksen, Malone, Martinson.

BACHELOR OF ARTS MAJOR: Minimum of 32 semester hours, including 4 hours American field, 4 hours-European field, and 4 hours-non-Western field. Students are expected to work closely with the department's faculty advisers to insure the most personalized programs and instruction possible. Majors are urged to meet the foreign language requirement of the College of Arts and Sciences under either Option I or Option II. Those majors who are preparing for public school teaching can meet the state history certification requirement by enrolling in History 460. All senior majors are required to take four hours of seminar credit.

MINOR: 20 semester hours, 12 hours from courses numbered above 300. The minor in history emphasizes a "program focus" and a "program plan," which is arranged by the student in consultation with a departmental adviser.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

COURSE OFFERINGS

Courses in the Department of History are offered in the following areas:

AMERICAN FIELD

- 251 COLONIAL AMERICAN HISTORY
- 252 NINETEENTH CENTURY AMERICAN HISTORY
- 253 TWENTIETH CENTURY AMERICAN HISTORY
- 352 THE AMERICAN REVOLUTION
- 354 THE AMERICAN CIVIL WAR
- 356 AMERICAN DIPLOMATIC HISTORY
- 451 AMERICAN LEGAL HISTORY
- 460 WEST AND NORTHWEST
- 471 HISTORY OF AMERICAN THOUGHT AND CULTURE
- 494 SEMINAR: AMERICAN HISTORY

EUROPEAN FIELD

- 107, 108 HISTORY OF WESTERN CIVILIZATION
- 321 CLASSICAL CIVILIZATION
- 323 THE MIDDLE AGES
- 324 RENAISSANCE
- 325 REFORMATION
- 328 NINETEENTH CENTURY EUROPE
- 329 EUROPE AND THE WORLD WARS: 1914-1945
- 332 ENGLAND: TUDORS AND STUARTS
- 334 MODERN GERMANY, 1848-1945
- 341 SEVENTEENTH CENTURY FRANCE
- 342 THE FRENCH REVOLUTION
- 495 SEMINAR: EUROPEAN HISTORY

NON-WESTERN FIELD

- 109 TRADITIONAL CHINA
- 110 MODERN CHINA
- 210 GLOBAL PERSPECTIVES
- 333 REVOLUTIONARY RUSSIA
- 335 LATIN AMERICAN HISTORY
- 340 MODERN JAPAN

ALL FIELDS

399 INTERNSHIP

401 WORKSHOPS

492 INDEPENDENT STUDY

496 SEMINAR: HISTORY AND HISTORIANS

501 GRADUATE WORKSHOPS

590 GRADUATE SEMINAR

591 DIRECTED STUDY

595 GRADUATE READINGS

598 RESEARCH PROJECT

599 THESIS

107, 108 HISTORY OF WESTERN CIVILIZATION

Analysis of institutions and ideas of selected civilizations. Mesopotamia, Egypt, the Hebrews, Greece, Rome, the rise of Christianity, and Medieval Europe in the first semester; Europe from the Renaissance to the present in the second semester. I II (4, 4)

109 TRADITIONAL CHINA

The historical development of "tradition" in traditional China. The role of the emperor, the life of the peasants, and the development of Confucianism over time. (4)

110 MODERN CHINA

Modern Chinese history. Emphasis on the reasons for the Chinese Revolution, the formation of the People's Republic of China, and the changes and transformations that have characterized China since that date. (4)

210 GLOBAL PERSPECTIVES: THE WORLD IN CHANGE

A survey of global issues affecting the human condition in a rapidly changing and increasingly interdependent world: modernization and development; economic change and international trade; diminishing resources; war and revolution; peace and justice; and cultural diversity. These issues are examined in a multidisciplinary light using case studies drawn from non-Western and Western nations. Emphasis on the development of a global perspective which recognizes human commonalities as well as diversity in perceptions, values, and priorities. (4)

251 COLONIAL AMERICAN HISTORY

American institutions from colonial times to the 1790's; the growth of the colonies and their relationship to the British imperial system.(4)

252 NINETEENTH CENTURY AMERICAN HISTORY

From Jefferson to Theodore Roosevelt; interpretation of eras from social, political, economic, and biographical viewpoints. (4)

253 TWENTIETH CENTURY AMERICAN HISTORY

Trends and events in domestic and foreign affairs since 1900; affluence, urban growth, and social contrasts. (4)

321 CLASSICAL CIVILIZATION

The ancient Mediterranean world with emphasis upon Greek and Roman civilizations.(4)

323 THE MIDDLE AGES

Europe from the disintegration of the Roman Empire to 1300; reading and research in medieval materials.(4)

324 RENAISSANCE

Europe in an age of transition-1300 to 1500. (4)

325 REFORMATION

Political and religious crisis in the 16th century: Lutheranism, Zwinglianism, Anglicanism, Anabaptism, Calvinism, Roman Catholic reform; Weber thesis, the beginnings of Baroque art. (4)

328 NINETEENTH CENTURY EUROPE

The expansion of European civilization from 1800 to 1914. (4)

329 EUROPE AND THE WORLD WARS: 1914-1945

World War I; revolution and return to "normalcy"; depression and the rise of facism; World War II. (4)

332 ENGLAND: TUDORS AND STUARTS

Political, social, economic, legal, and cultural developments. (4)

333 REVOLUTIONARY RUSSIA

Post-Peter the Great Russia; the establishment of Czarist autocracy; the Great Reforms of the 19th century; the rise of the revolutionaries; Bolshevism, Lenin, and the Revolutions of 1917; the consolidation of the Soviet state. (4)

334 MODERN GERMANY, 1848-1945

The Revolutions of 1848 and unification of Germany; Bismarckian and Wilhemian empires; Weimar Republic and the rise of National Socialism; the Third Reich. (4)

335 LATIN AMERICAN HISTORY

A survey of the major aspects of Latin American history from colonial to modern times. Spanish and Portuguese institutions, inter-American relations, and case studies of Mexico, Argentina, Brazil, and Cuba. (4)

340 MODERN JAPAN

Study of how Japan became the modern "miracle" in East Asia. Primary focus on traditions that enabled Japan to change rapidly, the role of the challenge of the West in that change, the industrialization of Japan, the reasons for war with the U.S., and the impact of the war on contemporary Japan and its social and economic institutions. (4)

341 SEVENTEENTH CENTURY FRANCE

Structure of society, development of absolutism, protest of popular classes, role of France in international affairs, origins of the Enlightenment. (2)

342 THE FRENCH REVOLUTION

Structure of society, origins and course of the Revolution, and its impact on France and Europe. (2)

352 THE AMERICAN REVOLUTION

The American Revolution as a series of essentially political events stretching from the Seven Years War in 1763 through Thomas Jefferson's defeat of John Adams in the Presidential election of 1800. The Colonists' initial resistance to the reorganization of the British Empire after 1763; the evolution of active resistance into revolution; the decision to declare independence; the experience of war; the struggle to establish legitimate and effective governments; the framing and ratification of the Constitution; and the Federalist-Republican battles of the 1790s. Emphasis on the role of political thought and ideology in the development of republican government in the United States. (4)

354 THE AMERICAN CIVIL WAR

The Civil War era from the political crises of the 1850s through Reconstruction. Antebellum sectionalism; the collapse of the 2nd American Party System; slavery; racism; secession; the military, political, and social aspects of the War itself; emancipation; and reconstruction. Emphasis on the Civil War as the central drama of U.S. history and consideration of its profound impact on 20th century social, political, and economic conditions. (4)

356 AMERICAN DIPLOMATIC HISTORY

The practice, function, and structure of American foreign policy with particular emphasis on the twentieth century. (4)

399 INTERNSHIP

A research and writing project in connection with a student's approved off-campus work or travel activity. Primary goal is to gain historical perspective on such activity, or a dimension of it. Prerequisite: sophomore standing plus one course in history, and consent of the department. (1-6)

401 WORKSHOPS

Workshops in special fields for varying periods of time. (1-4)

451 AMERICAN LEGAL HISTORY

Dimensions of American law as it relates to changing historical periods. (4)

460 WEST AND NORTHWEST

The American West in the 19th and 20th centuries. Frontier and regional perspectives. Interpretive, illustrative history, and opportunities for off-campus research. (4)

471 HISTORY OF AMERICAN THOUGHT AND CULTURE

Dimensions of American social and intellectual history. (4)

H

History



H

Division of Humanities

- 492 **INDEPENDENT STUDY** (1-4)
 494 **SEMINAR: AMERICAN HISTORY** (4)
 495 **SEMINAR: EUROPEAN HISTORY** (4)
 496 **SEMINAR: HISTORY AND HISTORIANS** (4)
 501 **GRADUATE WORKSHOPS**
 Graduate workshops in special fields or areas for varying periods of time. (1-4)

- 590 **GRADUATE SEMINAR**
 Selected topics as announced. Prerequisite: consent of the instructor. (1-4)
 591 **DIRECTED STUDY** (1-4)
 595 **GRADUATE READINGS**
 Independent Study Card Required. (4)
 598 **RESEARCH PROJECT** (4)
 599 **THESIS** (4)

Division of Humanities

The Division of Humanities, composed of the Departments of English, Languages, Philosophy, and Religion, offers a wide range of courses, both traditional and innovative. Members of the division are committed to excellent classroom instruction and to the research and service which support and draw on that instruction. As preparation for traditional majors, as a course to the professions, and as a means to finding and fulfilling the excellence in oneself, the humanities are as much the heart of a liberal education as they have ever been. Complementing this training in the language, literature, thought, and belief of the past is an increasingly visible involvement of the division with placing its students in internships and related work experiences such as the English Department's Publishing Careers Program. As one member of the division has written, the humanities "call us to become fully human and to act humanely, compassionately, creatively in an ever-changing society."

FACULTY

D.M. Martin, Divisional Dean; faculty members of the Departments of English, Languages, Philosophy, and Religion.

As a division within the College of Arts and Sciences, the Division of Humanities offers programs in each constituent department leading to the B.A. degree. Course offerings and degree requirements are listed under:

ENGLISH
 LANGUAGES
 PHILOSOPHY
 RELIGION



Integrated Studies Program

I

Integrated Studies Program

The Integrated Studies Program (Core II) is designed as an alternative mode of satisfying core curriculum requirements. Consisting of a constellation of interdisciplinary courses, the program explores a central theme—*The Dynamics of Change*—from a variety of academic perspectives. The program stresses critical thinking and writing. And it encourages the growth of camaraderie as students progress together through its sequences.

A brochure is available from the Admissions Office or the program coordinator in the Provost's Office.

FACULTY

Selected from Anthropology, Art, Biology, Chemistry, Communication Arts, Economics, English, History, Languages, Mathematics, Philosophy, Physics, Political Science, Psychology, Religion, and Sociology.

ISP Committee: Stivers, Chair; Benton, B. Dorner, Giddings, Huber, LeJeune, Nordquist.

ISP Coordinator: J. Carr.

REQUIREMENTS

1. SEQUENCE I: THE IDEA OF PROGRESS (2 courses, 111-112)
Normally taken in the freshman year.
 2. TWO OF FOUR 200-LEVEL SEQUENCES (2 courses each, 4 total)
 - SEQUENCE II (2 courses in the 220s):
 - 221: The Developing Individual
 - 222: The Burden of Human Responsibility
 - 223: The Emergence of Mind and Morality
 - 224: The Brain, Consciousness, and Transcendence
 - OR SEQUENCE III (2 courses in the 230s)
 - 231: Symbol, Language, and Myth
 - 232: Model and Metaphor
 - 233: Imaging the Self (Fall '84)
 - 234: Imaging the World (Spring '85)
 - OR SEQUENCE IV (2 courses in the 240s)
 - 241: Thrust for Technological Growth
 - 242: Limits to Technological Growth
 - 243: The Experience of War (Fall '84)
 - 244: Prospects for War and Peace (Spring '85)
 - OR SEQUENCE V (2 courses in the 250s)
 - 251: Technology and Computers (Fall '84)
 - 252: Computers and Models (Spring '85)
 3. CONCLUDING SEMINAR (1 course): 351
Taken after or along with the final 200-level course.
- TOTAL: SEVEN COURSES (28 hours)

POLICIES AND GUIDELINES FOR CORE II

1. Students may begin in any sequence, although Sequence I (the required sequence) is usually taken first.
2. Because the sequences are designed as consecutive, two-course series, students should begin in the first course (fall), if possible. However, the second course may be taken before the first with the consent of the instructors.
3. Sequences may be taken concurrently and in any order.
4. As the program evolves, alternatives are being added under each sequence (II:220s, III:230s, IV:240s, V:250s). Students should complete two courses that have been designed together (for example, 241-242 on "Technological Society" or 243-244 on "War and Peace"). If necessary, however, *any* two courses from the same sequence series *may* be used. For example, 242 and 243, though not designed together, may be taken to fulfill Sequence IV.
5. No more than two courses from any one sequence (II:220s, III:230s, IV:240s, V:250s) may be counted toward the seven-course Core II requirement. Additional courses from a sequence may be taken as electives.
6. Not every 200-level sequence will be offered each year; generally three will be available in any given year.
7. The seminar (351) is taken as the concluding course in the program, either after or concurrently with the last course of the student's third sequence.
8. Students entering Core II with appropriate previous coursework at the college level may have certain requirements waived. Students with certain combinations of Core I courses, for example, may have 111 or 112 waived. See the program coordinator for details.
9. All Core II courses (except the seminar) may be taken as electives by any student.
10. Most Core II courses may be taken to fulfill certain Core I requirements, as indicated in the course descriptions, subject to the approval of the faculty.
11. Students transferring from Core II to Core I may use their Core II courses to meet certain Core I requirements after consulting with the program coordinator.
12. The Integrated Studies Program is directed by a seven-person committee of faculty representing the academic areas participating in the program. The committee elects a chair and is supported by the program coordinator in the Provost's Office.

SEQUENCE I: THE IDEA OF PROGRESS (111-112)

A survey of Western culture from the Renaissance through the 19th century, emphasizing the interaction of religious, philosophical, and political beliefs with the emergence of new arts and sciences.

111 NATURE AND SUPERNATURE

A study of the emergence of modern science, the development of democratic political ideas, the renewal of the arts, and the reformulations of religious belief in the Renaissance, Reformation, and Enlightenment. The ideas and accomplishments of Luther, Galileo, Newton, Locke, and Hume are given special emphasis, together with developments in literature, the visual arts, and politics. Meets Core I requirements in philosophy or in religious studies (lines 2 or 3). I (4)

112 FROM FINITE TO INFINITE

Developments in literature and science, politics and industrialization in the 18th and 19th centuries. Emphasis is given to the influence of the Enlightenment, the American and French revolutions, the Romantic movement, the impact of Darwinism and Marxism. Prerequisite: 111 or permission. Meets Core I requirements in literature or in social sciences (line 1). II (4)



I

SEQUENCE II (Courses numbered in the 220s)**HUMAN RESPONSIBILITY (221-222)**

A study of the various factors—biological, psychological, social, historical—that influence the development of individuals and create the need for responsible human attitudes and actions.

221 THE DEVELOPING INDIVIDUAL

The growth of identity and conscience are studied from biological, philosophical, and sociological points of view, with emphasis on stages of development from dogmatism to responsible choice. Particular attention is given to contemporary moral issues such as abortion, sex roles, and criminal behavior, and to the ethical and social questions they raise. Meets Core I requirements in philosophy or in social sciences (line 2). I (4)

222 THE BURDEN OF HUMAN RESPONSIBILITY: 20th CENTURY EUROPE

A study of European culture from the rapid industrialization of the 1880s to the dilemmas presented by National Socialism and World War II. The course includes study of political ideas from the revolutionary Marxism of Lenin and Stalin to the fascism of Hitler, as well as an exploration of the iconoclastic art and literature of the period. Moral issues of the two wars are emphasized, including patriotism, collaboration and resistance, dictatorship and bureaucratic responsibility. Meets Core I requirements in literature or in social sciences (line 1). Prerequisite: 221 or permission. (4)

MIND AND BRAIN (223-224)

This sequence explores how specifically human qualities—including morality, a sense of self, and the capacity for religious experience and belief—are rooted in our biology and to what extent we can transcend that physical heritage.

223 THE EMERGENCE OF MIND AND MORALITY

A survey of genetics and evolution, with emphasis on the brain and the emergence of social behavior in animals, prepares for a critical study of the claims of sociobiology that human culture and morality can be explained in terms of our biological origins. Meets Core I requirements in natural sciences (line 2) or philosophy. (4)

224 THE BRAIN, CONSCIOUSNESS, AND TRANSCENDENCE

A study of the brain as the center of perception, emotion, consciousness, and knowledge. Includes a study of the brain's functions, an investigation of spiritual, mystical, and other self-transcending experiences, and an exploration of the relationship between mind and brain, materialistic and non-materialistic explanations, and the nature of person commitment. Prerequisite: 223 or permission. Meets Core I requirements in social sciences (line 2) or philosophy. (4)

SEQUENCE III (Courses numbered in the 230s)
WORD AND WORLD (231-232)

An exploration of human creativity and of how words and other symbols are used to create and maintain various imaginative worlds in religion, literature, science, mathematics, and the arts.

231 SYMBOL, LANGUAGE, AND MYTH

A study of human beings as symbol-makers who give coherence and meaning to their world through imaginative systems of art and science. Special attention is given to the basic myths of the West and the East, and to the nature of "language" as the symbol system that evokes and limits understanding. Various mathematical systems, from Euclid to contemporary statistics, are studied to see how they shape our sense of the concrete world and enable us to deal with it in science and technology. In combination with 232, meets Core I requirements in literature and natural sciences (lines 1 or 3). (4)

232 MODEL AND METAPHOR

A consideration of how new ways of thinking emerge as one paradigm or model replaces another in science, literature, art, and other areas of human concern. The world-views of contemporary science are contrasted with the mechanical models of old common sense, with emphasis on indeterminacy and probability. Autobiographies are read and written to see how words help shape our sense of individuality. In combination with 231, meets Core I requirements in literature and natural sciences (lines 1 or 3). Prerequisite: 231 or permission. (4)

IMAGING SELF AND WORLD (233-234)

This sequence explores how we come to know and partially create various kinds of self and world through the images of ordinary life and through their elaboration in the symbols of the arts and sciences.

233 IMAGING THE SELF

A series of exercises in the visual and literary arts that reveal how the self is discovered and constructed in our daily world through many kinds of images, including dreams, costumes, songs, childhood memories, houses, church services, dances, television, poetry, sketching, and constructing models. The emphasis is on doing or making, followed by reflective analysis. Meets Core I requirements in art or literature. (4) (Fall '84)

234 IMAGING THE WORLD

An exploration of how humans perceive, interpret, and shape their own worlds. Following an introduction to symbols, symbol systems, and the creation of meaning, the construction of world images in science and theology through myth, model, and paradigm are studied. The model of symbolic logic is built to organize language and thought. Science is then considered as a process of the application of logic to empirically gathered data. Views of a variety of scientists and philosophers on the way science is done and the way scientists come to know are considered. Theological language, experience, and use of myth and parable in theological models are examined. Finally, some images of the world through the eyes of poets are compared to these scientific and theological representations. Meets Core I requirements in natural sciences (lines 1 or 3) or religious studies (line 3). (4) (Spring '85)

SEQUENCE IV (Courses numbered in the 240s)**LIMITS TO GROWTH (241-242)**

A study of the origins and probable consequences of the drive for modernization based on technological and economic growth, including its ethical, aesthetic, and religious implications.

241 THE TECHNOLOGICAL SOCIETY: THRUST FOR GROWTH

An analysis of the impact of technology on modern society and of the emergent concept of secularism is developed in an effort to understand contemporary culture. Problems of the interface of technology with culture are examined from philosophical, religious, biological, and economic points of view. Meets Core I requirements in religious studies (lines 2 or 3) or social sciences (line 2). (4)

242 THE TECHNOLOGICAL SOCIETY: LIMITS TO GROWTH

An exploration of creative futures beyond a technological society. Emphasis is given to a study of the limits to growth in connection with population, food production, energy, pollution, and material resources. The moral choices involved in alternative futures are examined together with aesthetic values and their implications for future social order. Meets Core I requirements in natural sciences (lines 1, 2, or 3) if taken in combination with 111-112 and 221. Prerequisite: 241 or permission. (4)

WAR AND PEACE (243-244)

This sequence explores the complexity of war and the difficulties of achieving and maintaining a just peace. It considers the fact of some important wars in our century, investigates the deeper causes of war, and raises the issues of personal and social ethics during a war and in a society that prepares for war in a time of peace. When taken as a whole, this two-course sequence meets the Core I requirement in social sciences (line 1) and either philosophy or religious studies (lines 2 or 3).

243 THE EXPERIENCE OF WAR

Essential background is established by studying the complex history of several major wars of our time (e.g., World War II, the Vietnam War, the conflict in the Middle East). Emphasis is placed on the personal experience of war, both as soldier and as civilian, through interviews, films, and literature. The ethical decisions individuals must make in war-time are considered as well as the pressures of our biological heritage and our idealistic causes. (4) (Fall '84)

244 PROSPECTS FOR WAR AND PEACE

A study of the institutions and situations (political, economic, religious, psychological, historical) that keep the modern world on the brink of war and make a stable, just peace so elusive. Consideration is given to pacifism and the "just war" tradition, as well as to the technology and politics of nuclear war and its balance of terror. Students complete an independent project on topics such as the draft, the economics of a military state, arms control, the competitions for resources, anti-colonialism and Marxism. Prerequisite: 243 or permission. (4) (Spring '85)



**SEQUENCE V (Courses numbered in the 250s)
TECHNOLOGY, COMPUTERS, AND SOCIAL
CHANGE (251-252)**

A study of modern technology, its historical context, its machines, and its consequences. The computer, as one in a long line of technologies, is the special focus. When taken as a whole, this two-course sequence meets the Core I requirement in natural sciences (line 3) or social sciences (line 1).

251 TECHNOLOGY AND COMPUTERS

Modern technology is the product of sweeping changes in Western civilization. The computer must be seen within the context of these changes. Thus the shift from traditional to technological society, the convergence of forces which produced the shift, and the consequences of the shift on institutions, ideas, and values will be the object of study. Once this context is established, students will study the computer, its creation and uses, what it is, and what it can and cannot do. (4)(Fall '84)

252 COMPUTERS AND MODELS

The modeling of social processes and the programming of models for the computer are two important tools used by planners in education, business, and government. The use of models and computers necessitates the making of assumptions and the reduction of reality. Two or three illustrative models will be developed to demonstrate the skills of modeling and programming and to assess advantages and limitations. Simultaneously, students will study the implications of using models and computers and the ethical and philosophic issues which emerge from their use. Returning to the larger context of technology, students will address the questions of technology, "out of control," artificial intelligence, the impacts of modern technology on the Third World, and the future. A student project will conclude the sequence. (4)(Spring '85)

CONCLUDING SEMINAR

351 INTEGRATED STUDIES SEMINAR

A recapitulation and integration of themes from the previous sequences, with additional readings and discussion. Students investigate an individual topic from an interdisciplinary perspective, make a formal oral presentation, and complete a substantial paper. Prerequisite: 111-112 and two additional sequences. May be taken concurrently with the last course of the final sequence. II (4)

Languages

Learning a foreign language is fundamental to the liberal arts. When students begin to communicate with other peoples, they discover their own language, and in the study of foreign literature and cultural history they gain understanding of our own cultural achievements.

In today's international setting, foreign language skills can be an important career asset in fields such as business, government service, journalism, law and medicine. They can expand professional opportunities and mobility within a profession.

The department offers courses in language, literature, and cultural history. It also cooperates with a number of universities outside the United States to allow students the opportunity to study abroad. Language students may also earn credit in the International Cooperative Education Program, which places students in summer jobs in several European countries.

The department offers instruction for beginning, intermediate, and advanced students. Those who have already studied a language elsewhere may qualify for placement into intermediate or advanced courses. To help students find the proper level, they are encouraged to take the language placement examination just before the beginning of the fall semester and to consult with a departmental adviser. Students who receive advanced placement may also receive credit toward a major or minor for coursework completed elsewhere.

Majors are available in Classics, French, German, Norwegian, Scandinavian Studies, and Spanish. Minors are offered in French, German, Greek, Latin, Norwegian, and Spanish.

FACULTY

Toven, Chair; R. Brown, Chong, DeSherlia, Faye, Gilmour, McKim, Predmore, Rasmussen, Sneec, Spangler, R. Swenson, Webster.

There are no departmental prerequisites for the study of foreign languages. Potential majors are, however, encouraged to obtain as much high school preparation as possible. Students with previous experience may qualify for placement into intermediate or advanced courses. To determine the appropriate level students are encouraged to take the language placement examination at the beginning of the fall semester or to consult with a departmental adviser. Those qualifying for advanced placement may also receive credit toward the major for work completed in high school, thus enabling them to pursue a second major.

Major and minor programs are available in Classics, French, German, Norwegian, and Spanish. Departmental courses are a primary component in the interdisciplinary majors offered in Classics and Scandinavian Area Studies. Minors are also offered in Greek and Latin.

BACHELOR OF ARTS: Major in French, German or Spanish—Minimum of 32 semester hours beyond 101-102, including 201, 202, 321, 351, 352, plus at least 4 semester hours of literature. Spanish 322 may be substituted for Spanish 321. Major in Norwegian—Minimum of 32 semester hours, including 101, 102, 201, 202, 351, 352, and at least one of the 400-level literature courses from Scandinavian Studies.

Major in Classics—40 semester hours, including 8 semester hours each of Greek and Latin and an additional 8 hours of either Greek or Latin. Remaining courses are selected in consultation with the classics coordinator. **Major in Scandinavian Area Studies**—40 semester hours. A flexible cross-disciplinary approach to the study of Scandinavia. See the section of this catalog on Scandinavian Area Studies.

MINOR PROGRAMS: Courses are chosen in consultation with a departmental adviser. At least 8 semester hours must be taken in residence. Minor in French, German, or Spanish: 20 semester hours, excluding 101-102. Minor will include 201, 202, 351, and two other upper-division courses. Minor in Greek, Latin, or Norwegian: 20 semester hours, which may include 101-102.

BACHELOR OF ARTS IN EDUCATION: Students enrolled in the program are required to take 445. For further details, see School of Education.

L
Languages



COURSE OFFERINGS

L

Languages

101 SIGN LANGUAGE

An introduction to the structure of American Sign Language and to the world of the hearing-impaired. Basic signing skills and sign language vocabulary; fingerspelling; the particular needs and problems of deaf people. Material presented through demonstrations, drills, mime, recitals, lectures, and discussions. I (4)

200 STRUCTURAL LINGUISTICS

The study of the nature of language; principles and techniques of descriptive language analysis; elementary application of linguistic analysis to selected materials. No prerequisites. (4)

271 LITERATURE AND SOCIETY IN MODERN EUROPE

Reading and discussion of works in English translation by authors like Flaubert, Ibsen, and Th. Mann, who exemplify Realism and Naturalism in various European literatures. Emphasis on social themes, including life in industrial society, the changing status of women, and class conflict. Instructor assisted by other faculty members specializing in the various national literatures. No prerequisite. Satisfies the general university core requirement in literature. (4)

445 METHODOLOGY OF TEACHING FOREIGN LANGUAGES

Theory and techniques of foreign language teaching; special problems in the student's major language; emphasis on audio-lingual techniques. (2)

491,492 INDEPENDENT STUDY (1-4)

507, 598 GRADUATE RESEARCH (2-4)

CLASSICS

The Classics Program is a cooperative effort among the Departments of Languages, History, Philosophy, Religion, and Art. Its goal is to unite the "heart of the liberal arts" with the mind, through history and philosophy, and the soul, through religion, and to embellish this trinity of themes with the visual experience of art.

This interdepartmental major requires the completion of 10 courses, including at least one year of one of the classical languages and two of the other (Greek and Latin). The remaining courses are selected from the list below in consultation with the program coordinator.

Latin 101-102-Elementary
 Latin 201-202-Intermediate
 Greek 101-102-Elementary
 Greek 201-202-Intermediate
 Greek 421-422-Masterpieces of Greek Literature
 Art 110-Introduction to Art
 Art 180-Traditions of Western Art
 Art 386-Imagery and Symbolism
 English 321-Masterpieces of European Literature
 History 321-Classical Civilization
 Philosophy 331-Ancient Philosophy
 Religion 241-Biblical Literature
 Religion 341-Old Testament Studies
 Religion 342-New Testament Studies
 Religion 371-Ancient Church History
 Independent Study Courses
 Selected Interim Courses

Students are expected to become familiar with the reading list for that part of the program (art, literature, history, philosophy, or religion) in which their interest lies.

The program is designed to be flexible. In consultation with the Classics Committee, a student may elect a course or courses not on the classics course list.

FRENCH

101, 102 ELEMENTARY FRENCH

Essentials of pronunciation, intonation, and structure; basic skills in listening, speaking, reading, and writing. Laboratory attendance required. I II (4, 4)

201, 202 INTERMEDIATE FRENCH

Review of basic grammar; development of vocabulary and emphasis on spontaneous, oral expression. Reading selections which reflect France's cultural heritage and society. Laboratory attendance required. I, II (4, 4)

321 CIVILIZATION AND CULTURE

Present-day France as reflected in current literature, periodicals, television and films, written compositions and oral reports; conducted in French. Prerequisite: 202. (4)

351, 352 COMPOSITION AND CONVERSATION

Advanced grammar, stylistics, composition, and conversation on current topics; conducted in French. Prerequisite: 202. III (4, 4)

421, 422 MASTERPIECES OF FRENCH LITERATURE

Authors representative of major periods from the Middle Ages through the nineteenth century; the style and structure and the moral and artistic intentions of such authors as Rabelais, Montaigne, Moliere, Corneille, Pascal, Voltaire, Rousseau, Hugo, and Baudelaire. Prerequisite: 202. III a/y (4, 4)

431, 432 TWENTIETH CENTURY FRENCH LITERATURE

Selected twentieth century writers from France and other francophone countries. May include Gide, Camus, Sartre, Beckett, Aimee Cesaire, and Anne Hebert. Prerequisite: 202. II a/y (4, 4)

442 HISTORY OF ROMANCE LANGUAGES

Historical development of Romance languages with reference to current languages; same as Spanish 442. II a/y (4)

491, 492 INDEPENDENT STUDY (2-4)

GERMAN

101, 102 ELEMENTARY GERMAN

Introduction to the German language. Basic skills of oral and written communication in classroom and laboratory practice. Use of materials reflecting contemporary German life. Meets five hours weekly. III (4, 4)

201, 202 INTERMEDIATE GERMAN

Continued practice in oral and written communication in classroom and laboratory. Use of materials which reflect contemporary life as well as the German cultural heritage. Meets four hours weekly. III (4, 4)

321 GERMAN CIVILIZATION

German cultural and linguistic history from the 17th century to the present. Aesthetic and historical consideration of representative works from the Enlightenment, the Age of Goethe, the 19th and 20th centuries. Prerequisite: 202 or equivalent. II a/y (4)

351, 352 COMPOSITION AND CONVERSATION

Intensive review of grammar with emphasis on idiomatic usage; use of contemporary authors as models of style. Conversation on topics of student interest. Conducted in German. Prerequisite: 202 or equivalent. III (4, 4)

421 GERMAN LITERATURE: THE AGE OF GOETHE

Representative works from the Enlightenment to Goethe's death, circa 1750-1832, including Storm and Stress, Classicism and Romanticism. Prerequisite: 202 or equivalent. I a/y (4)

422 GERMAN LITERATURE: THE NINETEENTH CENTURY

Representative works from the various literary movements of the nineteenth century, 1820-1890, including Biedermeier, Young Germany, and Realism. Prerequisite: 202 or equivalent. II a/y (4)

431 GERMAN LITERATURE: THE TWENTIETH CENTURY

Representative works of German literature from Naturalism to Expressionism, 1890-1925. Prerequisite: 202 or equivalent. I a/y (4)



432 CONTEMPORARY GERMAN LITERATURE

Representative works from 1925 to the present; authors from East and West Germany, Austria, and Switzerland. Prerequisite: 202 or equivalent. II a/y (4)

442 HISTORY OF THE GERMAN LANGUAGE
Historical development of German with reference to contemporary language; conducted in German. Prerequisite: 202. II a/y (4)

491, 492 INDEPENDENT STUDY (2-4)

GREEK

101, 102 ELEMENTARY GREEK
Basic skills in reading classical, *koine*, and patristic Greek. I II (4, 4)

201, 202 INTERMEDIATE GREEK
Review of basic grammar; reading in selected classical and New Testament authors. I II (4, 4)

421, 422 MASTERPIECES OF GREEK LITERATURE
Available through consultation with the department. Prerequisites: 101, 102, 201. I II (4, 4)

491, 492 INDEPENDENT STUDY (2-4)

LATIN

101, 102 ELEMENTARY LATIN
Basic skills in reading Latin; an introduction to Roman literature and culture. I II (4, 4)

201, 202 INTERMEDIATE LATIN
Review of basic grammar; selected readings from Latin authors. I II (4, 4)

491, 492 INDEPENDENT STUDY (2-4)

NORWEGIAN

101, 102 ELEMENTARY NORWEGIAN
Introduces the students to the pleasure of speaking, reading, and writing a foreign language. These skills are developed through a conversational approach, using songs and other cultural materials, as well as audio-visual media. I II (4, 4)

201, 202 INTERMEDIATE NORWEGIAN
Develops the students' command of the language while further acquainting them with the Norwegian cultural heritage. Reading selections introduce the students to Norwegian folklore and daily life. I II (4, 4)

351 CONVERSATION AND COMPOSITION
Develops the students' ability to express themselves well in the language, orally and in writing. Selected contemporary materials will be used as models of style and usage. Prerequisite: 202 or equivalent. (4)

352 ADVANCED CONVERSATION AND COMPOSITION
Develops the students' command of the language by emphasizing the finer points of structure, style, and good taste. Prerequisite: 351 or equivalent. (4)

491, 492 INDEPENDENT STUDY (2-4)

SCANDINAVIAN

250 LITERARY MASTERPIECES OF SCANDINAVIA: THE SAGAS TO UNDSSET

A survey of major authors and works from the Scandinavian countries, beginning with the prose and poetry of the Viking Age and spanning the contributions of Holberg, Andersen, Lagerlöf, Hamsun, Undset, and others. All readings in English translation. Fulfills core requirement in literature. (4)

321 VIKINGS AND EMIGRANTS
Highlights of Scandinavian history, from the beginning to the present. Emphasis on periods and ways in which Scandinavia has contributed to world history. Readings in the original for majors; class conducted in English. a/y (4)

322 CONTEMPORARY SCANDINAVIA
Neutrality and occupation; the emergence of the welfare state; social reforms, planned economies, and cultural policies; Scandinavia and the European community. Readings in the original for majors; class conducted in English. a/y (4)

421 IBSEN, STRINDBERG, AND THEIR CONTEMPORARIES
The great writers of nineteenth century Scandinavian literature—Henrik Ibsen and August Strindberg—are studied against the backdrop of their time and the work of other authors who contributed to the breakthrough of modern forms and themes. Class conducted in English; readings in translation for non-majors. Fulfills core requirement in literature. a/y (4)

422 TWENTIETH CENTURY SCANDINAVIAN LITERATURE
Recent trends in Scandinavian literature are illustrated by leading writers like Vesaas, Lagerkvist, Dinesen, Borgen, Riffberg, and Tikkanen. Class conducted in English; readings in translation for non-majors. Fulfills core requirement in literature. a/y (4)

491, 492 INDEPENDENT STUDY (1-4)

SPANISH

101, 102 ELEMENTARY SPANISH
Essentials of pronunciation, intonation, and structure; basic skills in listening, speaking, reading, and writing. Laboratory attendance required. I II (4, 4)

201, 202 INTERMEDIATE SPANISH
A continuation of elementary Spanish; reading selections which reflect the Hispanic cultural heritage as well as contemporary materials. Laboratory attendance required. I II (4, 4)

321 CIVILIZATION AND CULTURE
Historic and artistic elements which have shaped Spanish thought and behavior from the beginnings to the present; conducted in Spanish. Prerequisite: 202. I (4)

322 LATIN AMERICAN CIVILIZATION AND CULTURE
Historic, artistic, literary, sociological, and geographic elements shaping the development of the Spanish-speaking New World. Both Hispanic and non-Hispanic elements will be studied. Prerequisite: 202 or four years of high school Spanish. II (4)

351, 352 COMPOSITION AND CONVERSATION
Topics of current interest as a basis for improved oral and written expression; conducted in Spanish. Prerequisite: 202. I II (4, 4)

421, 422 MASTERPIECES OF HISPANIC LITERATURE
All genres of major literary works from the *Poema del Cid*, to 1898; forces which produced the literature; appreciation of literature as a work of art. Prerequisite: 202. I II a/y (4, 4)

431, 432 TWENTIETH CENTURY HISPANIC LITERATURE
The first semester deals with the literature of Spain from the "Generacion de '98" to the present. The second semester deals with the literature of Spanish America from the modernista movement (1888) to the present. Emphasis on period will vary. (4, 4)

442 HISTORY OF ROMANCE LANGUAGES
Historical development of Romance languages with reference to current languages; same as French 442. II a/y (4)

491, 492 INDEPENDENT STUDY (2-4)



L Legal Studies Program

Legal Studies Program

Legal Studies is an interdisciplinary degree program focusing on the nature of law and judicial processes. Consistent with the purposes of the American Legal Studies Association, the Legal Studies Program at PLU provides alternative approaches to the study of law from the academic framework of the social sciences, the humanities, business, and education. The program emphasizes the development of a critical understanding of the functions of law, the mutual impacts of law and society, and the sources of law. Students in Legal Studies pursue these goals through courses, directed research, and internships in offices and agencies involved in litigation and legal processes.

FACULTY

Atkinson, *Director*; Bermingham, Brue, DeBower, Farmer, Jobst, Lauer, P. Menzel, and Ulbricht.

BACHELOR OF ARTS MAJOR: 32 semester hours.

- Required courses* (12 hours):
Introduction to Legal Studies (POLS 170)
Judicial Process (POLS 371)
Legal Studies Research (POLS 374)
- General electives* (8 hours): Two courses from the following:
American Legal History (HIST 451)
Comparative Legal Systems (POLS 381)
Philosophy of Law (PHIL 328)
Law, Conflict, and Social Change (SOC 456)
- Special electives* (12 hours): Three courses from the following (also, courses in group 2 not taken to fulfill general elective requirements may be used to fulfill special elective requirements in group 3):
Business Law (BA 435)
Civil Liberties (POLS 373)
Constitutional Law (POLS 372)
Court Administration (POLS 571)
Educational Law (EDUC 551)
Industrial Organization and Public Policy (ECON 371)
International Organization and Law (POLS 336)
Internship in Legal Studies (POLS 471)
Law and Society (BA 230)
Law and the Human Services (SOCW 458)

MINOR: 20 semester hours, including Political Science 170 and four additional courses selected in consultation with the program director.

Mathematics

Mathematics is a many-faceted subject that is extremely useful in its application, but at the same time is fascinating and beautiful in the abstract. It is an indispensable tool for industry, science, government, and the business world, while the elegance of its logic and beauty of form have intrigued scholars, philosophers, and artists since earliest times.

The mathematics program at Pacific Lutheran University is designed to serve five main objectives: (1) To provide backgrounds for other disciplines, (2) to provide a comprehensive pre-professional program for those directly entering the fields of teaching and applied mathematics, (3) to provide a nucleus of essential courses which will develop the breadth and maturity of mathematical thought for continued study of mathematics at the graduate level, (4) to develop the mental skills necessary for the creation, analysis, and critique of mathematical logic within the context of mathematical topics, and (5) to provide a view of mathematics as a part of humanistic behavior.

The Department of Mathematics and Computer Science offers majors in both mathematics and computer science as well as minors in mathematics, computer science, information science, and statistics. Many of the faculty teach both mathematics and computer science.

FACULTY: Mathematics and Computer Science

Edison, *Chair*; Bandy, Batker, Brink, Dollinger, B. Dornier, C. Dornier, Fatland, Glaser, J. Herzog, M. Herzog, McBride, N. C. Meyer, C. L. Nelson, G. Peterson, Spillman, Welsh, Yiu.



BEGINNING CLASSES

Majors in mathematics, computer science, and other sciences usually take Math 151 and 152 (calculus). Those who have had calculus in high school may omit Math 151 and enroll in 152 after consultation with a member of the departmental faculty. Those who have less mathematics background may enroll in Math 133 (algebra/trigonometry) or Math 112 before taking 151. A placement test is given in class the first day of Math 151 to determine readiness for calculus.

Business majors usually take Math 128. Those wishing a stronger mathematics background should take Math 151 and Math 230 or 331 in place of Math 128.

Others choose from Math 115, 128, 133, or 151 or Computer Science 110-210 or I44 or an interim class depending on their interests and levels of preparation.

Remedial: Math 101 (Intermediate Algebra) is available for those who are not ready for other classes.

MATHEMATICS MAJOR

The foundation of the mathematics program for majors is the four semester calculus and linear algebra sequence, Math 151, 152, 253, and 331. These courses are usually taken in sequence the first four semesters. Students with a calculus background in high school may receive advanced placement into the appropriate course in the sequence. Upper division work includes courses in modern algebra, analysis, statistics, applied mathematics, and topology.

Students majoring in mathematics are encouraged to complete work in computer science. Since many careers involve applying mathematics to other areas, it is a good idea to pick one or more subjects outside mathematics for additional study (perhaps leading to a minor). While many subjects are appropriate, some of the more common ones are economics, business, physics, engineering, chemistry, and biology.

A typical major program in mathematics is as follows:

Freshman year:	Math 151, 152 Computer Science 144
Sophomore year:	Math 253, 331 Physics 153, 154 (if not taken earlier)
Junior & Senior years:	Math 433, 434, 455, 456, 486 and other electives from mathematics and computer science.

BACHELOR OF ARTS MAJOR: Minimum of 28 semester hours in mathematics courses numbered above 150, including 331, 433, 455, 486, and either 434 or 456. The choice between 434 or 456 may be replaced by taking 8 semester hours from 321, 341, 345-346, 351, and 460. Required supporting: Computer Science 144, which should be taken in the freshman year. 8 semester hours in physics are strongly recommended. Students planning to do graduate work in mathematics should complete both 434 and 456.

BACHELOR OF SCIENCE MAJOR: 40 semester hours, including 331 and 486 and at least 20 semester hours of upper division mathematics courses. 12 hours of the upper division requirements must come from 433, 434, 455, and 456. Required supporting: Computer Science I44, which should be taken in the freshman year; 8 semester hours in physics. Physics 356 or Computer Science 348 may be substituted for one course of upper division mathematics.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

MINOR IN MATHEMATICS: 20 semester hours of mathematics courses, including 151, 152, 253, and 8 hours of upper division mathematics courses. Strongly recommended: Computer Science 144 or 110. Interim courses and 323, 324, and 446 may not be counted toward the mathematics minor.

MINOR IN STATISTICS: See Statistics section of this catalog.

COURSE OFFERINGS

A grade of C or higher is strongly recommended in all prerequisite courses.

101 INTERMEDIATE ALGEBRA

A thorough review of first year high school algebra and material beyond quadratics. Does not count toward university core requirements. I II (2)

112 PLANE TRIGONOMETRY

Radian measure, trigonometric and inverse trigonometric functions, identities, graphing, solution of triangles, and other topics such as complex numbers. Prerequisite: two years of high school algebra. Students with only one year of high school algebra should take 133. I II (2)

115 INTRODUCTION TO THE WORLD OF MATHEMATICS AND COMPUTERS (CSCI 115)

A study of mathematics and computers in the modern world with a wide variety of applications and a historical perspective. The relationship between mathematics and computers. Elementary computer programming in BASIC. Intended for non-majors with no previous experience with computers. Meets Core I requirement in natural sciences and mathematics (line 3). Prerequisite: high school algebra. (4)

128 MATHEMATICS FOR BUSINESS AND THE BEHAVIORAL SCIENCES

Review of algebra, matrix theory and linear programming, introduction to differential and integral calculus. Concepts are developed intuitively with applications. The use of mathematical tools is stressed throughout the course. Prerequisite: two years of high school algebra or 101 or consent of instructor. I II (4)

133 COLLEGE ALGEBRA AND TRIGONOMETRY

Solving equations, functions, exponentials, logarithms, radian measure, trigonometric identities, graphing, and other topics such as complex numbers. Prerequisite: two years of high school algebra or 101 or consent. I II (4)

151 ANALYTIC GEOMETRY AND CALCULUS

Analytic geometry, functions, limits, derivatives and integrals with applications. Prerequisite: two years of high school algebra and trigonometry (or concurrent registration in 112) or 133 or equivalent. I II (4)

152 ANALYTIC GEOMETRY AND CALCULUS

Integrations, applications, and techniques of integration, transcendental functions, polar coordinates, improper integrals, L'Hospital's Rule, infinite series, matrices, application of computer to these and related topics. Prerequisite: 151. I II (4)

199 DIRECTED READING

Supervised study of topics selected to meet the individual's needs or interests; primarily for students awarded advanced placement. Admission only by departmental invitation. (1-2)

230 MATRIX ALGEBRA

A survey of matrix algebra and determinants with applications, such as linear programming. A first look at abstract methods including some techniques of proof. Prerequisite: 151. (2)

253 MULTIVARIABLE CALCULUS AND DIFFERENTIAL EQUATIONS

An introduction to vectors, multidimensional calculus, and differential equations. Emphasis on using these topics as tools for solving physical problems. Prerequisite: 152. I II (4)

321 GEOMETRY

Foundations of geometry and basic theory in Euclidean, projective, and non-Euclidean geometry. Prerequisite: 152 or consent. a/y I 1984-85 (4)

323 MODERN ELEMENTARY MATHEMATICS

Concepts underlying traditional computational techniques; a systematic analysis of arithmetic; an intuitive approach to algebra and geometry. Intended for elementary teaching majors. Prerequisite to EDUC 326. Prerequisite: consent of instructor. I II (4)

324 ALGEBRA AND GEOMETRY FOR THE ELEMENTARY SCHOOL TEACHER

Properties of real numbers, linear and quadratic equations and inequalities, complex numbers, polynomials, algebraic structures, functions; a study of informal geometry from a mature viewpoint using modern vocabulary and notation. Geometry topics include congruence, similarity, symmetry, properties of geometry figures such as quadrilaterals and circles, and relationships among geometrical figures. Prerequisite: 323 or by placement exam. (4)

331 LINEAR ALGEBRA

Vectors and vector spaces, matrices, quadratic forms, linear transformations. Prerequisite: 152. I II (4)



M

Mathematics

334 ANALYSIS OF VARIANCE AND EXPERIMENTAL DESIGN

Random sampling, factors which destroy experimental design, one-way analysis of variance, two-way analysis of variance, factored design, block and latin square design. Students will also critique published experiments and perform an experimental design project. Prerequisite: STAT 231 or equivalent. II (2)

335 DISCRETE STRUCTURES

A first course in the abstract structures and methods of computer science. The logical structure of sets, relations, functions, combinatorics, graph theory, Boolean algebras, switching theory, groups and coding theory will be surveyed through problems and theorems whose solutions and proofs clarify logical relationships. Prerequisites: 152 and either 230 or 331. (4)

341 MATHEMATICAL STATISTICS

Probability theory, discrete and continuous distribution functions, moment generating functions, sampling distributions and hypothesis-testing, introduction to regression, correlation, and analysis of variance. Prerequisite: 152. II (4)

345 INTRODUCTION TO NUMERICAL ANALYSIS

Numerical theory and applications in the areas of solutions of equations, linear systems, interpolation, and approximation. Prerequisite: 152 and (144 or 110) or consent of instructor. I (taught during first half of semester) (2)

346 NUMERICAL ANALYSIS

Continuation of 345, including numerical theory and applications in the areas of matrix theory, numerical differentiation and integration, and solution of differential equations. Prerequisites: 253 and 345 or consent of instructor. I a/y 1985-86 (taught during second half of semester) (2)

351 DIFFERENTIAL EQUATIONS

An introduction to differential equations emphasizing the applied aspect. First and second order differential equations, boundary-value and eigenvalue problems, power series solutions, nonlinear differential equations, numerical methods, the Laplace transformation. Prerequisite: 253. II a/y 1984-85 (4)

433, 434 ABSTRACT ALGEBRA

Topics from groups, rings, modules, fields, field extensions, and linear algebra. Prerequisites: for 433, 335 or 331; for 434, 331 and 433. a/y II 1985-86 (4, 4)

446 MATHEMATICS IN THE SECONDARY SCHOOL

Methods and materials in secondary school math teaching. Basic mathematical concepts; principles of number operation, relation, proof, and problem solving in the context of arithmetic, algebra, and geometry. Prerequisite: 253 or 331 or equivalent. I (2)

455, 456 MATHEMATICAL ANALYSIS

Extended treatment of topics introduced in elementary calculus. Prerequisite: 253 and 331. 455 offered I each year; 456 offered II a/y 1984-85 (4)

460 ELEMENTARY TOPOLOGY

An introduction to point-set topology. Prerequisite: consent of instructor. II a/y 1985-86 (4)

486 SENIOR SEMINAR

Presentation by students of knowledge gained in research under the direction of an assigned professor. Required of all senior math majors seeking a B.A. or B.S. degree. Prerequisite: senior math major or consent of department chair. I,II (1)

490 SEMINAR

Prerequisite: consent of department chair. (1-4)

491, 492 INDEPENDENT STUDY

Prerequisite: consent of department chair. I II (1-4)

597, 598 GRADUATE RESEARCH

Open to master's degree candidates only. Prerequisite: consent of department chair. III (1-4)

Music

The study of music is, in these times of stress and rapid change, a type of investment that can provide enduring satisfaction.

The staff and facilities of Pacific Lutheran University are such that students may pursue studies in many branches of music leading to academic degrees as well as lifelong enjoyment. Degree programs include the Bachelor of Arts, the Bachelor of Music, and the Master of Music, which is offered with concentration in either conducting, composition, education, or performance. The Bachelor of Arts in Education with a major in music is offered for those intending to become teachers in the public schools.

Both the undergraduate and graduate programs are accredited regionally and nationally. Pacific Lutheran University is an associate member of the National Association of Schools of Music.

PLU music graduates find places for themselves as teachers of music in public and private schools and colleges, and as conductors, composers, private teachers, and classroom teachers. A considerable number contribute greatly to church worship as organists, choir directors, or full-time ministers. Some have found satisfying careers in music mer-

chandising, others in concert management. Still others, with emphasis on performance, are in opera and on the concert stage, as well as in popular entertainment, vocally and instrumentally.

Facilities include space and instruments for individual practice and recital. Private study in keyboard is available in piano, organ, and harpsichord. Other private study includes voice and all string, wind, and percussion instruments, taught by regularly performing musicians. Professional-quality experience is available to qualified performers in band, orchestra, choir, jazz, and chamber ensembles.

Exposure to musical literature is to be gained not only through intensive course work in history and literature, but also in attendance at the large number of concerts annually presented by the performing organizations as well as by students, faculty, and guest artists in recital.

It must be emphasized that music majors form but a part of the multi-faceted program of music at PLU. All students are eligible to audition for the performing organizations and constitute perhaps half of the membership. Introductory music courses during both the regular semesters and the interim are designed for exploration and self-fulfillment.



FACULTY

Robbins, *Chair*; Dahl, K. Vaught Farner, R. Farner, Frohnmayer, Gard, Grieshaber, Harmic, Hoffman, C. Knapp, Kracht, L. Meyer, B. Poulshock, Sparks, Tremaine, Youtz; assisted by Bloomingdale, Brink, Dambourian-Eby, Grainger, Hart, S. Knapp, Mazzolini, McCarty, Moore, Odegard, Pressley, N. Poulshock, B. Shapiro, D. Shapiro, Timmerman, Wall.

For introductory courses to the field of music, see the descriptions of Music 101 and 102.

Students intending to major in music should begin the major music sequences in the first year. Failure to do so may mean an extra semester or year to complete the major program.

Music majors should fill out a declaration of major form during their first semester of enrollment in the program and be assigned to a music faculty adviser.

Only grades of "C-" or better in music courses may be counted toward a music major. Courses in which the student receives lower than a "C-" must be repeated unless substitute course work is authorized by the department.

BACHELOR OF ARTS MAJOR: Maximum of 40 semester hours including 123, 124, 125, 126, 132, 223, 225, 226, 227, 231, plus 4 hours of ensemble; 6 hours of literature/theory electives from 327-339, 423-438; 8 hours of private instruction, piano (minimum class level 2). In addition to requirements listed above, candidates for the B.A. degree must meet the foreign language/alternative requirement in the College of Arts and Sciences.

BACHELOR OF ARTS IN EDUCATION:

Bachelor of Arts in Education—Secondary Choral
 Bachelor of Arts in Education—Secondary and Elementary Instrumental
 Bachelor of Arts in Education—Junior High Teaching Major
 Bachelor of Arts in Education—Elementary Music Specialist
 Consult the School of Education section of this catalog.

BACHELOR OF ARTS IN EDUCATION— SECONDARY CHORAL

Music	Core		22†
Music 360-363	Large Ensemble		8
201	Class Piano: Min. Level 6		4†
204/404	Private Instruction: Voice	6 (6 semesters*)	
420	Private Instruction: Recital	1 (half recital)	
248	Guitar Laboratory		1†
345	Basic Conducting		2†
366	Opera Workshop		2
441	Recent Techniques for Elementary Music**		2†
443	Methods and Materials for Secondary Choral Music**		2†
445	Advanced Conducting		2†
453	Vocal Pedagogy		2†
Music	Music Elective		1
		Total	54

† Prerequisite for student teaching.

*The number of required credit hours to be distributed over the number of semesters indicated.

**Required in the Professional Education sequence for Certification.

BACHELOR OF ARTS IN EDUCATION— SECONDARY AND ELEMENTARY INSTRUMENTAL

Music	Core		22†
Music 370,380	Large Ensemble		8
241/242	String Laboratory		2
243/244	Woodwind Laboratory		2
245/256	Brass Laboratory		2, 6†
247	Percussion Laboratory		1
326	Orchestration		2
345	Basic Conducting		2†
2--/4--	Private Instruction: Principal Instrument	6 (6 semesters*)	
420	Private Instruction: Recital	1 (half recital)	
201	Class Piano: Min. Level 4		2†
444	Methods and Materials for School Instrumental Music**		3†
445	Advanced Conducting		2†
		Total	54

† Prerequisite for student teaching.

*The number of required credit hours to be distributed over the number of semesters indicated.

**Required in the Professional Education sequence for Certification. String majors are recommended to take Music 454, String Pedagogy (2).

BACHELOR OF ARTS IN EDUCATION— JUNIOR HIGH TEACHING MAJOR

Music	Core		22†
Music	Large Ensemble		2
Music 201	Class Piano: Min. Level 4		2†
345	Basic Conducting		2†
443 or 444	Methods and Materials: Secondary Choral Music or School Instrumental Music		2 or 3†
		Total	30 or 31

† Prerequisite for student teaching.

**Required in the Professional Education sequence for Certification.

Recommended: Private Instruction in principal instrument or voice and guitar laboratory (4).

BACHELOR OF ARTS IN EDUCATION— ELEMENTARY MUSIC SPECIALIST

Music	Core		22†
Music 360-363	Large Ensemble		8
201	Class Piano: Min. Level 6		4†
204	Private Instruction: Voice		4
248	Guitar Laboratory		1†
341	Music in the Elementary School**		2†
345	Basic Conducting		2†
441	Recent Techniques in Elementary Music**		2†
453	Vocal Pedagogy		2†
	Music Elective		1
		Total	48

† Prerequisite for student teaching.

**Required in the Professional Education sequence for Certification.

BACHELOR OF MUSIC

The department of music also offers the following degree programs:

Bachelor of Music in Instrumental Performance
 Bachelor of Music in Organ Performance
 Bachelor of Music in Piano Performance
 Bachelor of Music in Vocal Performance
 Bachelor of Music in Theory and Composition
 Bachelor of Music in Church Music
 Bachelor of Music in Commercial Music
 Master of Music in Composition, Conducting,
 Music Education, and Performance

Consult the *Graduate Catalog* for details of the Master of Music program.

Following is the program for all entering freshmen who intend to major in music:

Courses	Fall	Spring
Theory: 123, 124	3	2
Music History: 132		4
Ear Training: 125, 126	1	1
Class Piano: 201	1	1
Private Instruction:	1	1
Large Ensemble (performance majors in some areas may postpone this)	1	1
Physical Education	1	1
General University Requirements	4	4

The following core is required in all music degree programs with the exception of Junior High Teaching Minor (non-specialist), Elementary Teaching Major (non-specialist), and Elementary Teaching Minor (non-specialist):

Theory: 123, 124, 223,	7 hours
Music History: 132, 231,	8 hours
Ear Training: 125, 126, 225, 226	4 hours
20th Century: 227	3 hours

M

Music



M

Music



BACHELOR OF MUSIC— INSTRUMENTAL PERFORMANCE

Music	Core	22
Music 370/		
380	Large Ensemble	8
Music 323	Linearity	2
326	Orchestration	2
345	Basic Conducting	2
2/4	Private Instruction	14 (7 semesters*)
420	Private Instruction: Degree Recital	2 (full recital)
201	Class Piano: Min. Level 4	2
381	Chamber Ensemble	4
382	Contemporary Directions Ensemble	2
423	Form I	2
424 or 425	Form II or III	2
445	Advanced Conducting	2
	Literature/Theory Electives from	
	327-339, 424-438	8
	Total	74

*The number of required credit hours to be distributed over the number of semesters indicated.

String majors will take an additional 2 semester hours of Music 454, String Pedagogy.

BACHELOR OF MUSIC—ORGAN PERFORMANCE

Music	Core	22
Music	Ensemble (to include Chamber Ensemble, Contemporary Directions Ensemble)	6
Music 323	Linearity	2
345	Basic Conducting	2
352	Organ Improvisation	2
203/403	Private Instruction: Organ	14 (7 semesters*)
218	Private Instruction: Harpsichord	(2 semesters)
420	Private Instruction: Degree Recital	2 (full recital)
423	Form I	2
424 or 425	Form II or III	2
436	History of Organ Building	2
437	Sacred Music Literature	2
438	Hymnology and Music of the Liturgy	2
	Literature/Theory Electives from	
	327-338, 424-438	6
	Total	68

*The number of required credit hours to be distributed over the number of semesters indicated.

BACHELOR OF MUSIC—PIANO PERFORMANCE

Music	Core	22
Music	Large Ensemble	2
Music 323	Linearity	2
345	Basic Conducting	2
202/402	Private Instruction: Piano	14 (7 semesters*)
218	Private Instruction: Harpsichord	1
420	Private Instruction: Degree Recital	2 (full recital)
351	Accompanying**	2
382	Contemporary Directions Ensemble	1
383	Two Piano Ensemble	2
423	Form I	2
424 or 425	Form II or III	2
431	History of Piano Literature and Performance	2
451	Piano Pedagogy**	4
	Literature/Theory Electives from	
	327-339, 424-438	6
201	Class Piano: Min. Level 8	2
	Total	68

*The number of required credit hours to be distributed over the number of semesters indicated.

**Piano performance majors may elect additional emphasis in accompanying or pedagogy. Those seeking emphasis in accompanying shall elect two additional hours of Music 351 and shall accompany two full vocal or instrumental recitals. Those seeking emphasis in pedagogy shall elect four additional hours of Music 451.

BACHELOR OF MUSIC—VOCAL PERFORMANCE

Music	Core	22
Music		
360-363	Large Ensemble	8
Music 323	Linearity	2
345	Basic Conducting	2
201	Class Piano: Min. Level 8	4
204/404	Private Instruction: Voice	10 (7 semesters*)
420	Private Instruction: Degree Recital	2 (full recital)
353	Solo Vocal Literature	2
366	Opera Workshop	2
423	Form I	2
424 or 425	Form II or III	2
453	Vocal Pedagogy	2
	Literature/Theory Electives from	
	327-339, 424-438**	6
Language	French or German	8
	Total	74

Recommended: PE 241 Modern Dance

COMA 250 Fundamentals of Acting

*The number of required credit hours to be distributed over the number of semesters indicated.

**To include Music 437, Sacred Music Literature

BACHELOR OF MUSIC—THEORY AND COMPOSITION

Music	Core	22
Music	Large Ensemble	2
Music 249	Electronic Music Laboratory	1
323	Linearity	2
326	Orchestration	2
327	Composition (private study)	14
345	Basic Conducting	2
2/4	Private Instruction: Principal Instrument	6
201	Class Piano: Min. Level 8	4
382	Contemporary Directions Ensemble	2
423	Form I	2
424	Form II	2
425	Form III	2
426	Advanced Orchestration	2
445	Advanced Conducting	2
	Literature/Theory Electives from	
	328-339, 426-438	6
	Total	73

BACHELOR OF MUSIC—CHURCH MUSIC

Music	Core	22
360-363	Choral Ensemble	6
360-382	Large Ensemble	1
203/403		
or 204/404	Principal Instrument (Organ or Voice)	12 (7 semesters*)
204/404		
or 203/403	Secondary Instrument (Voice or Organ)	2 (2 semesters*)
420	Private Instruction: Degree Recital	2 (full recital)
352 or 201	Organ Improvisation or Class Piano: Min. Level 8	2
323	Linearity	2
326	Orchestration	2
331	Music of J.S. Bach	2
381	Chamber Ensemble	2
382	Contemporary Directions Ensemble	1
423	Form I	2
424 or 425	Form II or III	2
437	Sacred Music Literature	2
438	Hymnology, Music of the Liturgy	2
445	Advanced Conducting	2
453	Vocal Pedagogy	2
469	Church Music Practicum	2
	Literature/Theory Electives from	
	327-339, 424-438	2
	Religion Elective (Beyond the required courses of Core I or II)	4
	Total	78

*The number of required credit hours to be distributed over the number of semesters indicated.

BACHELOR OF MUSIC—COMMERCIAL MUSIC			
Music	Core		22
360-363,			
370, 380	Large Ensemble		4
127	Jazz Theory I		2
128	Jazz Theory II		2
201	Class Piano (min. level 4)		2
2/4	Private Instruction	6 (6 semesters*)	
420	Private Instruction: Degree Recital	2 (full recital)	
326	Orchestration		2
328	Arranging		2
339	History of Jazz Styles		2
344	Improvisation Workshop		4
345	Basic Conducting		2
372	University Jazz Ensemble		4
423	Form I		2
442	Methods and Materials of Commercial Music		2
449	Recording Techniques and Technology		2
467	Commercial Music Field Experience in Performance		2
	Electives		8
		Total	72

*The number of credit hours required to be distributed over the number of semesters indicated.

COURSE OFFERINGS

101 INTRODUCTION TO MUSIC

Introduction to music literature with emphasis on listening, structure, period, and style. Designed to enhance the enjoyment and understanding of music. Not open to majors. (4)

102 UNDERSTANDING MUSIC THROUGH MELODY

Introduction to the musical arts through a systematic exploration of melody as a primary musical impulse in a wide variety of musical styles including ethnic (folk), popular, jazz, rock, classical, opera, and musical theater. Designed to enhance the enjoyment and understanding of all music through increased sensitivity to melody. Not open to majors. (4)

123 THEORY I

The study of musical terms, fundamentals, notation, melody writing, and harmonization through analysis and writing. (3)

124 THEORY II

A continuation of 123. (2)

125 EAR TRAINING I

Development of aural skills in simple rhythmic dictation, intervals, sight-singing using progressive exercises consisting of short melodies. (1)

126 EAR TRAINING II

Continued development of aural skills in sight-singing, melodic and rhythmic dictation. Elementary harmonic dictation. (1)

127 JAZZ THEORY I

Introduction to the theoretical basis of jazz, including melodic, harmonic, and formal aspects as well as ear training. (2)

128 JAZZ THEORY II

A continuation of 127. Prerequisite: 127 or consent of instructor. (2)

132 MUSIC HISTORY I

The evolution of Western music from the early Christian era through the Middle Ages, Renaissance, and Baroque eras. Prerequisite: 123. (4)

201 CLASS INSTRUCTION: PIANO (1)

202 PRIVATE INSTRUCTION: PIANO (1-4)

203 PRIVATE INSTRUCTION: ORGAN (1-4)

204 PRIVATE AND CLASS INSTRUCTION: VOICE (1-4)

205 PRIVATE INSTRUCTION: VIOLIN/VIOLA (1-4)

206 PRIVATE INSTRUCTION: CELLO/BASS (1-4)

207 PRIVATE INSTRUCTION: FLUTE (1-4)

208 PRIVATE INSTRUCTION: OBOE/ENGLISH HORN (1-4)

209 PRIVATE INSTRUCTION: BASSOON (1-4)

210 PRIVATE INSTRUCTION: CLARINET (1-4)

211 PRIVATE INSTRUCTION: SAXOPHONE (1-4)

212 PRIVATE INSTRUCTION: TRUMPET (1-4)

213 PRIVATE INSTRUCTION: FRENCH HORN (1-4)

214 PRIVATE INSTRUCTION: TROMBONE/BARITONE (1-4)

215 PRIVATE INSTRUCTION: TUBA (1-4)

216 PRIVATE INSTRUCTION: PERCUSSION (1-4)

217 PRIVATE AND CLASS INSTRUCTION: GUITAR (1-4)

218 PRIVATE INSTRUCTION: HARP (1-4)

219 PRIVATE INSTRUCTION: HARPSICHORD (1-4)

Fall and Spring Semesters: One half-hour private, or two one-hour class lessons per week in addition to daily outside practice. Interim: Two 45-minute lessons per week in addition to daily practice. Students receiving permission to register for two semester hours of credit (fall and spring only) will receive two one-half hour private lessons per week. Students in piano, voice, and guitar may be assigned to class instruction at the discretion of the music faculty. Special fee in addition to tuition.

223 THEORY III

Systematic study of emergent theoretical constructs from the 18th and 19th century as represented in literature of that period. (2)

225 EAR TRAINING III

Advanced aural skills through extended rhythms and melodies. Emphasis on harmonic dictation. (1)

226 EAR TRAINING IV

Sight-singing, including pan-tonal melodies. Harmonic dictation of modulatory chord progressions involving chromatic alteration. Advanced rhythmic dictation. (1)

227 20TH CENTURY MUSIC

The evolution of Western art music in the 20th century from early developments to current trends, including study of emergent theoretical constructs. Prerequisites: 223, 231. (3)

231 MUSIC HISTORY II

The evolution of Western music in the Classic and Romantic eras. Prerequisites: 124, 132. (4)

241-242 STRING LABORATORY

Methods and materials of teaching and playing string instruments in the public schools (1, 1)

243-244 WOODWIND LABORATORY

Methods and materials of teaching and playing woodwind instruments in the public schools. (1, 1)

245-246 BRASS LABORATORY

Methods and materials of teaching and playing brass instruments in the public schools. (1, 1)

247 PERCUSSION LABORATORY

Methods and materials of teaching and playing percussion instruments in the public schools. (1)

248 GUITAR LABORATORY

Methods and materials of teaching and playing guitar in the public schools. (1)

M

Music



M

Music

249 ELECTRONIC MUSIC LABORATORY

A laboratory experience dealing with materials and methods of elementary electronic music synthesis. Real-time experience in the electronic music studio, as well as discussion of various popular synthesizers, electronic music aesthetics, and the use of electronic instruments in secondary education. (1)

323 LINEARITY

Study of contrapuntal writing and techniques of primarily the 18th century including canon, invention, and fugue. (2)

326 ORCHESTRATION

The range, transposition, sound, and technical characteristics of instruments. Notation, scoring, and arranging for conventional and unique instrument groupings. Prerequisite: 223. (2)

327 COMPOSITION

A systematic approach to contemporary musical composition; students create and notate works for solo, small and large ensembles. May be repeated for additional credit. Special fee in addition to tuition. (1-4)

328 ARRANGING

Study of orchestral techniques applied to commercial music. Prerequisite: 326 or consent of instructor. (2)

All music literature courses numbered from 331 to 339 are open to all university enrollment without prerequisite.

331 MUSIC OF JOHANN SEBASTIAN BACH

A study of selected works representing each of the primary areas of the creative genius of J.S. Bach. a/y (2)

332 ORNAMENTATION AND PERFORMANCE PRACTICES OF THE BAROQUE

A practical study of vocal and instrumental ornamentation as it evolved in the 17th and 18th centuries. a/y (2)

333 MUSIC OF HAYDN AND MOZART

Score analysis and study of the historical significance of selected works of Haydn and Mozart. a/y (2)

334 MUSIC OF BEETHOVEN

A general survey with in-depth study of selected works. a/y (2)

336 CHAMBER MUSIC LITERATURE

A general survey with in-depth study of selected chamber works for representative genres. a/y (2)

337 THE NINETEENTH CENTURY ART SONG

A study of selected art song literature of Schubert, Schumann, Brahms, Wolf, Strauss, Beethoven, Faure, Debussy, and DuParc. Style analysis and interpretation with performance in class. a/y (2)

338 HISTORY OF OPERA

A general survey with in-depth study of selected opera scores. a/y (2)

339 HISTORY OF JAZZ STYLES

A survey of the evolution of jazz from 1900 to present, including early development and trends. a/y (2)

341 MUSIC IN THE ELEMENTARY SCHOOL

Methods and procedures for the classroom teacher in developing the various music activities in the elementary school. Offered in the fall semester for students preparing to become music specialists. Offered in the spring semester for those students preparing for elementary classroom teaching. (2)

343 VOCAL JAZZ TECHNIQUES

Methods, literature, style, and technique for the vocal jazz ensemble. Emphasis on the acquisition of skills necessary for teaching vocal jazz in the secondary school. (1)

344 IMPROVISATION WORKSHOP

Small group performance emphasizing individual improvisation in a variety of jazz styles. May be repeated for credit. (1)

345 BASIC CONDUCTING

Introduction to basic patterns, gestures, and conducting techniques; application to appropriate vocal and instrumental scores. (2)

349 ELECTRONIC MUSIC PRACTICUM

Application of electronic techniques to compositional process. For non-composition majors only. Assigned studio time on a regular basis. Prerequisite: 249. (1)

351 ACCOMPANYING

Practice in accompanying representative vocal and instrumental solo literature from all periods. Special fee in addition to tuition. (1)

352 ORGAN IMPROVISATION

Basic techniques of improvisation, particularly as related to hymn tunes. a/y (2)

353 SOLO VOCAL LITERATURE

Survey of solo vocal literature. (2)

360 CHOIR OF THE WEST

A study of choral literature and technique through rehearsal and performance of both sacred and secular music. Emphasis on individual vocal development through choral singing. Auditions at the beginning of fall semester. (1)

361 UNIVERSITY CHORALE

A study of choral literature and technique through rehearsal and performance of both sacred and secular music. Emphasis on individual vocal development through choral singing. Auditions at the beginning of fall semester. (1)

362 CONCERT CHOIR

A study of choral literature and technique through rehearsal and performance of both sacred and secular music. Emphasis on individual vocal development through choral singing. Auditions at the beginning of fall semester. (1)

363 UNIVERSITY SINGERS

A study of choral literature and technique through rehearsal and performance of both sacred and secular music. Emphasis on individual vocal development through choral singing. (1)

364 MADRIGAL

A study of secular part song through reading and performance. (1)

366 OPERA WORKSHOP

Production of chamber opera and opera scenes. Participation in all facets of production. Prerequisite: consent of instructor. (1)

370 UNIVERSITY SYMPHONIC BAND

Study of selected band literature through rehearsal and performance. Membership by audition. (1)

372 UNIVERSITY JAZZ ENSEMBLE

Study of selected jazz literature through rehearsal and performance. Membership by audition. (1) Section A-Instrumental; Section B-Vocal.

380 UNIVERSITY SYMPHONY ORCHESTRA

Study of selected orchestral literature through rehearsal and performance. Membership by audition. (1)

381 CHAMBER ENSEMBLE

Reading, rehearsal, and performance of selected instrumental chamber music. Prerequisite: consent of instructor. (1) Section A-String; Section B-Brass; Section C-Woodwind; Section D-Early Instruments.

382 CONTEMPORARY DIRECTIONS ENSEMBLE

Public and laboratory performance of contemporary music. (1)

383 TWO PIANO ENSEMBLE

Techniques and practice in the performance of two-piano and piano duet literature; includes sight reading and program planning. (1)

401 PRIVATE INSTRUCTION: JAZZ (1-4)

402 PRIVATE INSTRUCTION: PIANO (1-4)

403 PRIVATE INSTRUCTION: ORGAN (1-4)

404 PRIVATE INSTRUCTION: VOICE (1-4)

405 PRIVATE INSTRUCTION: VIOLIN/VIOLA (1-4)

- 406 **PRIVATE INSTRUCTION: CELLO/BASS (1-4)**
- 407 **PRIVATE INSTRUCTION: FLUTE (1-4)**
- 408 **PRIVATE INSTRUCTION: OBOE/ENGLISH HORN (1-4)**
- 409 **PRIVATE INSTRUCTION: BASSOON (1-4)**
- 410 **PRIVATE INSTRUCTION: CLARINET (1-4)**
- 411 **PRIVATE INSTRUCTION: SAXOPHONE (1-4)**
- 412 **PRIVATE INSTRUCTION: TRUMPET (1-4)**
- 413 **PRIVATE INSTRUCTION: FRENCH HORN (1-4)**
- 414 **PRIVATE INSTRUCTION: TROMBONE/BARITONE (1-4)**
- 415 **PRIVATE INSTRUCTION: TUBA (1-4)**
- 416 **PRIVATE INSTRUCTION: PERCUSSION (1-4)**
- 417 **PRIVATE INSTRUCTION: GUITAR (1-4)**
- 418 **PRIVATE INSTRUCTION: HARP (1-4)**
- 419 **PRIVATE INSTRUCTION: HARPSICHORD (1-4)**
- 420 **PRIVATE INSTRUCTION: DEGREE RECITAL (1-2)**
- Fall and Spring Semesters: One half-hour private, or two one-hour lessons per week in addition to daily practice. Interim: Two 45-minute lessons per week in addition to daily practice. Students receiving permission to register for 2-4 semester hours of credit (fall and spring only) will receive two one-half hour private lessons per week. Students in piano, voice, and guitar may be assigned to class instruction at the discretion of the music faculty. Special fee in addition to tuition.
- 423 **FORM I**
- Advanced analysis of literature from Classic, Early and Middle Romantic styles in representative genres and media. (2)
- 424 **FORM II**
- Advanced analysis of literature from late Romantic, Impressionist, and Nationalistic styles in representative genres and media. Prerequisite: 423. a/y (2)
- 425 **FORM III**
- Advanced analysis of literature from Modern and Contemporary styles in representative genres and media. Prerequisite: 423. a/y (2)
- 426 **ADVANCED ORCHESTRATION**
- Directed study and scoring of selected piano works for large ensemble; independent study, may be repeated for additional credit. Offered on demand. (1-2)
- 428 **ADVANCED ARRANGING**
- A continuation of 328 on an individualized basis. Prerequisite: 328 or consent of instructor. May be repeated for additional credit. (1-2)
- All music literature courses numbered from 431 to 438 are open to all university enrollment without prerequisite.*
- 431 **HISTORY OF PIANO LITERATURE AND PERFORMANCE**
- A study of representative piano compositions of all periods. a/y (2)
- 432 **MUSIC OF THE WORLD'S PEOPLE**
- A survey of the various musical cultures of the world: Africa, the Middle East, India and neighboring lands, the Far East, the Pacific Islands, and the Americas. Final sessions devoted to (1) oral tradition, and (2) the music of those Western "art music" composers who have drawn much of their inspiration from non-Western or folk sources. a/y (2)

- 433 **MUSIC OF BELA BARTOK**
- A study of representative works of various periods of Bartok. a/y (2)
- 435 **MUSIC IN THE UNITED STATES: A HISTORICAL INTRODUCTION**
- A survey from the colonial period to the present covering both the cultivated and the vernacular traditions. a/y (2)
- 436 **HISTORY OF ORGAN BUILDING**
- A two-fold study, involving both the technical evolution of the pipe organ (key-actions, windchest designs, pipework varieties and construction, the organ case) as well as the historical evolution of the various concepts of tonal design as these relate to the performance of organ literature. a/y (2)
- 437 **SACRED MUSIC LITERATURE**
- A survey of church music primarily through the study of representative major works. a/y (2)
- 438 **HYMNOLOGY AND THE MUSIC OF THE LITURGY**
- A survey of Christian hymnody, considered from both a musical and poetic viewpoint. Also considered will be the concept and performance of music for the liturgy, both historic and contemporary, primarily from the Roman, Anglican, and Lutheran traditions. a/y (2)
- 439 **CHURCH MUSIC**
- Survey of choral music related to the church year suitable for the parish choir. Particular emphasis on building the parish music library. a/y (2)
- 441 **RECENT TECHNIQUES FOR ELEMENTARY MUSIC**
- The concern of the upper elementary and middle school music teacher, including Orff and Kodaly techniques. (2)
- 442 **METHODS AND MATERIALS OF COMMERCIAL MUSIC**
- Sources and applications of commercial music methods and materials, including business and legal considerations. (2)
- 443 **METHODS AND MATERIALS FOR SECONDARY CHORAL MUSIC**
- The organization and administration of the secondary school music curriculum with particular attention to the needs of the choral program. Organization, management, teaching methods, rehearsal techniques, and choral literature appropriate for the various age and experience levels of students in grades 7-12. (2)
- 444 **METHODS AND MATERIALS FOR SCHOOL INSTRUMENTAL MUSIC**
- The organization and administration of the secondary school music curriculum with particular attention to the needs of the instrumental program. Organization, management, teaching methods, rehearsal techniques, and instrumental literature appropriate for the various age and experience levels of students in grades 4-12. (3)
- 445 **ADVANCED CONDUCTING**
- Refinement of patterns, gestures, and conducting techniques; application to appropriate vocal and instrumental scores. Prerequisite: 345. (2)
- 449 **RECORDING TECHNIQUES AND TECHNOLOGY**
- The theory and practice of audio recording, including laboratory experience with various media, recording equipment, locations, and genre. Private or group instruction. Special fee. a/y (2)
- 451 **PIANO PEDAGOGY**
- Teaching techniques for prospective teachers of piano, including techniques of private and class piano instruction. Methods and materials from beginning through advanced levels. (2) Section A-Basic; Section B-Lower Elementary; Section C-Upper Elementary; Section D-Advanced.
- 452 **ORGAN PEDAGOGY AND REPERTOIRE**
- Methods and techniques of private organ instruction, including supervised practical experience. A survey of organ literature representative of all major composers and style periods. a/y (2)



M

Music

453 VOCAL PEDAGOGY

Physiological, psychological, and pedagogical aspects of singing. (2)

454 STRING PEDAGOGY

The physiological and psychological approach to string playing and teaching. Includes discussion and demonstration of instrument and bow techniques, private lesson approach and materials, general and specific string problems. a/y (2)

467 COMMERCIAL MUSIC FIELD EXPERIENCE IN PERFORMANCE

Preparation for professional work through practical field experience in performance situations. Prerequisites: 442, consent of instructor, and junior or senior status. (2)

468 PRACTICUM IN COMMERCIAL MUSIC

A supervised educational experience in a work setting. Prerequisites: consent of instructor and junior or senior status. May be repeated for additional credit. (2)

469 CHURCH MUSIC PRACTICUM

Planning, rehearsing, and providing weekly music for a local church under the guidance of a faculty member. (2)

491, 492 INDEPENDENT STUDY

Prerequisite: consent of instructor. May be repeated for additional credit. (1-4)

502 PRIVATE INSTRUCTION: PIANO (1-4)**503 PRIVATE INSTRUCTION: ORGAN (1-4)****504 PRIVATE INSTRUCTION: VOICE (1-4)****505 PRIVATE INSTRUCTION: VIOLIN/VIOLA (1-4)****506 PRIVATE INSTRUCTION: CELLO/BASS (1-4)****507 PRIVATE INSTRUCTION: FLUTE (1-4)****508 PRIVATE INSTRUCTION: OBOE/ENGLISH HORN (1-4)****509 PRIVATE INSTRUCTION: BASSOON (1-4)****510 PRIVATE INSTRUCTION: CLARINET (1-4)****511 PRIVATE INSTRUCTION: SAXOPHONE (1-4)****512 PRIVATE INSTRUCTION: TRUMPET (1-4)****513 PRIVATE INSTRUCTION: FRENCH HORN (1-4)****514 PRIVATE INSTRUCTION: TROMBONE/BARITONE (1-4)****515 PRIVATE INSTRUCTION: TUBA (1-4)****516 PRIVATE INSTRUCTION: PERCUSSION (1-4)****517 PRIVATE INSTRUCTION: GUITAR (1-4)****518 PRIVATE INSTRUCTION: HARP (1-4)****519 PRIVATE INSTRUCTION: HARPSICORD (1-4)****520 PRIVATE INSTRUCTION: CONDUCTING (1-4)**

Fall and Spring Semesters: One half-hour private, or two one-hour class lessons per week in addition to daily practice. Interim: Two 45-minute lessons per week in addition to daily practice. Students receiving permission to register for 2-4 semester hours of credit (fall and spring only) will receive two one-half hour private lessons per week. Students in piano, voice, and guitar may be assigned to class instruction at the discretion of the music faculty. Special fee in addition to tuition.

527 COMPOSITION

A systematic approach to contemporary music composition; students create, notate, and perform works for solo, small and large ensembles. May be repeated for credit. (1-4)

532 MUSIC BIBLIOGRAPHY AND RESEARCH TECHNIQUES

Survey of the main research tools available for advanced work in music. Course content can be adapted to needs of students in music education, theory, or performance. a/y (2)

539 TOPICS IN MUSIC HISTORY

Development of a research paper on a selected subject relating to the departmental upper division offerings in music history and literature. (331-339, 431-438). (2)

545 SEMINAR IN ADVANCED CONDUCTING

Directed study of selected scores for large and small ensembles, vocal and instrumental. May be repeated for credit. (2)

549 ELECTRONIC MUSIC SYNTHESIS

Directed study of electronic music literature, techniques, and composition. May be repeated for credit. (1-2)

551 ACCOMPANYING

Practice in accompanying representative vocal and instrumental solo literature from all periods. Accompanying in performance will be required. Special fee in addition to tuition. (1)

560 CHOIR OF THE WEST

A study of choral ensemble rehearsal techniques with emphasis on score analysis. (1)

561 UNIVERSITY CHORALE

A study of choral ensemble rehearsal techniques with emphasis on vocal pedagogy in the rehearsal. (1)

566 OPERA WORKSHOP

Production of chamber opera and opera scenes. Participation in all facets of production. Prerequisite: consent of instructor. (1)

570 UNIVERSITY SYMPHONIC BAND

A study of band rehearsal techniques with emphasis on score analysis. (1)

572 UNIVERSITY JAZZ ENSEMBLE

A study of jazz ensemble rehearsal techniques with emphasis on stylistic considerations. (1)

580 UNIVERSITY SYMPHONY ORCHESTRA

A study of orchestra ensemble rehearsal techniques with emphasis on score analysis. (1)

581 CHAMBER ENSEMBLE

Analysis, rehearsal, and performance of selected instrumental chamber music. Prerequisite: consent of instructor. (1)

582 CONTEMPORARY DIRECTIONS ENSEMBLE

Public and laboratory performance of contemporary music. Emphasis on score analysis. (1)

583 TWO-PIANO ENSEMBLE

Performance of two-piano and piano duet literature, including score analysis. (1)

590 GRADUATE SEMINAR (1-4)**596 RESEARCH IN MUSIC (1-4)****599 THESIS (2-4)**

Division of
Natural Sciences

N

Science education at Pacific Lutheran University is directed both toward undergraduate preparation of future science professionals and toward the creation of critical scientific awareness for liberally educated citizens in all walks of life.

Science must be taught as fundamental principles, groups of concepts, bodies of knowledge, and means for survival. Holistic solutions to global problems require the ability to interrelate technical knowledge and human values.

Concern for how science is used must not obscure the motivation for pursuit of the best scientific work: the joy of trying and succeeding, the joy of discovery and understanding.

FACULTY

J. Herzog, *Divisional Dean*; faculty members of the Departments of Biology, Chemistry, Earth Sciences, Mathematics and Computer Science, and Physics and Engineering.

As a division within the College of Arts and Sciences, the Division of Natural Sciences offers programs in each constituent department leading to the B.A. and B.S. degrees and to the B.S. in Medical Technology. Course offerings and degree requirements are listed under:

**BIOLOGY
 CHEMISTRY
 COMPUTER SCIENCE
 EARTH SCIENCES
 MATHEMATICS
 PHYSICS AND ENGINEERING**

See also the sections of this catalog on the Environmental Studies Program and on the Health Sciences (under Pre-professional Programs).

Courses suitable for meeting Core I requirements in Natural Sciences/Mathematics may be found within each department or below:

COURSE OFFERING

106 COSMOS, EARTH, AND LIFE

Consideration of the beginnings, evolution, and possible fates of the universe as revealed by present evidence. The formation and development of planet earth, geologic processes through geologic time. The impact of civilization on global resources. The atomic and molecular view of chemical prerequisites for life. The origin and formation of the atmosphere and potential threats of altering its constituents. Study of the development and diversification of life by focusing on unifying concepts and control systems. Laboratory experiences to reinforce understanding of how hypotheses are built and critically tested. Fulfills Natural Sciences/Mathematics core requirement, line 1 or 2. (4)

Division of Natural Sciences

School of **Nursing**

A nursing career offers great opportunity for a rich and rewarding professional life. It affords virtually unlimited choice of location, environment, and type of service. The physical, mental, social, and spiritual health of people is of universal concern, and those prepared to maintain their good health are in constant demand.

The School of Nursing is a professional school which combines professional and liberal arts studies in assisting students to develop a sense of responsibility for acquiring the attitudes, knowledge, and skills necessary for meeting nursing needs of individuals, groups, and communities.

The generic program is designed for students with no previous preparation in nursing. Graduates who successfully complete the program are eligible to write the State Board of Nursing examination for licensure as Registered Nurses. They are pre-

pared for beginning positions in professional nursing in hospitals and other health agencies. There is a special sequence for Registered Nurse students, graduates from diploma or associate degree programs, who wish to earn the Bachelor of Science in Nursing degree. The program provides a foundation for graduate study in nursing.

Under the direct supervision of its faculty members, the School uses facilities of hospitals, health agencies, and schools in the community to provide optimal clinical learning experience for its students.

The School of Nursing is accredited by the Washington State Board of Nursing and by the National League for Nursing. It is a charter member of the Western Council on Higher Education for Nursing.



FACULTY

Mansell, *Dean*; Aikin, Allen, Carpenter, Cone, Coombe, Egan, Gough, C. Hansen, Hefty, Hirsch, D. Johnson, Kirkpatrick, Kramer, Lingenfelter, Mason, McGear, L. Olson, Page, Rhoades, Schultz, Shumaker, Stavig, Stiggebout, Weirick, Yumibe.

ADMISSION AND CONTINUATION POLICIES

Students seeking admission to either the generic program or the program for registered nurses must make formal application to both the university and the School of Nursing.

Applications for admission to the School of Nursing are accepted twice during the year. Students desiring admission to either fall or spring semester of the following academic year must submit applications between January 1 and February 15. Additional applications from students wishing to be considered for any remaining admissions for the spring semester must be submitted by September 15. Applications are reviewed only if the applicants have been admitted to PLU and have provided official transcripts as requested by the School of Nursing Admissions Committee.

The number of spaces in the School of Nursing each semester is limited; therefore, the selection of students for admission may be competitive. In making the selection, the School of Nursing Admissions Committee uses grades as the major means of determination.

Students accepted to begin the nursing sequence in either fall or spring semester, and who have applied by the February 15 deadline, are selected for both terms and notified by May 1. Students are admitted to the term of their choice insofar as it is possible. If there are more applicants than can be accommodated, deferred admission to the next term may be necessary. Additional selection for the spring semester is made in the fall with notification by November 1.

With satisfactory progress, six semesters are required to complete the sequence of nursing courses leading to the Bachelor of Science in Nursing. All potential or pre-nursing students are urged to seek academic advisement through the School of Nursing Office in order to enroll for appropriate prerequisites and thereby avoid unnecessary loss of time.

The School of Nursing reserves the right to request withdrawal of a nursing student who fails to demonstrate competency or who fails to maintain professional conduct.

Minimal criteria for admission to or continuation in the School of Nursing are as follows:

1. Admission to the university. Applicants must have been admitted to Pacific Lutheran University before consideration of their application. However, admission to the university does not guarantee admission to the School of Nursing.
2. Completion of or current enrollment in Psychology 101 (Introduction to Psychology) and three of the following: Biology 201 (Introductory Microbiology), Biology 205, 206 (Human Anatomy and Physiology), Chemistry 105 (Chemistry of Life), and Sociology 101 (Introduction to Sociology). The remaining courses will be completed after enrolling in the nursing program; however, both Biology 205 and 206 must be completed before enrollment in Nursing 220 and 224. Students need to plan their schedules accordingly.
3. Completion of a minimum of 26 semester credit hours. Some of these may be in progress at the time of application.
4. A minimum grade of 2.00 in all required nursing and prerequisite courses. A student receiving a grade of less than 2.00 in any course which is a prerequisite for a nursing course may not continue in that nursing course until the prerequisite course is repeated with a grade point of 2.00 or above.
5. A minimum cumulative grade point average of 2.33.
6. Physical health and stamina necessary to withstand the demands of nursing.
7. Emotional stability sufficient to cope with the stresses inherent in learning and practicing nursing.

Registered nurses are admitted to begin their nursing program in the fall semester. They may choose to be enrolled full-time for a total of sixteen months, or to extend their program and enroll on a part-time basis. The registered nurse student must have completed all non-nursing course prerequisites and a minimum of 24 semester credits of the core requirements and electives for a total of 56 semester credits. Other minimal criteria for admission to or continuation in the nursing program are as outlined above for the generic student. The registered nurse who is considering making application for admission to the nursing program is advised to contact the School of Nursing for advice about prerequisites to be completed, other requirements to be met, and the program to pursue after admission.

HEALTH

The nursing student is responsible for maintaining optimal health and is a teacher of health. Physical examination, x-rays, and immunizations are required before admission to the clinical areas, and periodically thereafter, and are the responsibility of the student. Each student must carry personal health insurance.

ADDITIONAL COSTS

In addition to regular university costs, students are to provide their own transportation between the university campus and the clinical laboratory areas beginning with the first nursing course. Available public transportation is limited, so provision for private transportation is essential. Students are required to carry professional liability insurance during all periods of clinical experience. This is available under a group plan at a nominal cost to the student. Health examination fees, student uniforms (approximately \$115.00) and equipment (wristwatch, scissors, stethoscope) are also the responsibility of the student.

CERTIFICATION FOR SCHOOL NURSING

Educational Staff Associate Certification for school nurses is individually designed through a consortium consisting of a school district, related professional association, and Pacific Lutheran University. Additional information on this program can be obtained by contacting the dean of the School of Education or the dean of the School of Nursing.

RESOURCES AND FACILITIES

Good Samaritan Hospital, Puyallup, WA (225 beds)

David K. Hamry, M.H.A., President

Peggy Cannon, Vice President

Lakewood General Hospital, Tacoma, WA (105 beds)

Bruce M. Yeats, Administrator

Peggy Dawson, R.N., Assistant Administrator for Nursing Service

Madigan Army Medical Center, Tacoma, WA (493 beds)

Brigadier General Guthrie L. Turner, Jr., M.D., Commanding Officer

Colonel Beverly Glor, B.S.N., M.S., D.N., Chief, Department of Nursing

Mary Bridge Children's Health Center, Tacoma, WA (68 beds)

J. Peter Johnson, M.H.A., Administrator

Karen Lynch, R.N., B.S.N., Assistant Administrator for Patient Services

Puget Sound Hospital, Tacoma, WA (151 beds)

Michael H. Keisling, C.E.O., Administrator

Larry I. Howell, B.S.N., M.N., Assistant Administrator/Director of Nursing

St. Joseph Hospital, Tacoma, WA (297 beds)

Daniel Russell, B.S., M.H.A., Administrator

Hazel Hurst, R.N., B.S., M.N., Assistant Administrator for Nursing Service

St. Peter Hospital, Olympia, WA (230 beds)

David L. Bjornson, M.H.A., Administrator

Anne Bertolin, R.N., B.S.N., Director of Nursing Service

Tacoma General Hospital, Tacoma, WA (315 beds)

Fred A. Pritchard, M.B.A., President

Betty Hoffman, R.N., B.S.N., M.N., Director of Nursing Service
Tacoma-Pierce County Health Department, Tacoma, WA

R. M. Nicola, M.D., M.H.S.A., Director, Tacoma-Pierce County Health Department

Nancy Cherry, R.N., M.P.H., Director of Nursing

Tacoma Public Schools, Tacoma, WA

Donna G. Ferguson, R.N., M.N., Coordinator of Health and Handicapped, Division of Health

The Doctors Hospital, Tacoma, WA (70 beds)

Mal Blair, M.H.A., Administrator

Lovette Wilson, R.N., M.N., Acting Director of Nursing

Veterans Administration Hospital, Tacoma, WA (512 beds)

William E. Claypool, A.B., M.H.A., Director

Joan Stout, R.N., B.S.N., M.N.A., Chief, Nursing Service

Western State Hospital, Steilacoom, WA (924 beds)

Ulysses Watson, M.D., Superintendent

Patricia Pickett, R.N., Acting Director of Nursing



BACHELOR OF SCIENCE IN NURSING

The curriculum plan and its implementation are designed to foster growth and to encourage initiative and self-direction on the part of the student. In addition to nursing requirements, the student is expected to meet university requirements. Nursing courses are sequential in nature and all have prerequisites. A student interested in the Bachelor of Science in Nursing degree should contact the School of Nursing and begin the course sequence upon entrance to the university.

For spring semester enrollment the curriculum generally follows the fall semester format with modifications as necessary to assure completion of all prerequisite courses by the time they are needed. A schedule of courses is developed individually with each student who begins nursing courses in the spring semester. Nursing courses must be taken concurrently and in sequence as indicated in the sample curriculum, and normally extend over six semesters.

FIRST YEAR--Pre-Nursing**Fall Semester**

Biology 205	4
Psychology 101 or Sociology 101	4
GUR/Core	4
Physical Education 100	1
	<hr/> 13

Interim

Elective	4
	<hr/> 4

Spring Semester

Chemistry 105	4
Sociology 101 or Psychology 101	4
Biology 206	4
Physical Education	1
	<hr/> 13

SECOND YEAR**Fall Semester**

Biology 201	4
GUR/Core	4
Psychology 335 or Education 321	4
Nursing 214	4
Physical Education	1
	<hr/> 17

Interim

Elective	4
	<hr/> 4

Spring Semester

Nursing 220	4
Nursing 224	4
GUR/Core	4
Elective	4
Physical Education	1
	<hr/> 17

THIRD YEAR**Fall Semester**

Nursing 334	4
Nursing 344	4
GUR/Core	8
	<hr/> 16

Interim (optional)

0-4

Spring Semester

Nursing 354	4
Nursing 384	4
Nursing 394	4
GUR/Core	4
	<hr/> 16

FOURTH YEAR**Fall Semester**

Nursing 424	4
Nursing 434	4
Nursing 444	4
GUR/Core	4
	<hr/> 16

Interim (optional)

0-4

Spring Semester

Nursing 464	4
Nursing 478	8
	<hr/> 12

*GUR = general university requirement

COURSE OFFERINGS**214 SOCIALIZATION TO NURSING**

Introduction to historical perspectives and current trends in professional nursing and nursing education. Concepts of self and society, wellness, human needs, nursing process, and health care systems. Framework for developing effective communication skills and helping relationships. Community experiences with well elderly clients. Prerequisites: Admission to the nursing major, PSY 101, and prior or concurrent enrollment in SOC 101. (4)

220 COMMONALITIES IN NURSING CARE

Introduction to the use of the nursing process and psychomotor skills in client care. Emphasis on the role of the professional nurse in implementation of the nursing process. Selected clinical experience with adult clients in hospitals or nursing homes. Prerequisites: BIOL 201, 205, and 206; NURS 214; concurrent enrollment in NURS 224. (4)

224 HEALTH ASSESSMENT

Health assessment of children and adults. Emphasis on beginning assessment techniques as part of the nursing process. Introduction to the use of health resources, the influence of eco-systems, and the role of the health team in wellness promotion. Prerequisites: BIOL 205 and 206; CHEM 105; NURS 214; prior or concurrent enrollment in PSY 335 (or EDUC 321); concurrent enrollment in NURS 220. (4)

334 NURSING PROCESS: INDIVIDUALS AND FAMILIES

Basic interruptions in human bio-psycho-social processes with resultant health disruptions. Selected situational and maturational crises affecting individuals and families. Development of psychomotor skills and nursing interventions within the framework of the nursing process. Prerequisites: 220, 224; concurrent enrollment in 344. (4)

344 NURSING IN THE CHILDBEARING YEARS

Individual and family adaptations throughout the pregnancy cycle: Physiological and psycho-sociocultural aspects of childbearing. Theory and clinical application in physicians' offices, hospitals, and home environments. Prerequisites: 220, 224; concurrent enrollment in 334. (4)

354 PHYSIOLOGICAL NURSING I

Content focuses on selected complex pathophysiological disorders of children and adults with nursing interventions to facilitate adaptation and restoration to maximum level of wellness. Holistic approach to assist in meeting the physiological and psychosocial needs of clients and families. Prerequisites: 334, 344; concurrent enrollment in 384, 394. (4)

384 PSYCHOSOCIAL NURSING

Introduction to selected acute and chronic psychiatric disorders of adults. Emphasis on psychopathological aspects of illness and nursing interventions using interpersonal and other contemporary modalities in the care of clients with mental health problems. Prerequisites: 334, 344; concurrent enrollment in 354, 394. (4)

394 CLINICAL PRACTICUM I

Clinical laboratory for Nursing 354 and 384. Application of theoretical principles based on concepts of pathophysiology and psychopathology to the care of clients using the nursing process as a framework for holistic care. Development of interpersonal and technical skills. Prerequisites: 334, 344; concurrent enrollment in 354, 384. (4)

424 PHYSIOLOGICAL NURSING II

Content focuses on selected complex pathophysiological disorders of children and adults of a life-threatening or chronically disabling nature. Nursing interventions based on understanding of the bio-psycho-social disruptions and means of restoring balance to an optimal level of functioning. Prerequisites: 354, 384, 394; concurrent enrollment in 434, 444. (4)

434 COMMUNITY HEALTH NURSING

Identification of major public health problems, levels of prevention, and community health nurses' roles. Models and theories for evaluating, reinforcing, or altering health-seeking behaviors of families, groups, and special populations. Introductions to selected theories, principles, and methods of leadership, and concepts of research in nursing. Prerequisites: 354, 384, 394; concurrent enrollment in 424, 444. (4)

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School of Nursing



P

Philosophy

444 CLINICAL PRACTICUM II

Clinical application of bio-psycho-social, cultural, and spiritual concepts in acute care hospital and community settings. Use of the nursing process includes interpersonal as well as technological skills. Professional responsibility and accountability are emphasized. Prerequisites: 354, 384, 394; concurrent enrollment in 424, 434. (4)

464 LEADERSHIP IN NURSING

Analysis of health care delivery systems. Emphasis on leadership and economic aspects affecting health professionals and consumers. Prerequisites: 424, 434, 444; concurrent enrollment in 478. (4)

478 SENIOR PRACTICUM

Clinical application and synthesis of professional and technical skills in hospitals, health agencies, or other community settings. Prerequisites: 424, 434, 444; concurrent enrollment in 464. (8)

491, 492 INDEPENDENT STUDY

Prerequisite: Permission of the dean. (1-4)

Philosophy

Philosophy is the original academic discipline from which the contemporary arts and sciences have emerged. It continues to examine basic issues in all of these fields as well as to pursue its own distinctive concerns about the nature of truth and reality. Characteristic philosophical questions include: What is human nature, and what does it imply for the possibility of happiness and a good life? Are human beings really free? What is the mind, and what is its place in the physical universe? What objectivity is there to moral, aesthetic, and religious beliefs? What is the scientific method and its significance for the rest of human culture? Studying philosophy acquaints one with rival world views, develops the habit of careful and systematic thought, and helps one to see life critically, appreciatively, and whole.

FACULTY

P. Menzel, *Chair*; Arbaugh, Cooper, Huber, Myrbo, Nordby.

USES OF PHILOSOPHY

Courses in philosophy meet the needs of a variety of students: (1) those who desire some knowledge of philosophy as a basic element in a liberal education; (2) those who wish to pursue some special interest, for example, in ethics, science, religion, the history of thought, or the ideas of particular men or peoples; (3) those who wish to support their work in other fields, for example, literature, history, religion, the sciences, education, or business; (4) those who plan to use a major in philosophy as preparation for graduate or professional study in another field, for example, theology, medicine, or law; and (5) those who plan to do graduate work in philosophy itself, usually with the intention of teaching in the field.

Undergraduate study in philosophy does not train one specifically for a first job. It does, however, provide essential perspectives, as well as basic skills in analysis and interpretation, problem solving, research and writing. These—usually coupled with specialized training in other disciplines—fit one for a great variety of vocational responsibilities. Persons with the greatest upward mobility in fields such as business management, law, education, engineering, operations research, data processing, or social work, are generally not those with the most specialized training, but those with broad perspectives, flexibility and depth, and skills in thought and communication.

SUPPORTING PROGRAMS IN PHILOSOPHY FOR OTHER FIELDS

Philosophy provides a solid foundation for a variety of studies and careers. Students using it to support primary work in other fields may elect a minor or major or some other combination of courses of interest. Those with double majors may request a modification or reduction of the requirements for the standard major.

Recommended programs of study in philosophy to support work in a variety of other disciplines and for a variety of careers are described in separate brochures available in the departmental office. These include business, education, health professions, law, parish ministry and theological studies, social work, fine arts, humanities, and social and natural sciences.

A PROGRAM OF QUALITY

PLU's department of philosophy offers a distinctive course of studies. The faculty all hold the doctorate, have studied at leading institutions in this country and abroad, and have participated in professional programs in the United States and Europe. The excellence of the department is evidenced by grants received and by the success of its graduates at major graduate and professional schools throughout the country. The department strongly emphasizes the quality of its teaching. All students, but especially those with major or minor programs, receive individual attention and assistance.

INTERIM OFFERINGS

Special interim courses at PLU explore a variety of topics and cultural perspectives. On-campus studies have been concerned with themes of social and legal philosophy, war and morality, justice, love, capitalism and business, bio-medical ethics, religion and science, and the computer revolution.

UNIVERSITY CORE REQUIREMENT

The general university core requirement of four hours in philosophy may be satisfied by any course offered except 100 *Reasoning*, 121 *Critical Thinking and Writing*, and 233 *Introduction to Logic*. A variety of 2-4 credit hour courses dealing with moral issues, 226 *Moral Problems*, 325 *Business Ethics*, 326 *Moral Problems in the Social Services*, 328 *Philosophy of Law*, and 385 *Health Care Ethics*, satisfy this requirement only if 225 *Ethical Theory* (2 hours) is also taken. 341 *Philosophy of Mathematics—Set Theory*, 342 *Philosophy of Mathematics—Godel and Truth*, and 343 *Philosophy of Logics* count toward this requirement only when taken in addition to 225 or 233. The initial course in philosophy is customarily 101, 125, or 225, though none of these courses is strictly a prerequisite for any other course. 300-level courses are especially suited for students with particular interests. Faculty consent may be required for some courses.

MINOR: 16 semester hours. A minor in philosophy consists of four approved courses; for transfer students, at least two must be taken at PLU. Students considering a minor should discuss their personal goals with departmental faculty. If they elect a minor in the field, they should formally declare this with the registrar and the department chair. Minors will choose for themselves or be assigned an adviser, in consultation with whom they should plan their program.

BACHELOR OF ARTS MAJOR: Minimum of 28 semester hours. Students intending to major in philosophy must formally declare this with the registrar and the department chair. They should choose a departmental adviser in consultation with whom they will plan their programs.

A person majoring in the department will:

1. complete a minimum of six regular courses in philosophy, including one course in logic and any two of the four courses in the history of philosophy sequence (331 *Ancient Philosophy*, 332 *Medieval Philosophy*, 333 *Modern Philosophy*, 335 *Contemporary Philosophy*). Transfer students will normally take three or more of these six courses at PLU.



2. complete 493, *Senior Research Seminar*, which involves writing a research paper under the supervision of one or more faculty members and taking a comprehensive senior examination. The examination is largely diagnostic in nature, and it is not necessary for a student to achieve a specified level of performance to complete the major or to graduate. Performance on this examination will determine one third of the student's grade in the *Senior Research Seminar*.
3. complete the departmental reading program. Excellent programs in the arts and sciences do not rely exclusively on lecturing and group study or on secondary works, but also on one-to-one tutorial instruction in primary sources. Majors in philosophy at Pacific Lutheran University are expected to read and discuss a number of classical works under the personal supervision of various members of the departmental faculty. Not all works will be additions to course materials; some will also be covered in regular courses, and these may be read and discussed simultaneously with class study. With departmental approval, the standard list may be modified in accordance with special needs or interests, or reduced for those with double majors. The list should be secured at an early date from the departmental office, and one's reading program should be developed in consultation with an adviser. It is best that the reading program not be concentrated into a single semester but pursued at a leisurely pace over an extended period.

It is recommended that students familiarize themselves with main themes and major schools of western philosophical thought, for example, pragmatism, realism, linguistic analysis, positivism, dialectical materialism, and existentialism. Students should make use of major histories and other secondary sources such as the *Encyclopedia of Philosophy*. It is also expected that they will meet regularly but informally with both faculty and other advanced students to discuss and thereby enrich their work in the field.

COURSE OFFERINGS

100 REASONING

Development of reasoning skills and an appreciation for the diverse areas to which they apply, for example, in religion, literature, science, and computer language. Students learn how to ask clear questions, recognize and evaluate assumptions, distinguish various kinds of proofs, and avoid errors of reasoning in arguments. Does not satisfy philosophy core requirement. I II (2)

101 PHILOSOPHICAL ISSUES

Perennial philosophical issues, systems, and thinkers; the nature of knowledge, the function of science, values, human nature and its social implications, religion and knowledge of God. Development of critical and systematic philosophical thinking about all issues. I II (4)

121 CRITICAL THINKING AND WRITING

Development of the ability to organize and write clear, direct English, and to evaluate explanations critically. The uses and abuses of language and argument among contentious, prejudiced, and superstitious people. Reasoning and writing about unusual natural phenomena, public policy decisions, and other topics of interest. Does not satisfy the philosophy core requirement. Does satisfy the English writing requirement. I II (4)

125 MORAL PHILOSOPHY

Major moral systems of Western civilization; intensive examination of some contemporary moral theories; critical application to selected moral problems. I II (4)

225 ETHICAL THEORY

Examination of major moral systems of Western civilization and some contemporary ethical theories. Must be taken concurrently with or before 325, 326, 328, or 385-I, II, III, IV in order to use those courses for the philosophy core requirement. I II (2)

226 MORAL PROBLEMS

Critical application of major historic and contemporary ethical theories to a broad range of selected moral problems. For philosophy core requirement only when paired with 225. II (2)

233 INTRODUCTION TO LOGIC

A study of the principles of argument and proof using both natural deduction and axiomatic approaches. An introduction to the use of first order logic in ordinary reasoning and cognitive disciplines, and to the properties of formal systems such as consistency and completeness. Includes an introduction to inductive inference. Does not satisfy philosophy core requirement. I (4)

324 PHILOSOPHICAL ANALYSIS OF SOCIAL PROBLEMS

An examination of fundamental concepts of social thought; human nature, society, authority, community, liberty, equality, justice. Application of these concepts in a discussion of contemporary social institutions and their problems: war, racism, poverty, crime. a/y (4)

325 BUSINESS ETHICS

An examination, in the context of various ethical theories, of the moral values implicit and explicit in the free enterprise system; an assessment of some particular moral problems confronted in employer-employee relations, advertising, managerial decisions, and corporate social responsibilities. For philosophy core requirement only when paired with 225. I (2)

326 MORAL PROBLEMS IN THE SOCIAL SERVICES

An examination of governmental social services in relation to moral justice, moral rights, and human well-being; particular issues such as abortion, suicide, affirmative action, welfare rights, and counseling methods. For philosophy core requirement only when paired with 225. II a/y (2)

328 PHILOSOPHICAL ISSUES IN THE LAW

An examination of various philosophical issues in law using actual cases as well as the writings of legal scholars and philosophers. Topics include freedom of speech, contract law, sentencing practices, tort liability, and various criminal law defenses. Philosophical themes include natural law and legal positivism, and moral reasoning about individual rights. For philosophy core requirement only when paired with 225. I (4)

331 ANCIENT PHILOSOPHY

The development of philosophical thought and method from the Presocratic period to the end of the fourth century A.D. Special emphasis is given to the philosophies of Plato and Aristotle. I a/y (4)

332 MEDIEVAL PHILOSOPHY

The development of philosophy from Augustine to Ockham. Scrutiny of the sources and nature of the Thomistic synthesis, and the reaction to it in the work of Duns Scotus and William Ockham. I a/y (4)

333 MODERN PHILOSOPHY

The development of philosophy from the seventeenth through the early nineteenth centuries; continental rationalism, British empiricism, and German idealism; Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, Kant, Fichte, Schopenhauer, and Hegel. II a/y (4)

335 CONTEMPORARY PHILOSOPHY

The development of philosophy from the late nineteenth century to the present; may include pragmatism, empiricism, process philosophy, existentialism and analysis as developed by Mill, James, Dewey, Whitehead, Sartre, Russell, Ayer, and Wittgenstein. II a/y (4)

341 PHILOSOPHY OF MATHEMATICS: SET THEORY

A study of the historical development and basic concepts of set theory and the foundations of mathematics. The relationship of logic and set theory to the basic concepts of number and infinity; the philosophical implications of this relationship. Set theoretical paradoxes and proposed solutions. Prerequisite: MATH 128 or higher math course. Counts 2 hours toward philosophy core requirement when taken in addition to 225 or 233. II a/y (2)

342 PHILOSOPHY OF MATHEMATICS: GÖDEL AND TRUTH

A study of the traditional accounts of the nature of mathematical entities and mathematical truth according to logicism, formalism, and intuitionism. A study of Gödel's Incompleteness Proof and its significance for these accounts. Prerequisite: 233 or consent of instructor. Counts 2 hours toward philosophy core requirement when taken in addition to 225 or 233. II a/y (2)

343 PHILOSOPHY OF LOGICS

A study of metalogic, including the properties of first order logic. The philosophical issues raised by different systems of logic including modal logics, second order logics, quantum logics, and other many-valued logics. Prerequisite: 233 or consent of instructor. Counts 2 hours toward philosophy core requirement when taken in addition to 225 or 233. II a/y (2)



P

School of Physical Education



365 KIERKEGAARD AND EXISTENTIALISM
Modern existentialism, its main themes, and their relation to other philosophical traditions; its impact on such fields as theology, literature and psychology. Life and thought of two key figures: Soren Kierkegaard and Jean-Paul Sartre; related thinkers including Nietzsche, Heidegger, Jaspers, Tillich, Buber, Camus, and Marcel. I a/y (4)

371 AESTHETICS
Analysis of the aesthetic experience and its relationship to the fine arts, literature, science, and morality; the criteria and concepts employed in artistic expression and aesthetic evaluation. II a/y (4)

381 THEORY OF VALUE
The nature of human values, contemporary discussion concerning the subjective or objective, absolute or relative character of such values as the good and the right, the beautiful and the holy; the origin of values, their place in a world of fact, human knowledge of them, the character and use of the language of evaluation. II a/y (4)

**385-I HEALTH CARE ETHICS:
INFORMED CONSENT**
The underlying reasons for the legal and moral requirement to obtain the informed consent of the patient before treating; special considerations in therapeutic and research settings; the requirement for special groups, e.g., prisoners and the mentally incompetent. Not for philosophy core requirement unless paired with 225. I (1)

**385-II HEALTH CARE ETHICS:
CHOOSING DEATH**
The kinds of value we place on life; the relation of the informed consent requirement to an alleged right of adult patients to die; the criteria for determining when death occurs; the problematic notions of a "natural death," "ordinary" and "extraordinary" medical means, and active "killing" and passive "letting die." Not for philosophy core requirement unless paired with 225. I (1)

**385-III HEALTH CARE ETHICS:
INFANTS AND CHILDREN**
The special problems of consent and value of life which arise in treating the young. Treating the fetus; selecting the sex of children; letting defective newborns die; the consent requirement in clinical research on children. Not for philosophy core requirement unless paired with 225. Interim or II (1)

**385-IV HEALTH CARE ETHICS:
DISTRIBUTING SCARCE RESOURCES**
How health care should be distributed. What we mean by equality when people have widely differing needs; the meaning and justification of a 'right' to health care; how to determine the value of life, and health insurance; dilemmas between preventive and curative care; how to allocate scarce, life-saving resources. Not for philosophy core requirement unless paired with 225. II (1)

393 PHILOSOPHY OF RELIGION
Classical and contemporary views of traditional religious problems: the existence of God, religious experience, revelation, immortality, and others. II (4)

395 PHILOSOPHY OF SCIENCE
The general character, fundamental concepts, methods, and significance of modern science; some attention to specific areas of science: physical, biological, social: the implications of science and scientific methodology for ethical, aesthetic, and religious values. I a/y (4)

435 ADVANCED SEMINAR IN PHILOSOPHY
Topic to be announced at the time the course is offered, normally some aspect of contemporary philosophy. Prerequisite: consent of instructor. (4)

**491, 492 INDEPENDENT READING AND
RESEARCH**
Prerequisite: departmental consent. I II (1-4)

493 SENIOR RESEARCH SEMINAR
The writing of a senior thesis and taking of a comprehensive senior examination. The work on the thesis constitutes two-thirds of the course; the exam, one-third. Each spring all students in the seminar will meet periodically to discuss their thesis projects and present their final papers to each other. Final copy of thesis due May 1; examination to be taken May 10. For philosophy majors only. Prerequisite: at least 4 courses in philosophy. I II (4)

School of Physical Education

The university's physical education program seeks to ingrain in each student a fundamental respect for the role of physical activity in living.

Instruction is offered in approximately 30 different physical education activities. The activity program is uniquely characterized by a timely response to student interests in recreational opportunities available in the Pacific Northwest.

The school's professional programs prepare prospective leaders for careers in physical education, health, recreation, athletics, and therapeutics.

Outstanding modern sports facilities include an all-weather 400 meter track, an Olympic-style swimming pool, six lighted tennis courts, a nine-hole golf course, two gymnasiums, racquetball and squash courts, a new fitness center, and an all-purpose astro-turf field house.

FACULTY

D. Olson, *Dean*; Chase, Hacker, Hemion, Hoseth, Lundgaard, Moore, Officer, M. Seal, F. Westering; assisted by Benson, Campbell, Carter, Haroldson, Johnson, Kapala, Kittilsby, Nicholson, Phillips, Poppen, Ryan, M. Swenson, S. Westering.

UNIVERSITY REQUIREMENT: Four one-hour courses (100-259), including 100, are required for graduation. Eight one-hour activity courses may be counted toward graduation. Students are encouraged to select a variety of activities at appropriate skill levels. All physical education activity courses are graded on the basis of "A," "Pass," or "Fail" and are taught on a coeducational basis.

BACHELOR OF SCIENCE MAJOR: 68-70 hours, including completion of program core requirements and one of two concentrations. **Core Requirements:** Chemistry 104, 105 (or 105, 115), Biology 155, 156, 205, 206, Physical Education 277, 360 (2 hours), 481, 482, and 485.

Exercise Science Concentration: 34 hours, including Physical Education 329, 399, 478, Health Education 292, Math 133, Computer Science 144, Biology 253, Psychology 221, 335.

Pre-Therapy Concentration: 36 hours, including Health Education 281, 283, Physical Education 399, Biology 201 or 253, Math 133 or Statistics 231, Computer Science 144, Physics 125, 126, and 4 hours of electives in psychology, as approved by concentration adviser.

BACHELOR OF ARTS (RECREATION) MAJOR: 46-54 hours, including completion of program core requirements and one of three concentrations. **Core Requirements:** Physical Education 277, 287, Recreation 330, 399, 483, Business Administration 281, and Psychology 335.

Administration Concentration: 16 hours, including Business Administration 241, 350, 354, and Computer Science 220.

Programming Concentration: Physical Education 285, 322, 329, Health Education 425, and Art 215, plus 6 hours of electives approved by program coordinator.

Therapeutic Concentration: 24 hours, including Biology 205, 206, Physical Education 329, 334, 478, 482, Recreation 340 and Special Education 296, plus 2 hours of electives in special education approved by program coordinator.

B.A. IN EDUCATION—SECONDARY SCHOOL PHYSICAL EDUCATION TEACHING MAJOR (44 hours): Required: Physical Education 277, 282, 283, 285, 286, 328, 329, 478, 481, 482, 484, and 485; Biology 205 and 206. Electives: 2 hours in physical education approved by major adviser.

For K-12 certification students must also take Physical Education 322 and 360 in addition to meeting requirements as set forth by the School of Education.

B.A. IN EDUCATION—ELEMENTARY SCHOOL PHYSICAL EDUCATION TEACHING MAJOR (24 hours): The following courses are required: Physical Education 282, 283, 286, 322, 329, 334, and 6 hours of electives in physical education approved by major adviser. In addition, students must meet requirements as set forth by the School of Education.

SECONDARY SCHOOL TEACHING MINOR (19 hours): The following courses are required: Physical Education 283, 285 or 286, 328, 334, 478, and 2 hours of electives in physical education approved by major adviser.

ELEMENTARY SCHOOL TEACHING MINOR (12 hours): Physical Education 282, 283, 286, and 322.

ELEMENTARY SCHOOL PHYSICAL EDUCATION SPECIALIST (40 hours): The following courses are required: Physical Education 277, 282, 283, 286, 322, 329, 360, 478, 481, 482, 484, 485, and Biology 205-206.

AQUATICS MINOR (18 hours): Required: Physical Education 275, 331, 375, 399, Health Education 292, and Business Administration 281, plus 2 hours of electives approved by the aquatics director.

COACHING MINOR (18 hours): Required: Physical Education 334, 410, 485, and Health Education 281. Electives: 10 hours, including at least one course in coaching theory, from among the following: Health Education 292 (required for non-education majors), Physical Education 308, 361, 370, 371, 372, 374, 375, 376, 377, 378, and 478. Interim and summer courses may be included as electives with the approval of the dean.

DANCE MINOR (19 hours): Required: Physical Education 242, 243, 244, 250, 282, 362, and 462. Electives: 8 hours from among the following: Physical Education 310, 360, 401, 491, Communication Arts 356, Music 247 and 249. Interim and summer courses may be included as electives with the approval of the dance coordinator.

HEALTH EDUCATION MINOR (18 hours): Required: Health Education 260, 270, 292, 295, 321, 323, 326, and 4 hours of electives with the approval of the health coordinator.

SPORTS MEDICINE (Specialization—26 hours): Required: (1) A teaching major with the Professional Education Sequence and completion of all requirements for the Provisional Certificate. (2) Biology 205 and 206, Health Education 260, 281, 382, and 4 hours of electives in health education, Physical Education 313, 329, 399, 481, and 482. (3) 800 hours of clinical experience, which may include a practicum or internship.

SPORTS ADMINISTRATION (Specialization—20 hours): Required: Completion of a major in business administration, economics, or communication arts; Physical Education 328 or Recreation 483, Physical Education 302, 399, 410, and Health Education 292.

COURSE OFFERINGS

Courses in the School of Physical Education are offered in the following areas:

HEALTH EDUCATION

- 260 FOOD AND HEALTH
- 270 STRESS WITHOUT DISTRESS
- 281 INJURY PREVENTION AND THERAPEUTIC CARE
- 292 FIRST AID
- 295 SCHOOL HEALTH
- 321 FAMILY LIFE AND SEX EDUCATION
- 323 EMOTIONAL HEALTH/DISEASE PREVENTION
- 326 COMMUNITY HEALTH
- 382 INJURY PREVENTION—ADVANCED
- 485 HEALTH PROMOTION/WELLNESS INTERVENTION STRATEGIES

RECREATION

- 330 RECREATION PROGRAMMING
- 340 THERAPEUTIC RECREATION PROGRAMMING
- 483 RECREATION ADMINISTRATION

PHYSICAL EDUCATION

- 275 WATER SAFETY INSTRUCTION
- 277 FOUNDATIONS OF PHYSICAL EDUCATION
- 282 TEACHING METHODS: DANCE
- 283 TEACHING METHODS: GYMNASTICS
- 285 TEACHING METHODS: INDIVIDUAL AND DUAL SPORTS
- 286 TEACHING METHODS: TEAM SPORTS
- 287 TEACHING METHODS: RECREATION ACTIVITIES
- 322 PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL
- 328 CURRICULUM DEVELOPMENT AND ADMINISTRATION
- 329 ADAPTED PHYSICAL EDUCATION
- 331 AQUATICS MANAGEMENT
- 332 OFFICIATING
- 334 SCIENTIFIC BASIS FOR TRAINING
- 360, 361 PROFESSIONAL PRACTICUM, COACHING PRACTICUM
- 362 MUSIC RESOURCES FOR DANCE
- 370-379 COACHING THEORY
- 399 INTERNSHIP
- 401 WORKSHOP
- 410 COACHING—THE PERSON AND THE PROFESSION
- 462 DANCE PRODUCTION
- 478 MOTOR LEARNING AND HUMAN PERFORMANCE

P

School of Physical Education



P

School of Physical Education

- 481 EXERCISE PHYSIOLOGY
 482 ANATOMICAL KINESIOLOGY
 484 MEASUREMENT AND EVALUATION
 IN PHYSICAL EDUCATION
 485 BIOMECHANICS
 491 INDEPENDENT STUDY
 501 GRADUATE WORKSHOPS
 597 GRADUATE RESEARCH

100 PERSONALIZED FITNESS PROGRAMS

To stimulate student interest in functional personally designed programs of physical activity; assessment of physical condition and skills; recommendation of specific programs for maintaining and improving physical health. Should be taken as a freshman. I II (1)

150 ADAPTIVE PHYSICAL ACTIVITY

200-229 INDIVIDUAL AND DUAL ACTIVITIES

201 (Beginning Golf), 202 (Intermediate and Advanced Golf), 203 (Archery), 204 (Bowling), 207 (Beginning Gymnastics), 208 (Skiing), 209 (Intermediate Gymnastics), 210W (Slimnastics), 211 (Beginning Badminton), 212 (Intermediate Badminton), 213 (Personal Defense), 214 (Beginning Tennis), 215 (Intermediate Tennis), 216 (Beginning Ice Skating), 218 (Backpacking), 219 (Canoeing), 221 (Roller Skating), 222 (Squash and Racquetball), 225 (Aerobics), 227 (Weight Training), 228 (Basic Mountaineering), 229 (Equitation). (1)

230-239 AQUATICS

230 (Beginning Swimming), 231 (Intermediate Swimming), 232 (Advanced Swimming), 234 (Advanced Life Saving), 236 (Synchronized Swimming), 237 (Skin and Scuba Diving). (1)

240-249 RHYTHMS

240 (Beginning Modern Dance), 242 (Intermediate Modern Dance), 243 (Advanced Modern Dance), 244 (Folk and Social Dance), 246 (Beginning Jazz Dance), 247 (Intermediate Jazz Dance). (1)

250-259 TEAM ACTIVITIES

250 (Directed Sports Participation), 251 (Volleyball and Field Hockey), 252 (Basketball and Softball), 253 (Soccer and Volleyball). (1)

260 FOOD AND HEALTH

A study of the basic requirements necessary to maintain optimal health through wise food choices. Topics of discussion include nutrients and their metabolism, dietary guidelines, food fadism, labeling, additives, vegetarianism, obesity, nutrition-related diseases, nutrition during pregnancy, and nutrition for athletes. (1)

270 STRESS WITHOUT DISTRESS

Consideration of stress, what people should know about stress, how to reduce the harmful effects of stress, and the relationship of increased stress to disease problems. (1)

275 WATER SAFETY INSTRUCTION

The American Red Cross Water Safety Instructor's Course. Prerequisite: 234. II (2)

277 FOUNDATIONS OF PHYSICAL EDUCATION

The relationship of physical education to education; the biological, sociological, psychological, and mechanical principles underlying physical education and athletics. Should be the initial professional course taken in the School of Physical Education. II (2)

281 INJURY PREVENTION AND THERAPEUTIC CARE

Prevention, treatment, and rehabilitation of all common injuries sustained in athletics; physical therapy by employment of electricity, massage, exercise, light, ice, and mechanical devices. I (2)

282 TEACHING METHODS: DANCE

Planning, teaching, and evaluating dance. Encompasses specific movement education activities, conditioning exercises, and the development of modern, social, and folk dance skill for elementary school age and older. Prerequisite: intermediate skill level or completion of a beginning activity course, 277. II a/y (3)

283 TEACHING METHODS: GYMNASTICS

Includes skill development, teaching expertise, course planning, and safety techniques in gymnastics. The course is designed for both elementary and high school ages. Prerequisite: intermediate skill level or completion of a beginning activity course, 277. I (3)

285 TEACHING METHODS: INDIVIDUAL AND DUAL SPORTS

Planning, teaching, and evaluating these activities: tennis, badminton, track and field. Prerequisite: intermediate skill level or completion of a beginning activity course, 277. I (4)

286 TEACHING METHODS: TEAM SPORTS

Planning, teaching, and evaluating these team activities: basketball, soccer, volleyball, rugby, field hockey, softball, touch football, team handball. (4)

287 TEACHING METHODS: RECREATION ACTIVITIES

Planning, teaching, and evaluating the following: archery, bowling, golf, outdoor education, and various recreational sports. Prerequisite: 277. II (4)

292 FIRST AID

This course meets requirements for the American Red Cross Standard First Aid and Personal Safety. II (2)

321 FAMILY LIFE AND SEX EDUCATION

A study of anatomy and physiology, sexual roles, reproduction, responsible relationships, respect for self and others, and physical and emotional well-being. Stress on responsible decision making concerning sexuality by providing accurate information and a variety of personal coping skills and by emphasizing a positive self-concept. Evaluation of school curriculum models. (2)

322 PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL

Organization and administration of a developmental program for grades K-6; sequential and progressive programming; large repertoire of activities. 277 is recommended. I (2 or 4)

323 EMOTIONAL HEALTH/DISEASE PREVENTION

Topics include interpersonal communication, cooperation, valuing, techniques leading toward a healthier lifestyle through preventive medicine, substance abuse (alcohol, tobacco, caffeine, and other drugs), and related disease problems. (2)

326 COMMUNITY HEALTH

Organizations associated with public health and their implications for community health problems. Primarily designed for health education minor students. II a/y (4)

328 CURRICULUM DEVELOPMENT AND ADMINISTRATION

Organization and administration of physical education and athletics (7-12); curriculum development implementation. Prerequisite: 277. I (4)

329 ADAPTED PHYSICAL EDUCATION

The study of physical education for people with metabolic, neurologic, cardiac, respiratory, and emotional abnormalities. (2)

330 RECREATION PROGRAMMING

Supervising and administering recreational programs for the school or community. I (4)

331 AQUATICS MANAGEMENT

Topics include training and supervising personnel, financing, programming, pool maintenance and operation, swim meet management, and safety and emergency procedures. Study of pool chemistry, filter operations, and maintenance. Visitation to local pools. (2)

332 OFFICIATING

Rules and officiating techniques of volleyball, basketball; designed to train qualified officials. Recommended as an elective for majors and minors. I a/y (2)

334 SCIENTIFIC BASIS FOR TRAINING

Presents physiologic and kinesiology applications to physical training. Topics include the development of muscular strength and endurance, and the relationship of nutrition, environment, sex, age, and ergogenic aids to athletic performance. Prerequisite: 277. I (2)



340 THERAPEUTIC RECREATION PROGRAMMING

Awareness and potentiality of leisure needs of the temporarily or permanently handicapped. Adaptation of recreation activities to provide opportunities for success and satisfaction by the handicapped. Study of leadership techniques and programming methods. (2)

360, 361 PROFESSIONAL PRACTICUM, COACHING PRACTICUM

Assistant coaching teaching experiences; planning and conducting intercollegiate athletics and physical education instruction; students work under supervision of the head coach or physical education instructors. Prerequisite: one course in professional activities, departmental approval. I II (2)

362 MUSIC RESOURCES FOR DANCE

Understanding of elementary rhythm techniques. Practical learning skills for accompaniment for dance classes. Effective uses of existing music and the creation of sound scores for choreography. (2)

370-379 COACHING THEORY

Techniques, systems, training methods, strategy, and psychology of coaching; 370 (Basketball), 371 (Football), 372 (Cross Country/Track and Field), 375 (Swimming), 376 (Volleyball) 377 (Tennis), 378 (Softball/Baseball), 379 (Soccer). I II a/y; (2)

382 INJURY PREVENTION—ADVANCED

An advanced study in the recognition and treatment of specific athletic injuries and vulnerable body structures, with emphasis on evaluation, modalities of treatment, rehabilitation, and current issues. Prerequisite: 281. (2)

399 INTERNSHIP

Experiences closely assigned to student's career and academic interests. Student identifies problems to be researched, experiences to be gained, and readings pertaining to this interest. An approved firm or organization is mutually agreed upon by the student and the coordinator of this program. Monthly progress reports, evaluations by the supervisor, and other measures of achievement are used to determine the grade. Prerequisites: declaration of major, at least sophomore status, and completion of at least 10 hours in the major. (4-8)

401 WORKSHOP

Workshops in special fields for varying periods. (1-4)

410 COACHING—THE PERSON AND THE PROFESSION

Personal and professional requisites of successful sports programs, including coaching styles, development of leadership qualities, recruiting methods, development of a philosophy of athletics, organization of pre-/in-/and post-season programs, award systems, and program evaluation. Consideration of relationships with staff, parents, players, faculty, administration, and media. Budgeting, purchase of equipment and maintenance, and facility planning and usage. (2)

425 HEALTH PROMOTION AND WELLNESS INTERVENTION STRATEGIES

Examination of strategies for improving the state of wellness through the healthier lifestyles. Topics include the holistic approach to health, behavioral intervention, nutrition and weight control strategies, health-related fitness, strategies to improve adherence to a fitness program, and the cost-effectiveness of health programs in business and industry. Includes computerized assessments; appraisals of health risks; prescriptions for nutrition, health, and activity; and a monitoring system and weight management program. (2)

462 DANCE PRODUCTION

An advanced choreography course combining choreography, costume design, staging, and publicity techniques for producing a major dance concert. Prerequisite: 310 or consent of instructor. (2)

478 MOTOR LEARNING AND HUMAN PERFORMANCE

Provides basic theories, research, and practical implications for motor learning, motor control, and variables affecting skill acquisition. I (4)

481 EXERCISE PHYSIOLOGY

Scientific basis for training and physiological effect of exercise on the human body. Prerequisite: BIOL 205-206. I (2)

482 ANATOMICAL KINESIOLOGY

Deals with the structural and mechanical function of the musculoskeletal system. The kinesiological applications of anatomical information are given prime consideration. Prerequisite: BIOL 205-206. II (2)

483 RECREATION ADMINISTRATION

The organization, management, and direction of recreational services: legal basis, administrative procedures, financial aspects, personnel management, facilities, and internal organization. II (4)

484 MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION

The selection, construction, and interpretation of evaluation techniques related to the physical education program. II a/y (2)

485 BIOMECHANICS

An application of physical laws to sports activities. Principles of motion, force, and equilibrium are stressed. Analyses of various sports skills are made. II (2)

491 INDEPENDENT STUDY

Prerequisite: consent of the dean. I II S (1-4)

501 WORKSHOPS

Graduate workshops in special fields for varying periods. (1-4)

597 GRADUATE RESEARCH

Open to graduate students whose minor is in the field of physical education. Prerequisite: consent of the instructor. I II S (1-4)

P

School of Physical Education



P Physics and Engineering

Physics and Engineering

While physics searches out the fundamental natural laws which govern the universe and forms the cornerstone of other scientific disciplines, engineering makes use of the knowledge of basic science to provide an improved quality of life. As our society becomes increasingly dependent upon technology, the value of an education in science and engineering can only increase.

The Department of Physics and Engineering offers a combination of programs in both basic and applied science. The physics curriculum addresses the breadth of the discipline, emphasizing the process of science and illuminating the basic concepts within its view of nature. The engineering program provides an education of sufficiently fundamental nature to permit rapid adaptation to new technical problems and opportunities and sufficiently broad liberal scope to provide awareness of the social responsibilities implicit in engineering.

The department maintains degree programs in physics, engineering physics, and 3-2 engineering science, a dual degree program with the School of Engineering and Applied Science of Columbia University and Stanford University. Concentrations in electrical and mechanical engineering science are available. An electrical engineering minor is also offered, primarily intended for majors in physics or computer science.

FACULTY

Haueisen, Chair; Adams, Clark, Greenwood, Nornes, Tang.

Students intending to major in the department are advised early to take note of the interrelationships between the career fields of science (physics), engineering, and technology (also called engineering-technology). Scientists are motivated by raw curiosity. They ask the "why" questions and strive to answer them; their concern is with the natural world. Pure science is dedicated to acquiring new knowledge, which may in itself have no immediate application. Engineering is basically concerned with using scientific knowledge for the benefit and comfort of people. While science, particularly physics, deals with the natural world, engineering focuses upon the world constructed by people. Mathematics is the language of communication in both physics and engineering. Without scientists, engineers would have no accumulated storehouse of scientific knowledge from which to draw in creating engineering designs, and without engineers scientific knowledge would seldom be applied to solve practical problems. Engineers take the insights, facts, and formulas discovered by scientists and use them in inventing designs to solve problems posed in the context of our socio-economic-technical society. PLU has degree programs in scientific fields as well as programs in engineering. However, PLU has no academic program in engineering-technology, a career field concerned with hands-on aspects of routine testing, construction, and maintenance of hardware designed by engineers.

PHYSICS

The physics major offers a challenging program emphasizing a low student-teacher ratio and the opportunity to engage in independent research projects. There are two introductory course sequences, *College Physics* and *General Physics*. These differ in the level of mathematics required with *General Physics*, which incorporates calculus, usually involving a more comprehensive analysis. *General Physics* is required for Bachelor of Science majors and usually for Bachelor of Arts majors as well.

The curriculum includes *Musical Acoustics*, a course specially designed for music majors as well as other interested students, and *Teaching of Physics* for students seeking the Bachelor of Arts in Education with a major in physics.

BACHELOR OF SCIENCE MAJOR: 32 semester hours: 147, 148, 153, 154, 223, 331, 332, 336, 356, 421, 422. 497-498 may be substituted for 421-422 with consent of the department. It is recommended that pre-Ph.D. students take 401 and 406. Consult the department for specific recommendations.

Required supporting courses: Math 151, 152, 253; Engineering 354; Chemistry 115; plus either Chemistry 341 or Engineering 351.

A typical B.S. physics major program is as follows:

Freshman	Physics 153, 154 Physics 147, 148 Math 151, 152
Sophomore	Physics 223, 336 Math 253 Engineering 354
Junior	Physics 331, 332 Engineering 351 or Chemistry 341 Physics 356
Senior	Physics 421, 422 *Physics 401, 406

*Optional

BACHELOR OF ARTS MAJOR: 24 semester hours: 147, 148, 153, 154, 223, plus ten semester hours. Under special circumstances 125-126 may be substituted for the 153-154 sequence, upon consent of the department. Additional courses may be desirable, depending on the student's objectives. Consult the department for specific recommendations.

Required supporting courses: Math 151, 152.

MINOR: 22 semester hours, including 147, 148, 153, 154 (or 125, 126); three additional courses, of which at least two must be upper division.

ENGINEERING

A smaller university like PLU is uniquely suited to foster a student's personal development while making a firm but not premature commitment to professional and career goals. Such a setting also helps a student to clarify the social context in which engineers function. A major school of engineering like Columbia or Stanford emphasizes advanced studies, research, and interaction with industry. Thus, PLU's 3-2 program gives students the best of two settings—breadth at PLU and depth in an engineering specialty at Columbia or Stanford. Students have also been involved in 3-2 programs at the University of Washington or other state universities in the Pacific Northwest.

During the first three years of this program students must complete 1) all general university core requirements, 2) two



interims, 3) all basic science and mathematics requirements, and 4) seven courses in engineering. Once a clear sense of direction within an engineering specialty is gained, a recommendation to Columbia or Stanford may be granted. Admission to Columbia is automatic upon recommendation; admission to Stanford, however, is competitive. Details of transfer admission are made available in the fall of the third year. Normally two additional years are necessary to finish engineering specialty courses at Columbia or Stanford.

Regardless of eventual specialty, both Engineering 231 *Statics* and 271 *Electrical Circuits* should be taken. These should be followed by 232 *Mechanics of Solids* for students in the mechanical engineering concentration or by 272 *Solid State Electronic Devices* for those with interest in electrical engineering. The natural sciences core requirement is automatically satisfied by engineering students as is the second part of option II of the foreign language requirement in the College of Arts and Sciences. Unless they automatically qualify for fulfilling option I of the foreign language requirement on the basis of their high school work, students are encouraged to satisfy this requirement by means of option II. Hours freed by satisfaction of the foreign language requirement on the basis of high school work may profitably be used for taking another core requirement (e.g., arts/literature or social sciences), for taking mathematics beyond calculus, or for taking additional courses in computer science.

Particular attention should be given to the Integrated Studies Program, known as Core II, and to its applicability for engineers in our technological society.

Students with strong preparation (A's and B's) in high school mathematics at least through trigonometry/functions as well as in science through physics and with SAT math scores no lower than 550 should schedule their classes as indicated below. Students interested in chemical engineering in the 3-2 program should replace Physics 153-154 (and labs, 147-148) with Chemistry 115-116 in their first year. Those with less adequate preparation in mathematics and sciences, particularly mathematics, should consider strengthening their background with community college work in the summer before enrollment at PLU and should postpone the physics sequence until their second year. An appropriate first year schedule then includes: Fall—EGR 150 *Introduction to Engineering*, MATH 151 *Calculus*, CHEM 115 *Chemistry*, a general university core requirement, and PE 100 or a PE activity course; Spring—EGR 151 *Visual Thinking*, MATH 152 *Calculus*, CSCI 110 *BASIC*, a core requirement, and a physical education activity course (or PE 100).

3-2 DUAL DEGREE: Dual B.S. degrees from PLU and Columbia, Stanford, or other ABET accredited Engineering School: three full-time years at PLU plus 2 additional full-time years at Columbia or Stanford. PLU B.S. in Engineering-Science is granted after first year at Columbia or Stanford; B.S. in Engineering Specialty (E.E., M.E., etc.) granted by Columbia or Stanford at the end of fifth year.

REQUIRED COURSES: Physics 147, 148, 153, 154, 223; Engineering 150, 151, 354, 382 plus three courses of engineering specialty from Electrical—271, 272, 352, 362 and Mechanical—231, 232, 351, 442. Required supporting courses: Math 151, 152, 253; Computer Science 240; Chemistry 115. Chemistry 116 is recommended.

A typical 3-2 engineering science program is as follows:

Freshman	Engineering 150, 151 Physics 147, 148, 153, 154 Math 151, 152
Sophomore	Engineering 231, 232 or Engineering 271, 272 Engineering 354 Physics 223 Math 253 Computer Science 240
Junior	Engineering 271 or Engineering 231 Engineering 382 Chemistry 115

ELECTRICAL ENGINEERING MINOR: 20 semester hours: 150, 151, 271, 272, 352, 354 and 362. Required supporting courses: Introductory sequence in Physics (2 semesters) and Calculus (3 semesters) and Computer Science 144 and 280.

ENGINEERING PHYSICS

The department offers a four-year engineering degree for students interested in an engineering related program that includes a substantial amount of basic science. It is more applied

than a physics degree while at the same time more theoretical than the usual engineering degree. The B.S. degree in engineering physics prepares students for employment in many diverse industries or directly for graduate study in nearly all fields of engineering. Strength may be built in electrical or mechanical engineering sciences by careful selection of upper division courses. Students are urged to develop a minor in either mathematics or computer science, particularly if aspiration to graduate study in engineering is part of their career plan. A minor in business administration

is particularly appropriate for working in industry immediately after graduation. For maximum flexibility in upper division courses, students aspiring to the engineering physics degree should schedule their first two years identically to those for dual degree 3-2 engineering. Junior and senior year schedules are determined by upper division requirements and by students' objectives.

B.S. DEGREE IN ENGINEERING PHYSICS: 48 semester hours: Physics 147, 148, 153, 154, 223, 331, 356, 421, 422; Engineering 150, 151, 354, 382 plus four courses of engineering specialty, one of which must be an upper division course, from Electrical—271, 272, 352, 362 and Mechanical—231, 232, 351, 442. Physics 336 may be substituted for Engineering 232. Chemistry 341 may be substituted for Engineering 351. Required supporting courses: Math 151, 152, 253; Chemistry 115; Computer Science 240.

A typical engineering physics program is as follows:

Freshman	Physics 147, 148, 153, 154 Engineering 150, 151 Math 151, 152
Sophomore	Engineering 231, 232 or Engineering 271, 272 Engineering 354 Physics 223 Math 253
Junior	Engineering 351, 271 or Engineering 352, 231 Engineering 382 Physics 356 Computer Science 240
Senior	Physics 331, 421, 422 Chemistry 115

COURSE OFFERINGS— PHYSICS

125, 126 COLLEGE PHYSICS

This course provides an introduction to the fundamental topics of physics. It is a non-calculus sequence, involving only the use of trigonometry and college algebra. Concurrent registration in 147, 148 is required. I II (4, 4)

147, 148 INTRODUCTORY PHYSICS LABORATORY

Basic laboratory experiments are performed in conjunction with the General and College Physics sequences. Concurrent registration in 125, 126 or 153, 154 is required. I II (1)

153, 154 GENERAL PHYSICS

A calculus-level survey of the general fields of physics, including classical mechanics, thermodynamics, electricity and magnetism and optics. Concurrent registration in 147, 148 and prior or concurrent registration in MATH 151, 152 is required. I II (4, 4)

205 MUSICAL ACOUSTICS

A study of musical sound using physics methods: vibrating systems; simple harmonic motion; wave motion; complex waves; wave generation in musical instruments; physiology of hearing; architectural acoustics; electronic recording and reproduction. Laboratory and group tours. No prerequisite courses in either mathematics or physics are assumed. II (4)

223 ELEMENTARY MODERN PHYSICS

This course covers the various phenomena where classical methods of physics fail. Contemporary interpretations of these phenomena are developed at an elementary level. Prerequisite: 154 or 126 or consent of instructor. I (4)

272 SOLID STATE ELECTRONIC DEVICES

See Engineering 272.

P

Physics and Engineering



P

Physics and Engineering

331 ELECTROMAGNETIC THEORY

Electrostatics, dipole fields, fields in dielectric materials, electromagnetic induction, magnetic properties of matter, generation and propagation of electromagnetic waves with an emphasis on the relationship with physical optics. Prerequisite: 153, 154; corequisite: 356 or consent of instructor. I (4)

332 ELECTROMAGNETIC WAVES AND PHYSICAL OPTICS

A study of the generation and propagation of electromagnetic waves. The mathematical description and the physical understanding of electromagnetic radiation are discussed with an emphasis on its relationship with physical optics. Prerequisite: 331. II (4)

336 MECHANICS

Fundamental mechanics; mathematical formulation of physical problems; motion of particles in one, two, or three dimensions; motions of systems of particles; dynamics and statics of rigid bodies: moving coordinate systems; Lagrange's equations and Hamiltonian formulation of mechanics. Corequisite: 354 or consent of instructor. II (4)

351 THERMODYNAMICS

See Engineering 351.

354 ENGINEERING ANALYSIS

See Engineering 354.

355 TEACHING OF PHYSICS

New developments in secondary curriculum, teaching techniques, and teaching media in the physical sciences; counted toward a degree for only those students receiving certification. Offered only on demand. (4)

356 MATHEMATICAL PHYSICS

Boundary value problems, special functions, matrices and tensors, probability theory, eigenvalue problems, complex variables, contour integration, and their applications to physics. Continuation of EGR 354. I (4)

401 INTRODUCTION TO QUANTUM MECHANICS

The ideas and techniques of quantum mechanics are developed. Various quantum mechanical systems and phenomena are studied in order to demonstrate these ideas and techniques. I (4)

406 ADVANCED MODERN PHYSICS

Modern theories are used to describe topics of contemporary importance such as atomic and sub-atomic phenomena, plasmas, solids, and astrophysical events. The application of quantum mechanical techniques are emphasized when appropriate. Prerequisite: 401. II (4)

421, 422 ADVANCED LABORATORY I, II (1)

491, 492 INDEPENDENT STUDY (1-4)

497, 498 RESEARCH (1-4)

COURSE OFFERINGS— ENGINEERING

Courses in engineering are offered in the following areas:

ENGINEERING BASICS

150 INTRODUCTION TO ENGINEERING

151 VISUAL THINKING

354 ENGINEERING ANALYSIS

382 INTRODUCTION TO MATERIALS SCIENCE

ELECTRICAL ENGINEERING SCIENCE

271 INTRODUCTION TO ELECTRICAL CIRCUITS

272 SOLID STATE ELECTRONIC DEVICES

352 CIRCUITS I

362 DIGITAL ELECTRONICS

491 INDEPENDENT STUDY: ELECTRICAL ENGINEERING SCIENCE

MECHANICAL ENGINEERING SCIENCE

231 STATICS

232 MECHANICS OF SOLIDS

351 THERMODYNAMICS

442 TRANSPORT: MOMENTUM, ENERGY, AND MASS

492 INDEPENDENT STUDY: MECHANICAL ENGINEERING SCIENCE

150 INTRODUCTION TO ENGINEERING

An introduction to the engineering profession and development of basic skills important to the profession, including problem solving, engineering analysis, and engineering design. I (2).

151 VISUAL THINKING

Three-dimensional visualization, orthographic and isometric perspectives, relationship of visual graphic thinking to the creative process, preliminary design; of value to not only engineers but also the science major who must be able to think three dimensionally as demanded in mechanics or structural chemistry. Emphasis upon fluent and flexible idea production. II (2)

231 STATICS

Fundamental engineering statics using vector algebra; conditions for equilibrium, resultant force systems, centroid and center of gravity, methods of virtual work, friction. Prerequisite: PHYS 153. I (2)

232 MECHANICS OF SOLIDS

Mechanics of deformable solid bodies; deformation, stress, constitutive equations for elastic materials, thermoelasticity, tension, flexure, torsion, stability of equilibrium. Prerequisite: EGR 231. II (4)

271 INTRODUCTION TO ELECTRICAL CIRCUITS

Introduction to the fundamental concepts of DC circuits including Ohm's and Kirchoff's Laws and the function of inductive and capacitive elements. Prerequisite: PHYS 154. I (2)

272 SOLID STATE ELECTRONIC DEVICES

An introduction to the properties of semiconductors as related to electronic devices; diodes, transistors, FET's, operational amplifiers. Prerequisite: EGR 271. II (2)

351 THERMODYNAMICS

Concepts and equations of classical, macroscopic thermodynamics; thermodynamic cycles, flow and non-flow systems, properties and mathematical relations of pure substances, mixtures and solutions, phase transition and chemical reactions; an elementary treatment of statistical thermodynamics. Prerequisite: PHYS 154. I (4)

352 CIRCUITS I

Theory of AC circuits, amplifiers, and oscillators. Time domain transient response and sinusoidal frequency response. Prerequisite: EGR 272. I (4)

354 ENGINEERING ANALYSIS

Introduction to vector and tensor calculus, functions of a complex variable, Laplace and Fourier transforms, and undetermined multipliers. Comprehensive and illustrative examples from the fields of electromagnetism, waves, transport, vibrations, and mechanics. May be taken as a package with PHYS 356. Prerequisite: MATH 253. II (4)

362 DIGITAL ELECTRONICS

Analysis of digital design techniques, including a review of combinational logic, sequential logic, flip flops, registers, counters, and timing circuits. II (4)



382 INTRODUCTION TO MATERIALS SCIENCE

Fundamentals of engineering materials including metals, polymers, ceramics, and semiconductors. The course focuses on how the useful properties of these materials can be altered by changing their microstructure. Prerequisites: PHYS 154, CHEM 115. II (4)

442 TRANSPORT: MOMENTUM, ENERGY, AND MASS

Unifying concepts of the transport of momentum, energy, and mass in planar, cylindrical and spherical geometries; mathematical aspects of fluid mechanics; boundary layers; transport coefficients-viscosity, thermal conductivity, mass diffusivity; an elementary treatment of turbulent flow. Prerequisite: EGR 351 or consent of instructor. II (4)

491 INDEPENDENT STUDY: ELECTRICAL ENGINEERING SCIENCE

Selected topics of mutual interest to student and instructor. Enrollment is limited and open only to students who have discussed a proposed topic or course of study in considerable depth with instructor. Prerequisite: mutual interest (1-4)

492 INDEPENDENT STUDY: MECHANICAL ENGINEERING SCIENCE

See 491.

Political Science

P

Political Science

Political science addresses one of the most difficult, yet fundamentally important human endeavors, the governance of people and societies. The student of politics seeks to understand how governments are organized and structured, how political processes are employed, and the relationship of structures and processes to societal purposes. Recognizing that government and political activity may embody and reflect the full range of human values, the study of politics must endeavor to understand the realities of politics while at the same time asking how well political systems work, what purposes are and ought to be served, and what effects result from political phenomena. Political science encourages a critical understanding of government and politics in the belief that a knowledgeable, interested, and aware citizenry is the root strength and necessity of a democratic society.

FACULTY

Farmer, Chair; Atkinson, Olufs, Spencer, Ulbricht; assisted by Bricker, Rekdal.

The study of political science helps to prepare students for the exercise of their rights, duties, and opportunities as citizens by giving them a better understanding of American political processes and of alternative systems. Courses in political science explore various topics in American government and politics, international relations and foreign policy, comparative government and area studies, political philosophy and theory, and public policy and law. The department provides pre-professional training leading to careers in teaching, law, government, and related fields.

For the non-major, political science courses provide useful study for any student generally interested in public affairs and the workings of government. Moreover, the study of politics is supportive of any discipline or professional program whose substance becomes a matter of public policy. As such, political science complements such fields as the natural sciences, sociology, business, education, and economics. The study of politics touches upon other disciplines which inquire into human behavior and development, ranging from history and philosophy to psychology, communication, and cross-cultural studies.

Students of political science have the opportunity to combine the academic study of government and politics with practical experience by participation in one of the internship programs sponsored by the department. At present these are available in public administration, public law, and the legislative process.

The Department of Political Science is affiliated with several organizations providing for a variety of student involvement. These organizations include the Model United Nations, Center for the Study of Public Policy, and Political Science Student Association. The department further sponsors or otherwise encourages active student participation in political life through class activities and through such campus organizations as the Young Republicans and Young Democrats.

The political science faculty at Pacific Lutheran University share a breadth of experience in teaching and research, in professional associations and conferences in the United States and abroad, and in government decision making from the local to the international level.

There are no prerequisites for political science courses, except as noted. Prior consultation with the instructor of any advanced course is invited. Students wishing to pursue a major or minor in political science are requested to declare the major or minor with the department chair as soon as possible.

BACHELOR OF ARTS MAJOR: Minimum of 32 semester hours, including 101, 151, 325. Major programs are planned in consultation with a departmental adviser.

MINOR: Minimum of 20 semester hours including 101 or 151. Minor programs are planned in consultation with a departmental adviser.

MINOR IN PUBLIC AFFAIRS: 24 semester hours, including 345 (required) and 20 hours from political science, economics, sociology, and business administration or statistics.

This minor offers an interdisciplinary study designed to support many major programs whose content has implications for public affairs, and is particularly useful to students contemplating careers in public service or graduate study in public administration, public affairs, and related programs.

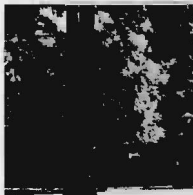
The Public Affairs minor includes the following requirements: 1) Political Science 345, Government and Public Policy; 2) at least 5 additional courses from three of the following groups (courses which are taken as part of a major program may not also count toward the Public Affairs minor):

Political Science (minimum of 8 hours if this group is selected)

- 151-American Government
- 348-Science, Technology, and Government
- 354-State and Local Government
- 363-Government, the Media, and Public Policy
- 364-The Legislative Process
- 457-Public Administration

Economics (minimum of 8 hours if this group is selected)

- 150-Principles of Economics
- 321-Labor Economics, Labor Relations, and Human Resources
- 362-Public Finance
- 371-Industrial Organization and Public Policy
- 432-Urban and Regional Economics



P

Political Science



Sociology (minimum of 4 hours if this group is selected)

- 240-Social Problems
- 280-Introduction to Race Relations
- 340-Crime and Delinquency
- 390-Social Inequality
- 460-Penology and Corrections

Business/Statistics (minimum of 4 hours if this group is selected)

- BA 281-Financial Accounting
- STAT 231-Introductory Statistics

On approval by the Public Affairs adviser, up to 8 hours may be earned through participation in an internship program as a substitute for courses listed above (except Political Science 345). Internship opportunities are offered through several departments and provide students with actual work experience in state and local legislative and administrative agencies. Students interested in internships are urged to consult with their academic advisers and with intern faculty advisers at an early date.

Students interested in the Public Affairs minor should declare the minor in the Department of Political Science and consult with the department's Public Affairs adviser.

MAJOR IN LEGAL STUDIES: 32 semester hours. For additional information, see the section of this catalog on Legal Studies.

MINOR IN LEGAL STUDIES: 20 semester hours. For additional information, see the section of this catalog on Legal Studies.

PRE-LAW: For information, see the section of this catalog on Pre-professional Programs.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

COURSE OFFERINGS

101 INTRODUCTION TO POLITICAL SCIENCE

An introduction to the major concepts, theories, ideas, and fields of study relating to politics and governmental systems. Explores governmental structures and processes, political power and authority, conflict, decision-making, policy, and stability and change. (4)

151 AMERICAN GOVERNMENT

A survey of the constitutional foundations of the American political system and of institutions, processes, and practices relating to participation, decision-making, and public policy in American national government. (4)

170 INTRODUCTION TO LEGAL STUDIES

An examination of the nature of law, judicial process, and participant roles in the legal system. Particular emphasis given to legal culture including comparative systems, assessments of legal needs and legal services, the legal profession, philosophy of law, and judicial decision-making. (4)

231 CURRENT INTERNATIONAL AFFAIRS

A survey course in international relations with emphasis on current events. Examination of ideology, economic resources and development, national rivalries, military power, revolutionary movements, population pressures, alliance politics, and multilateralism. Relation of these factors to international relations theory. (4)

325 POLITICAL THOUGHT

A survey of the origin and evolution of major political concepts in ancient, medieval, and early modern times. Such ideas as state, obligation, authority, community, law, and freedom will be studied developmentally. (4)

326 RECENT POLITICAL THOUGHT

A critical examination of the major ideologies of the modern world: democracy, conservatism, capitalism, socialism, anarcho-syndicalism, communism, racial and political elitism, nationalism, liberalism, Christian political thought, and contemporary problems. (4)

336 INTERNATIONAL ORGANIZATION AND LAW

Cooperation and conflict in international institutions. Issues before the United Nations and other international organizations. The role of international law in interstate relations. (4)

338 AMERICAN FOREIGN POLICY

The role of the United States in international affairs. An analysis of the major factors in the formulation and execution of United States foreign policy and its impact on other powers. (4)

345 GOVERNMENT AND PUBLIC POLICY

An integrated approach to the nature of public policy, with emphasis on substantive problems, the development of policy responses by political institutions, and the impacts of policies. Special attention to policy at the American national or sub-national levels, in international politics, or from a comparative perspective, as announced by the department. (4)

348 SCIENCE, TECHNOLOGY, AND GOVERNMENT

Examination of policy initiatives and responses to issues of modern science and technology. Influences of science and technology on political processes. Government as regulator, promoter, and consumer of science and technology. (4)

354 STATE AND LOCAL GOVERNMENT

Governmental structures, processes, and policy at the state, local, and regional levels of the American system. Special attention to intergovernmental relations and the role of the national government. (4)

361 AMERICAN POLITICAL PARTIES

An examination in theory and practice of American political parties and interest groups; special attention to party leadership and recruitment, individual political socialization and participation, electoral processes, and to the role of interest groups in American politics. (4)

363 GOVERNMENT, THE MEDIA, AND PUBLIC POLICY

Inquiry into the relationship between public will and public policy in America, concentrating on the pivotal role of electronic and print media. Examines media in contexts of opinion formation, expression, and effects. Attention to political culture, uses of public opinion polls, and governmental regulation, secrecy, and information management. (4)

364 THE LEGISLATIVE PROCESS

A study of theory, organization, and procedure of the Congress and other legislative bodies in the United States; special emphasis on the dynamics of conflict and compromise in the legislative arena including citizen and interest group participation and lobbying. (4)

368 THE AMERICAN PRESIDENCY

Study of the nation's highest political office in terms of the roles and expectations of the office, styles of leadership, Presidential decision-making, the powers and limitations and the interaction of personality and institution. (4)

371 JUDICIAL PROCESS

An examination of legal processes in various adjudicatory settings. Primary attention given to judicial processes focusing on civil and criminal law. Includes an examination of administrative law processes among other quasijudicial forms of conflict resolution. (4)

372 CONSTITUTIONAL LAW

The constitutional basis of governmental powers in the United States with special emphasis given to judicial review, separation of powers, federalism, and interstate commerce. Includes an examination of the political and constitutional restrictions on governmental power. (4)

373 CIVIL LIBERTIES

Constitutional rights and liberties with special attention given to freedom of expression and association, religious freedom, rights in criminal procedure, due process and equal protection. (4)

374 LEGAL RESEARCH

Introduction to various methods of legal analysis and research. Includes an examination of primary documents and research systems. (4)

P

Political Science

**381 COMPARATIVE LEGAL SYSTEMS**

A comparative examination of legal systems including common law, Roman law, and non-Western systems. a/y (4)

384 COMMUNIST POLITICAL SYSTEMS

Comparative examination of Marxist political systems, particularly the U.S.S.R., eastern Europe, China, and Cuba. Special attention given to ideology and to the role of the Communist Party. (4)

385 CANADIAN POLITICAL SYSTEM

The government and politics of Canada, with special attention to federalism, national unity, political culture, and constitutional development. Conditions permitting, the course will include a field trip to Victoria, provincial capital of British Columbia. (4)

386 AFRICAN POLITICAL SYSTEMS

Comparative examination of the political systems of sub-Saharan Africa. Exposition of pre-colonial, colonial, and contemporary influences with special attention to problems of decolonization, nation-building, and development. (4)

401 SEMINAR IN POLITICS

Selected topics in the study of government and politics as announced by the department. (4)

458 INTERNSHIP IN PUBLIC ADMINISTRATION

An internship with a department of local or state government; planned and supervised jointly by a supervising government official and a member of the political science faculty. By department consent only. (4-12)

464 INTERNSHIP IN THE LEGISLATIVE PROCESS

An opportunity to study the process from the inside by working directly with legislative participants at the state or local level. By department consent only. (Internships with the Washington State Legislature are open only to juniors and seniors with at least one year at PLU who have taken or take concurrently 364.) (4-12)

471 INTERNSHIP IN LEGAL STUDIES

An internship with a private or public sector agency or office engaged in legal research, litigation, or law enforcement. (4)

491, 492 INDEPENDENT READING AND RESEARCH

By department consent only. (1-4)

501 GRADUATE WORKSHOPS

Graduate workshops in special fields or areas for varying periods of time. (1-4)

520 POLICY AND PROGRAM ANALYSIS

Policy and program analysis guides decisions on whether specific programs should be modified, expanded, or dropped. The course emphasizes approaches to analysis, epistemological concerns, and techniques of model construction and analysis. (4)

540 OPERATIONS ANALYSIS IN GOVERNMENT

The purpose of the course is to develop skills in the management of government operation. Fulfillment of this purpose requires an exploration of the job of government managers, including sets of activities required to manage successfully in a public situation, and presentation and practice of techniques of operations management as they are modified to fit the public sector. (4)

553 PUBLIC PERSONNEL ADMINISTRATION

The course describes the major forces that affect public personnel matters today; introduces and provides practice in personnel work; and seeks to encourage and develop critical thinking in the world of work. (4)

557 PUBLIC ADMINISTRATION

Approaches and problems in the theory and practice of public administration, with attention to the applications in the administrative environment. (4)

558 GRADUATE INTERNSHIP

Practical experience through an internship in a public agency. (4)

567 PUBLIC BUDGETING PROCESS

An introduction to the major areas of budget preparation, analysis for budgeting, capital budgeting, financial management, and related issues. (4)

571 COURT ADMINISTRATION

An examination of the field of judicial administration. Focuses particularly on budgeting, personnel, information systems, court-calendaring, and other court management functions. (4)

590 GRADUATE SEMINAR

Selected topics as announced. Prerequisite: consent of the instructor. (1-4)

591 DIRECTED STUDY, (1-4)**595 GRADUATE READINGS**

Independent study card required. (4)

598 RESEARCH PROJECT (4)**599 THESIS (4)**

P Psychology

Psychology



Through its curriculum, use of community resources, and research programs, the Department of Psychology provides students with a comprehensive and balanced exposure to psychology as a discipline, a science, and a profession.

The major helps prepare students for graduate work in psychology or for employment after graduation in a variety of settings. In addition the psychology major is pursued by some students who plan to do graduate work in fields outside of psychology such as social work, law, business administration, or theology. The minor in psychology is designed to be a supplement to another major in the liberal arts or to a degree program in a professional school, such as business administration. The Department of Psychology also offers a broad range of courses which can be individually selected by a student once the *Introduction to Psychology* course has been completed.

As a supplement to academic learning, the department offers opportunities for students to have experience of a field-work nature in a wide variety of settings in the greater Tacoma area, such as: American Lake Veterans Hospital, Western State Hospital (including the Child Study and Treatment Center), Rainier State School (developmentally disabled), mental health clinics, special services departments of local school districts, and so on.

The laboratory classes offered by the department are small in size with maximum importance attached to individualized instruction.

FACULTY

Nolph, Chair; Adachi, D. Anderson, R. M. Brown, Hansvick, LeJeune, Moritsugu, Schmutte.

BACHELOR OF ARTS MAJOR: 32 semester hours, including 101, 243, 340, 460. In addition, Statistics 231 is required. The Undergraduate Record Exam is required of all graduating majors.

MINOR: 20 semester hours of which at least 8 hours must be taken in residence. Statistics 231 may be included with departmental consent.

110 may not be counted toward the major or minor. Courses at the 500 level are primarily for graduate students; however, they may be taken by advanced undergraduates who receive the instructor's consent.

COURSE OFFERINGS

101 INTRODUCTION TO PSYCHOLOGY

An introduction to the scientific study of behavior; scientific methods for studying the behavior of living organisms; topics such as motivation, learning, emotion, intelligence, personality, adjustment, and social behavior. I II (4)

110 STUDY SKILLS

Effective techniques for college study. Note-making, study method, examination skills, time management, educational planning. Class work supplemented by individual counseling. (May not be counted in the major or minor.) I II (1)

111 COLLEGE READING

Improvement of college-level reading skills. Previewing, skimming, scanning, rapid reading, critical reading, and study reading. (May not be counted in the major or minor.) I II (1)

221 THE PSYCHOLOGY OF ADJUSTMENT

Problems in personal adjustment in everyday living. Prerequisite: 101. I II (2)

243 SCIENTIFIC METHODS

Basic research design and theory construction; applications to both laboratory and field. Special emphasis on perception and cognition. Lecture and laboratory. Majors must take four credit hour option. Prerequisite: 101. I II (2 or 4)

325 HUMAN SEXUALITY-EMOTIONALITY

Study of the psychological, biological, and cultural components of human sexual and emotional behavior. Topics include sexual identity, typical and atypical sexual behavior, reproduction, courtship, and affection. Prerequisite: 101. (4)

330 SOCIAL PSYCHOLOGY

Research and theory concerning the interaction between groups and the individual. Language, attitudes, aggression, leadership, person perception, and related topics are examined and their relationship to various types of social change and influence are discussed. Prerequisite: 101. I (4)

335 DEVELOPMENT: INFANCY TO MATURITY

Physical, intellectual, social, and emotional growth from infancy through adolescence to maturity. Prerequisite: 101. I II (4)

340 HUMAN NEUROPSYCHOLOGY

The study of brain-behavior relationships. Topics include neuro-anatomical and neurophysiological mechanisms underlying human behavior; psychological effects of brain damage; physiological correlates of languages, sensory and motor functions, and emotion; electrical stimulation of the brain. Prerequisite: 101. I (4)

342 DRUG AND ALCOHOL USE AND ABUSE

Survey of the literature on causes and treatments for alcohol and drug abuse. Implications of current research regarding treatment effectiveness of alcohol and drug problems. Prerequisite: 101. (2-4)

345 COGNITIVE PROCESSES

The study of human mental activity. Topics include attention, perception, consciousness, memory, language, conceptual behavior, developmental aspects of cognition, individual differences, and applications (4)

355 ENVIRONMENTAL PSYCHOLOGY

Human behavior related to the physical environment. Behavioral basis for designing environments—including territorial behavior; environmental attitudes and perceptions; and stressors. Applications to built and natural settings ranging from rooms to the wilderness. (4)

399 INTERNSHIP

A practicum experience in the community in the clinical, social, and/or experimental areas. Classroom focus on case conceptualization and presentation. Prerequisite: sophomore standing plus one course in psychology and consent of the department. (1-6)

401 WORKSHOP

Selected topics in psychology as announced.

403 THE PSYCHOLOGY OF INFANCY AND CHILDHOOD

Physical, intellectual, emotional, and social development of the individual from the pre-natal period to adolescence; problems of behavior and adjustment. Prerequisite: 335. (2)

405 ADOLESCENT PSYCHOLOGY

Physical development, mental traits, social characteristics, and interests of adolescents; adjustments in home, school, and community. Prerequisite: 335. II (2)

420 PERSONALITY THEORIES

Strategies for the study of personality theories. Techniques of measurement and implications for counseling and/or psychotherapy. Prerequisite: 101. I II (4)

421 ABNORMAL PSYCHOLOGY

Etiology and treatment of abnormal behavior. Emphasis on treatment in community-based settings and institutions. Field placement or equivalent required. Prerequisite: 101. I II (4)

422 COMMUNITY PSYCHOLOGY

Intervention strategies which focus primarily on communities and social systems. Particular stress on alternatives to traditional clinical styles of promoting the well-being of communities. Field placement required. Prerequisite: 101. (4)

450 PSYCHOLOGICAL TESTING

Survey of standardized tests; methods of development, standardization; limitations and interpretations of tests. Prerequisite: 243, a course in statistics, or consent of instructor. I (4)

460 LEARNING: RESEARCH AND THEORY

Experimental studies and theories of learning. Lecture and laboratory. Prerequisite: a minimum of 12 hours in psychology including 243. II (4)

490 HISTORY AND SYSTEMS OF PSYCHOLOGY

Historical development, contemporary forms, and basic assumptions of the major psychological theories and traditions. Primarily for advanced majors and graduate students. I (4)

491, 492 INDEPENDENT STUDY

A supervised reading, field, or research project of special interest for advanced undergraduate or graduate students. Prerequisite: departmental consent. I II (1-4)

493 SEMINAR

Selected topics in psychology as announced. Prerequisite: consent of instructor.

501 GRADUATE WORKSHOPS

Graduate workshops in special fields or areas for varying periods of time. (1-4)

510 INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY

Human behavior in work settings. Applications or extension of psychological factors and principles to the problems of individuals operating within an organizational context—including human relations skills, human factors, individual and group differences, and role-related behaviors. (4)

515 PSYCHOLOGICAL ASSESSMENT

Intellectual and personality assessment. For the former, the study of such tests as the Revised Wechsler Intelligence Scale for Children, and the Revised Wechsler Adult Intelligence Scale; for the latter, interview techniques, self-report tests such as the MMPI and projective methods. Prerequisite: 450. II (4)

540 COUNSELING METHODS

Focus on strategies for treatment of individual clients. Emphasis on case conceptualization, communication skills, and instruction in current techniques via role play and videotape feedback. Prerequisite: 420, 421 or consent of instructor. I II (4)

550 GROUP COUNSELING

Counseling theories and methods applied to the group context. Prerequisite: 540. (4)

570 GRADUATE INTERNSHIP IN COUNSELING AND/OR ASSESSMENT

An opportunity to develop counseling and/or assessment skills in a setting in which these professional services are offered. Classroom focus on case conceptualization and presentation. Prerequisite: 515 and/or 540. I II (4)

577 GRADUATE INTERNSHIP IN COUNSELING AND/OR ASSESSMENT

An opportunity for the more advanced student to work in the areas of counseling and/or assessment in a setting in which these professional services are provided. Classroom focus on case conceptualization and presentation. Prerequisite: 570. I II (4)

590 GRADUATE SEMINAR

Selected topics as announced. Prerequisite: consent of instructor. (1-4)

591 DIRECTED STUDY (1-4)**595 GRADUATE READINGS**

Independent study card required. (4)

598 RESEARCH PROJECT (4)**599 THESIS (4)**

R

Religion



Religion

Religion is an attempt to understand the meaning of human existence. For Christians meaning is revealed in the love of God in Jesus Christ. The Department of Religion stands within and affirms this Christian context.

In a university setting this means the serious academic study of the Bible, of the history of the Christian tradition, of attempts to understand God's continuing activity, and of God's promises for the future.

The revelation of God in Jesus Christ likewise calls for other roles. It calls for open and authentic dialogue with other religious traditions, and thus seeks to understand a common humanity as each tradition adds its unique contribution. It calls for a critical yet constructive interchange with contemporary society. Finally, it calls for a sharing of insights with other disciplines in the university as each sheds light on the human condition.

To these ends the Department of Religion offers a wide range of courses and opportunities. Furthermore it calls students, majors and non-majors alike, to consider questions of meaning, purpose, and value in a society which all too often neglects these questions.

R

Religion

Lutheran Institute for Theological Education (LITE): The Department of Religion also participates in a program of continuing theological education for clergy and laity in the Pacific Northwest. Dr. Walter Pilgrim directs the LITE program. For further details contact Dr. Pilgrim.

FACULTY

Ingram, Chair; J. Brown, Christopherson, Gehrke, Govig, Knutson, Petersen, Pilgrim, Poellet, Stivers.

UNIVERSITY CORE REQUIREMENTS: 8 semester hours for students entering as freshmen or sophomores. Four lower division hours shall be taken before the end of the sophomore year. The second 4 hours may be selected from most of the other offerings in the religion curriculum. Transfer students entering as juniors or seniors are required to take 4 semester hours of religion unless presenting eight transfer hours of religion from other accredited colleges or universities.

The Core I requirement in Religious Studies (8 hours) specifies that 4 hours must be taken from each of two lines, as follows:

1. Biblical Studies-241, 341, 342, 343.
2. Christian Thought, History, and Experience-131, 251, 351, 353, 371, 372, 373, 375, 381, 382, 383, 391, 392, 393, 451, 485.
3. Integrative and Comparative Religious Studies-261, 262, 361, 362, 363, 367, 380, 480, 490, 493 (or other approved courses listed in the time schedule).

Junior and senior transfer students need to complete only one course (4 hours) from lines 1 or 2.

BACHELOR OF ARTS MAJOR: 28 semester hours, with 12 hours concentrated in one of five areas (Biblical Studies; History of Christianity; History of Religions; Theology and Ethics; and Religion, Culture, Society, and the Individual), and 16 hours distributed so that at least 4 hours are taken in each of two other areas. Transfer majors must take at least 12 hours in residence. Students may apply for the contract major, without previously specified requirements, designed to encourage student freedom, initiative, and responsibility. See department chair for details on the five areas or the contract major. Majors should plan their program early in consultation with departmental faculty. Closely related courses taught in other departments may be considered to apply toward the major in consultation with the staff.

MINOR: 16 semester hours, with no more than 8 hours in one of the five areas listed above.

LAY CHURCH STAFF WORKER PROGRAM

A student who seeks to fulfill a vocation of service to the church and community as an unordained professional may prepare for certification by the appropriate church judicatory as a church staff worker. Positions currently filled by such workers include:

- Church Business Administrator
- Church Musician
- Director of Christian Education
- Christian Day School Teacher
- Parish Worker
- Youth Work Director
- Church Staff Associate (General)

A major in religion is normally required for this program, with supporting work selected in the appropriate department or school at PLU (for example, business administration, music, education, social sciences, or physical education). Many certification agencies require a period of full-time internship.

Students enrolled in the program will be advised as to those institutions, boards, and agencies within the church that may assist them in planning their educational programs and obtaining placement for internship and after graduation.

The department designates one of its members as coordinator and as adviser to its majors who are in this program. Other faculty members for related fields outside of religion and from the department assist in advising.

The Study Program

The religion major of a student in the Church Staff Worker Program must include courses which will insure basic acquaintance with (1) the Bible (ordinarily two courses: 241, the section on the Old Testament and 241, the section on the New Testament) and (2) denominational history, doctrine, and worship (for certification in The American Lutheran Church ordinarily one course: 393, *The Lutheran Heritage*).

The student is free to choose the remainder of the seven courses of the major in such a way as to meet individual interests and needs. However, to insure wholesome breadth in religious studies no more than two of the remaining courses (ordinarily four) can be taken in any one of the department's five areas of study (Biblical Studies; Theology and Ethics; History of Religions; History of Christianity; Religion, Culture, Society, and the Individual). 381, *Studies in Church Ministry*, is highly recommended but not required.

COURSE OFFERINGS

131 JUDAEO-CHRISTIAN LIFE AND THOUGHT

Biblical, historical, and theological foundations with reference to contemporary issues. (4)

241 BIBLICAL LITERATURE

Literary, historical, and theological dimensions of the Bible, including perspective on contemporary problems. (4)

251 INTRODUCTION TO THEOLOGY

Basic questions of the Christian faith approached topically. Questions such as what does Christianity mean by "God" will be considered through Biblical, historical, and contemporary resources. Some attention given to challenges to the Christian faith and its interaction with other perspectives. (4)

261 RELIGIONS OF THE WORLD

A critical introduction to the study of the religions of the world, emphasizing historical origins and cultural developments. Readings centered upon primary sources in translation. (4)

262 MYTH, RITUAL, AND SYMBOL

An examination of the nature of myth and its expression through symbol and ritual. Attention given to pre-literate mythology, Asian mythology, and Occidental mythology and the role these mythological traditions have played in the development of modern ethical, social, and religious values. (4)

341 OLD TESTAMENT STUDIES

Major areas of inquiry: the Prophets, Psalms, and Wisdom Literature or Mythology and Theology. (4)

342 NEW TESTAMENT STUDIES

Major areas of inquiry, such as intertestamental, synoptic, Johannean, or Pauline literature. (4)

343 THE LIFE OF JESUS

A study of the life and teachings of Jesus; a historical survey of "Life of Jesus" research, form and redaction criticism of the Gospel tradition; the religious dimensions of Jesus' life and thought. Prerequisite: one lower division course or consent of instructor. (4)

351 CHRISTIAN ETHICS

An introduction to the personal and social ethical dimensions of Christian life and thought with attention to primary theological positions and specific problem areas. (4)

353 THEOLOGICAL STUDIES

A selected topic in Christian theology such as understandings of God, liberation theology, Christology, or interreligious dialog. (4)

361 PHILOSOPHICAL AND RELIGIOUS TRADITIONS OF INDIA

Emphasis on Vedic and Upanishadic traditions, BHAGAVAD-GITA, "six orthodox schools," Buddhism, and contemporary Indian philosophical and religious developments. Readings centered on primary sources in translation. (4)

362 PHILOSOPHICAL AND RELIGIOUS TRADITIONS OF CHINA

Classical and modern philosophical and religious traditions of China (the six "classical schools," the neo-Taoist, and neo-Confucian traditions), Chinese Buddhism, and how these schools relate to contemporary China's Marxist-communist ideology. Readings centered on primary sources in translation. (4)

363 ISLAM

A study of origins, theology, practice, and expansion of Islamic religious faith with an emphasis upon the life and teachings of Mohammed, the major religious ideas of the Koran, the theological perspectives of Sunnite, Shi'ite, and Sufi Islam, and the problems facing modern Muslim thought and practice in its encounter with Westernization and modernization. Additional attention given to the possibilities and structure of Muslim-Christian dialog. (4)

367 JUDAISM

Faith and commitment, structure and dynamics, as expressed in this major Western religion, including studies of interpretation of the Hebrew Bible, theological emphases, religious observances, historical developments, modern groups, and Jewish-Christian dialog. (4)

371 ANCIENT CHURCH HISTORY

The origins, thought, and expansion of the Christian Church; rise of the Papacy, expansion in Europe and the growth of Christian involvement in culture; to the end of the Papacy of Gregory I (604). Prerequisite: one lower division course or consent of instructor. (4)

372 MODERN CHURCH HISTORY

Beginning with the Peace of Westphalia (1648), interaction of the Christian faith with modern politics, science, and philosophy; expansion in the world, modern movements. II (4)

373 AMERICAN CHURCHES

The development of trends of Christianity in the United States. (4)

375 CHURCH HISTORY STUDIES

A selected area of inquiry, such as the Charismatic Movement, the Ecumenical Movement, the Lutheran Confessions, or American-Scandinavian Church History. (4)

380 SOCIOLOGY OF RELIGION

A multi-cultural investigation of religious experience, belief, and ritual in relation to their social settings with particular attention to new forms of religion in America. (Cross-referenced with SOC 380) (4)

381 STUDIES IN CHURCH MINISTRY

Toward a functional viewpoint of the church's ministry: worship and education, programs for the youth and the elderly, counseling, and administration. Firsthand observation of selected ministries. Prerequisite: one lower division course or consent of instructor. (4)

382 CHRISTIANITY AND THE SOCIAL CRISIS

An intensive, in-depth exploration from the perspective of Christian theology and ethics of one or two current social issues. (4)

383 RELIGIOUS EXPERIENCE AMONG AMERICAN MINORITIES

Concentrating on the religious experiences and contributions of those sectors in American society that have a minority identity and often are not included in the usual study of American churches, this course will in different semesters focus on different minorities such as Blacks, Indians, Chicanos. (4)

391 LUTHER

The man and his times, with major emphasis on his writing and creative theology, such as the radical centrality of the Gospel and faith, the Word and Scripture, the sacraments, church and state. (4)

392 CHRISTIAN CLASSICS

Christian literature: devotion, biography, theology, poetry; Augustine, Thomas a Kempis, Dante, Luther, Calvin, Pascal, Wesley, Kierkegaard, and others; group core plus seminar reports. (4)

393 THE LUTHERAN HERITAGE

A study of Lutheranism as a movement within the church catholic; its history, doctrine, and worship in the context of today's pluralistic and secular world. (Majors in religion who are in the Church Staff Worker Program will be given enrollment priority.) (4)

451 CHRISTIAN THOUGHT AND MODERN CONSCIOUSNESS

Contemporary issues and problems in theology with reference to Biblical and historical resources and recent understanding of humanity and the world. Readings from such theologians as Barth, Bonhoeffer, Buber, Bultmann, Gutierrez, Miguez-Bonino, Moltmann, Pannenberg, Teilhard de Chardin, and Tillich. Prerequisite: one lower division course or consent of instructor. (4)

480 GODS, MAGIC AND MORALS

The anthropology of religion; a survey of humanity's concepts of and relationships to the supernatural; examination of the varying personal and group functions that religions fulfill; exploration of rituals, beliefs, and systems of morality in religions both "primitive" and historical; origins of religion; science "versus" religion; the nature of reality. (Cross-referenced with ANTH 480) (4)

485 CHRISTIANITY AND THE ARTS

Relationships of Christian thought to the forms and contents of various media of artistic creativity. II a/y (4)

490 RELIGION AND CONTEMPORARY ISSUES

A seminar which considers the theological and ethical dimensions of current issues (such as human sexuality, politics, death and dying, healing, electronic church, etc.). (4)

491, 492 INDEPENDENT STUDY

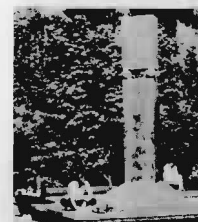
Intended for religion majors, advanced and graduate students; consent of the department is required.

493 MAJOR THINKERS

The in-depth and intensive study of one or two major figures in Christian theology or other religious thought, e.g., Augustine, Bonhoeffer, Buber, Bultmann, Niebuhr, Radhakrishnan, Tillich. Prerequisite: one lower division course or consent of instructor. (4)

495 ADVANCED SEMINAR IN RELIGION

Selected topics to be announced. For majors, minors, and students with at least three courses in religion. Priority to majors and minors. (4)



S Scandinavian Area Studies

Scandinavian Area Studies

Scandinavian Area Studies is a flexible program which draws on many university departments. It offers a broad perspective on Scandinavia past and present, while developing useful analytical and communicative skills. The program reflects both the Scandinavian heritage of the university and the dynamic profile of Scandinavia within the world community today.

Students enrolled in the Scandinavian Area Studies major are expected to demonstrate the equivalent of two years of Norwegian, Swedish, or Danish language instruction (16 hours). To gain a basic understanding of the region, they also take 6 hours in Scandinavian cultural history and 4 hours in Scandinavian literature (400-level).

Majors choose additional Scandinavian and cross-disciplinary courses in accordance with personal interests and goals and in consultation with the program coordinator (4 hours in cross-disciplinary courses, 2 hours in a senior project, and 8 hours of electives). A total of 40 semester hours is required. With the approval of the Scandinavian Studies committee, selected interim, summer, and experimental courses may be included in the major program. No more than 8 semester hours may be offered to meet both the Scandinavian Area Studies major and general university requirements or requirements for a second major. Such cross-application of courses must be approved by the Scandinavian Studies Committee.

The cross-disciplinary courses listed below offer an opportunity to view the Scandinavian countries in comparison with other world regions. Courses indicated by the initial "S" are regular departmental offerings in which students enrolled in the Scandinavian Area Studies major focus their reading and work assignments to a significant extent on Scandinavia. Students must consult with the program coordinator concerning the correct registration for these courses.

Students are encouraged, though not required, to study in Scandinavia as part of their program. Study opportunities are available at a variety of institutions in Norway, Sweden, and Denmark. Appropriate coursework completed abroad should be submitted to the Scandinavian Studies committee for approval toward the major.

Students interested specifically in Norwegian language study are referred to the description of the Norwegian major under the Department of Languages. All core Scandinavian courses are taught out of this department.

Courses Applicable to the Scandinavian Area Studies Major

Scandinavian Courses

Languages:

- Norwegian 101, 102—Elementary
- Norwegian 210, 202—Intermediate
- Norwegian 351—Conversation and Composition
- Norwegian 352—Advanced Conversation and Composition

Cultural History:

- Scandinavian 321—Vikings and Emigrants
- Scandinavian 322—Contemporary Scandinavia

Literature:

- Scandinavian 250—Literary Masterpieces of Scandinavia
- Scandinavian 421—Ibsen, Strindberg, and Their Contemporaries
- Scandinavian 422—Twentieth Century Scandinavian Literature

Cross-Disciplinary Courses

- Art 381-S—20th Century Design and Architecture
- Anthropology 460-S—Women and Men in World Cultures
- Anthropology 470-S—Ethnic Groups
- Economics 331-S—International Economics
- Economics 381-S—Comparative Economic Systems
- English 364-S—Special Topics in Children's Literature
- English 381-S—Studies in Medieval Literature
- History 323-S—The Middle Ages
- History 325-S—Reformation
- History 495-S—Seminar: European History
- Philosophy 326-S—Moral Problems in the Social Services
- Philosophy 365-S—Kierkegaard and Existentialism
- Political Science 345-S—Government and Public Policy
- Political Science 381-S—Comparative Legal Systems
- Religion 372-S—Modern Church History
- Religion 375-S—Church History Studies
- Sociology 342-S—Intimacy and the Family Today

Scandinavian Studies Committee: Myrbo, Chair & Program Coordinator; Farmer, Nordquist, Pederson, Rasmussen, Ringdahl, Toven.

COURSE OFFERING

495 SENIOR PROJECT

A research paper, internship, or other approved project. For Scandinavian Area Studies majors. I II (2)



Division of *Social Sciences*

S

Division of Social Sciences

The Division of Social Sciences has 39 faculty members in the Departments of Anthropology, Economics, History, Political Science, Psychology, Social Work and Marriage and Family Therapy, and Sociology. Of these, over 90 per cent hold doctoral degrees from major American and Canadian universities.

The Division of Social Sciences is particularly concerned with the relationship of theory and research to actual social practice. The division develops and encourages cooperative endeavors among its own departments, with other departments of the university, and with the community. In addition, the Division of Social Sciences seeks to improve the accessibility of higher education to those seriously seeking it by offering programs in the evenings and at off-campus locations.

Members of the division are actively engaged in research and writing. Qualified students may assist faculty with community research. The Center for the Study of Public Policy supports joint faculty-student research projects on a wide range of multidisciplinary topics related to public policy. Topics of recent research have included problems of the aged, population and world hunger, affirmative action, historic preservation, and threats to the environment.

In addition to the Center for the Study of Public Policy, special programs supported by the division include CHOICE (Center for Human Organization in Changing Environments), the Family and Children's Center, Legal Studies, and Women's Studies. The Washington Council for Economic Education, centered at the university, works to raise the level of understanding of economic principles among teachers and students in the Pacific Northwest. As a special effort to bring together faculty, students, and community, the division sponsors the National Issues Forums as part of the Domestic Policy Association, a national organization committed to civic education.

FACULTY

Atkinson, Divisional Dean; faculty members of the Departments of Anthropology, Economics, History, Political Science, Psychology, Social Work and Marriage and Family Therapy, and Sociology.

As a division within the College of Arts and Sciences, the Division of Social Sciences offers programs in each constituent department leading to the B.A. degree. Programs leading to the M.A. and M.P.A. degrees are also offered. Course offerings and degree requirements are listed under

ANTHROPOLOGY
ECONOMICS
HISTORY
POLITICAL SCIENCE
PSYCHOLOGY
SOCIAL WORK AND MARRIAGE AND
FAMILY THERAPY
SOCIOLOGY

See also the sections of this catalog on Legal Studies and International Education.

COURSE OFFERINGS

502 SOCIAL SCIENCE THEORY

An analysis of social explanation and the social science frame of reference. (4)

505 SOCIAL SCIENCE RESEARCH METHODS

Basic research concepts applied to laboratory, field, and bibliographic studies. Topics include formulating research questions, research designs, data gathering techniques, analysis of data, and theory construction. Emphasis on understanding and evaluating rather than conducting research. (4)



Social Work & Marriage and Family Therapy

Social work is a practice-oriented discipline educating students for participation in a variety of human service programs. The major program also provides strong preparation for subsequent graduate education in social work. Although basically a professional program, the curriculum is firmly based in the liberal arts. Emphasis is placed on providing students with knowledge and skills in various models of intervention among troubled individuals, families, small groups, and larger segments of society. In addition, the curriculum stresses mastery of social research skills, human growth and development, and political and economic factors which affect social welfare programs within society.

A major strength of the curriculum is the field experience component. Senior students are given opportunity over two semesters to participate in the program of an agency, institution, or service delivery clinic of their choice. Placements emphasizing systems and community intervention are also available.

Supervision is provided by professionally trained staff social workers. Additional opportunities for field work, other than the required field experience courses, are available in the *Community Services* course, which provides an initial exposure to social services for freshmen and sophomores and in internships, which involve specially arranged placement. The social work program is accredited by the Council on Social Work Education.

The department also participates extensively in a specialized program in Marriage and Family Therapy leading to the M.A. in Social Sciences. The primary objective of the program is to give students a strong conceptual background and professional skills useful in counseling couples and families. For some students the program is ideally suited to augment their current professional practice (for example, psychology, social work, medicine, nursing, education, parish ministry, or chaplaincy). The program emphasizes practice, where a student is required to complete a minimum of 500 hours of clinical experience. Persons completing the program are eligible to seek certification as associate members of the American Association of Marriage and Family Therapists.

FACULTY

V. Hanson, *Chair*; Gilbertson, Schiller, York.

BACHELOR OF ARTS MAJOR: 44 semester hours, including 271, 333, 365, 377, 442, 472, 475, 476, and 484, and 4 hours in political science and 4 hours in economics (selected in consultation with an adviser).

Unless otherwise stated, 271 or consent is a prerequisite for all courses in social work.

COURSE OFFERINGS— SOCIAL WORK

222 COMMUNITY SERVICES

Designed to provide an opportunity for freshman and sophomore level students to test their interest in the field of social work through a five to ten-hour week participant-observation experience in a local agency. The purposes are to provide opportunity for a self-evaluation of one's aptitude for and interest in the field, and secondly, to introduce the idea of evaluating the effectiveness of the agency in terms of achieving its stated goals. No prerequisites. Will not meet general university core requirements. (2-4)

271 INTRODUCTION TO SOCIAL WORK

The history, philosophical roots, practice methods and "settings" (i.e., adoptions, public schools, public assistance, corrections, psychiatric hospitals and clinics) of professional social work; opportunities for observational experiences. No prerequisites. I II (4)

333 INTERVIEWING

Concepts, principles, and techniques intrinsic to interviewing; "helping," problem-solving, or "clinical" interviewing for persons in the helping professions: social work/social welfare, clergy, nursing, physicians, parish workers, personnel officers. No prerequisites. I II (4)

342 DRUG AND ALCOHOL USE AND ABUSE

Survey of the literature on causes and treatments for alcohol and drug abuse. Implications of current research regarding treatment effectiveness of alcohol and drug programs. (2-4)

365 HUMAN SERVICE SYSTEMS CHANGE

Theories and strategies used in maintaining relevance between client needs and community needs and human service delivery systems. I II (4)



377 FAMILY AND CHILD DEVELOPMENT

A social and psychological examination of family development using a systems approach. Study of family development throughout the life cycle. Consideration of emerging and alternative family structures. (4)

399 INTERNSHIP

A supervised learning experience in an agency setting with emphasis on acquiring an overview of the agency, in contrast to learning specific social work skills. Intended to provide the opportunity to apply and test out knowledge acquired in courses previously taken in the social sciences. Can be a useful complement to 475 and 476, which are more skill oriented. I II (1-4)

442 SOCIAL POLICY AND ORGANIZATION

Analysis of how societies have defined social and personal needs and developed and organized responses to those needs. Special emphasis will be given to the response of American society. (4)

458 LAW AND THE HUMAN SERVICES

An examination of the legal foundations of human services with emphasis on domestic relations, corrections, and juvenile justice. Special emphasis on the rights of offenders, juveniles, dependent children, the handicapped, and others served by the social sector. (4)

472 SOCIAL WORK PRACTICE

The profession of social work examined within the group of helping professions; the knowledge base, principles, methods, and values generic to social work practice; observation of problem-solving structures and processes. Prerequisites: 271 and consent of instructor. I II (4)

475, 476 FIELD EXPERIENCE

Supervised field work within an agency or institution; application/integration of knowledge, theory, and understanding; development of techniques common to the social work field. Prerequisite: 271 and consent of instructor. I II (4, 4)

484 SOCIAL RESEARCH

Principles of research design and assessment of various research methods. Evaluation research will be given special attention. Primary emphasis on understanding and critically examining actual research. (4)

490 SEMINAR

Prerequisite: departmental consent. (1-4)

491 INDEPENDENT STUDY

Prerequisite: departmental consent. (1-4)

COURSE OFFERINGS— MARRIAGE AND FAMILY THERAPY

501 GRADUATE WORKSHOPS

Graduate workshops in special fields or areas for varying periods of time. (1-4)

503 SYSTEMS APPROACH TO MARRIAGE AND FAMILY THERAPY

An introduction to the systems theory approach for treatment strategy and intervention. Exploration of the family life cycle and family systems oriented assessment models. Strategies for initial interviews, hypothesis formulation, designing a strategy of intervention, and the process of termination. (4)

507 COMPARATIVE MARRIAGE AND FAMILY THERAPY

Intensive comparative study of the theoretical rationale of the prominent schools of thought within the field of marriage and family therapy. Studies include the range of strategies, techniques and research of structural, behavioral communication, and analytical approaches to marriage and family therapy. (4)

510 SEX THERAPY

Basic principles and strategies of treatment for the six most common sexual dysfunctions. The nature of sexual health, a brief review of anatomy and physiology of the sexual response, and the biological and psychological determinants of sexual dysfunction. (2)

511 PSYCHOSOCIAL PATHOLOGY: RELATIONSHIP TO MARRIAGE AND THE FAMILY

The assessment of psychosocial pathology and its relationship to family interpersonal structures and dynamics. Exploration of the treatment techniques and assumptions of leading family therapists regarding such psychosocial dysfunctions as divorce, family violence, delinquency, psychosomatic symptoms, drug addiction, and disturbed adolescents. (2)

519 PRACTICUM I (4)**520 PRACTICUM II (4)****521 PRACTICUM III (4)****522 PRACTICUM IV (4)**

The four semesters of practica are part of a continuous process toward developing specific therapeutic competencies in work with marriages and families. The practica present a competency-based program in which each student is evaluated regarding: 1) case management skills; 2) relationship skills; 3) perceptual skills; 4) conceptual skills; and 5) structuring skills.

590 GRADUATE SEMINAR

Selected topics as announced. Prerequisite: consent of the instructor. (1-4)

591 DIRECTED STUDY (1-4)**595 GRADUATE READINGS**

Independent study card required. (4)

598 RESEARCH PROJECT (4)**599 THESIS (4)**

Sociology

Sociology

The Department of Sociology strives to produce students who can understand themselves, society, and the world, the relationship among them, and the moral context of that relationship.

By expanding their knowledge and developing their skills, students enhance their ability to make informed decisions, to exercise their capacity for self-criticism and self-evaluation, to function effectively as knowledgeable and responsible citizens, to know and accept themselves and their special strengths and limitations, to exhibit interpersonal and intercultural tolerance, and to display their acquisition of both basic and sophisticated academic skills.

The department's curriculum is flexible and responsive to individual, university, and societal needs and changes. It reflects liberal arts purposes, is planned to develop skills and achieve excellence, and seeks integration while sponsoring diversity. Through a distinguished faculty who are willing not only to inform others but also *to be* informed, the department aims for regional recognition of its efforts and strengths.

FACULTY

O'Connor, *Chair*; Biblarz, Jobst, Oberholtzer, Schiller.

BACHELOR OF ARTS:

General Major: 36 semester hours, including 101 or 331; 4 hours at the 200 level; 8 hours at the 300 level; 8 hours at the 400 level; 399 (2 hours); 410; 470; and Statistics 231.

Major with Specialization in Crime and Society: 36 semester hours, including 101 or 331; 336; 8 hours selected from 240, 340, 456, 460, 493; 399 (2 hours); 410; and 470; plus 12 hours selected from Anthropology 440; History 451; Political Science 336, 371, 372, 373; Psychology 421 or Social Work 442.

Major with Specialization in Family and Gender Studies: 36 semester hours, including 101 or 331; 342; 8 hours selected from 260, 381, 406, 493; 399 (2 hours); 410; and 470; plus 12 hours selected from Anthropology 460; Psychology 335, 403, 405, 420; or Social Work 442.

Major with Specialization in Social Organization: 36 semester hours, including 101 or 331; 345; 8 hours selected from 343, 422, 430, 443, 456, 465, 493; 399 (2 hours); 410; and 470; plus 12 hours selected from Anthropology 440, 450; Economics 432, 434; Political Science 345, 361, or Social Work 442.

Major with Specialization in Ethnic and Minority Structures: 36 semester hours, including 101 or 331; 364; 8 hours selected from 280, 344, 390, 441, 493; 399 (2 hours); 410; and 470; plus 12 hours selected from Anthropology 330, 332, 340, 350, 352, 360, 440, 470; Economics 290, 321, 331, 381; History 471; Political Science 386 or Social Work 442.

NOTE: 101 or 331 recommended prerequisite to all 300 and 400 level courses.

MINOR: 16 semester hours, including 101 or 331, one course at the 300 level, one course at the 400 level, and one additional course chosen in consultation with the department.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

COURSE OFFERINGS

101 INTRODUCTION TO SOCIOLOGY

An introduction to the principles, concepts, and areas of sociology as well as the analysis tools used in studying social behavior. I II (4)

240 SOCIAL PROBLEMS

Analysis of various theories and social responses to several current social problems. Topics include mental health, poverty, crime, family disorganization, and work alienation. (4)

260 INTERPERSONAL RELATIONSHIPS AND GROUP BEHAVIOR

An examination of processes of interaction that the person experiences in small group settings and the implications that has for interpersonal behavior and self-conceptions. (4)

280 INTRODUCTION TO RACE RELATIONS

The history of American race relations. Factors accounting for changes in relationships between whites and nonwhites. Critical areas of conflict among the races. (4)

331 PRINCIPLES OF SOCIOLOGY

An advanced introductory course stressing the major concepts and fundamental processes operative in all areas of social relationships. Not open to students who have taken 101 or its equivalent. (4)

333, 334 WOMEN AND MEN IN SOCIETY

An overview of changing roles of women and men in American society. Discussion of local, national, and international sex role issues. I, II (1, 1)

336 DEVIANT BEHAVIOR

An exploration of nonconforming behavior such as drug use, homosexuality, cultic religion with particular attention to the dialectical process of its gradual emergence and its social rejection. (4)

340 CRIME AND DELINQUENCY

Analysis of adult crime and juvenile delinquency with attention to their social roots, development, and social impact. (4)

342 INTIMACY AND THE FAMILY TODAY

Analysis of the family as a system of social roles and a social institution. Topics include: courtship, marriage and parenthood, personality development, changing family role patterns, and alternate family forms. (4)

343 SOCIAL MOVEMENTS AND CHANGE

An examination of the theories of social change in the understanding of social movements; factors accounting for the emergence and persistence of social movements; emphasis on political processes and changes. (4)

344 CONFLICT RESOLUTION

Factors accounting for interpersonal and intergroup tensions. Interpersonal, intergroup, national, and international methods of resolution. (4)

345 SOCIOLOGY OF ORGANIZATIONS

Analysis of structures, processes, and change in bureaucratic organizations; their effects upon the individual and the organization; interrelationships between society and organizations. (4)

364 ETHNICITY IN PLURAL SOCIETIES

An examination of the nature of ethnic groups (racial, tribal, cultural, etc.); the structure of ethnic groups in plural societies, the manipulation of symbols by ethnic groups, ethnic division of labor, ethnic politics, and the effects of colonial and post-colonial international systems on ethnic relations. (4)

380 SOCIOLOGY OF RELIGION

A multi-cultural investigation of religious experience, belief, and ritual in relation to their social settings with particular attention to new forms of religion in America. (Cross-referenced with REL 380) (4)

381 SOCIALIZATION

An examination of how individuals learn social roles and role competency through the socialization and resocialization process. Emphasis on adolescent and adult socialization within the context of institutions, organizations, and society. (4)

390 SOCIAL INEQUALITY

Examination of social inequalities within a global perspective. Theories, examples, and effects of inequality upon people in developing and modern societies. Special attention to the implications of inequality for diverse groups. (4)

399 INTERNSHIP

Demonstration of the implications of sociology, combining on site work with in class learning. The artful skill of using theory to solve problems and of handling the practicalities of working in agencies and bureaucracies. Placements: probation work, courts, planning agencies, social agencies, local and state governmental agencies, industries, and social action research. Prerequisite: departmental consent. NOTE: Majors are required to register concurrently for 399 (2 hours) and 410, preferably in their junior year. (1-4)

406 SEX ROLES AND SOCIETY

An examination of the roles performed by men and women in society. Treatment of both traditional and nontraditional roles and the cultural variables influencing this assignment. Particular attention to current changing sex roles for both men and women and how institutions such as the family, church, and schools are involved in these changes. (4)

410 APPLIED SOCIAL RESEARCH

Introduction to the various methods of sociological analysis and research. Methods considered: social surveys, participant observation, interviewing, data presentation and interpretation. NOTE: Majors are required to register concurrently for 399 (2 hours) and 410, preferably in their junior year. (2)

441 RACE, REVOLUTION, AND THE DEVELOPING COUNTRIES

An investigation of racism and stratification processes within the developing countries and between the developed and developing countries; its consequences and implications; the significance of American non-white minorities. (4)

442 SOCIAL POLICY AND ORGANIZATION

Analysis of how societies have defined social and personal needs and developed and organized responses to those needs. Special emphasis on the response to American society. (4)

443 SOCIOLOGY OF EDUCATION

The nature and functioning of the educational system will be examined from a sociological perspective. Topics: education, stratification, and social change; the school as a complex organization; the school as a social institution and the sociology of learning. (4)

456 LAW, CONFLICT, AND SOCIAL CHANGE

An examination of the social control functions of law and legal institutions; the influence of culture and social organization on law, legal change, and the administration of justice. (4)

460 PENOLOGY AND CORRECTIONS

An examination of historical and contemporary systems of adjudication and institutionalization of offenders. Consideration of recent alternative noninstitutional and diversionary programs. (4)

465 SOCIOLOGY OF MEDICINE

An examination of the social processes affecting conditions of health and disease and of the cluster of social relationships and organizations that comprise the institution of medicine. (4)

470 MASTERS OF SOCIAL THOUGHT

Basic sociological concepts and theories. Primary emphasis on contemporary conceptual approaches to social behavior and their historical antecedents. (4)

491 INDEPENDENT STUDY

Readings or fieldwork in specific areas or issues of sociology under supervision of a faculty member. Prerequisite: departmental consent. (1-4)

493 SEMINAR IN SOCIOLOGY

Student or faculty initiated seminar in one of four fundamental areas in sociology: (a) Contemporary Issues and Problems; (b) Social Process and Change; (c) Social Structure; and (d) Theory and Method. Prerequisite: departmental consent. (1-4)

501 GRADUATE WORKSHOPS

Graduate workshops in special fields or areas for varying periods of time. (1-4)

514 ORGANIZATIONAL AND SYSTEMS THEORY

Examination of the nature, origins, and structures of organizations and bureaucracies. Classic and contemporary theories of organizations are reviewed and critiqued. The influence, power, and social responsibilities of large organizations are examined from a historical as well as a contemporary perspective. (4)

530 GROUP DYNAMICS: THEORY AND PRACTICE

Examination of concepts and principles of human behavior in groups. Topics considered include membership, leadership, authority, cohesiveness, goals, norms, and processes. The application and use of theory in applied settings are explored. (4)

534 SOCIOLOGY OF WORK: QUALITY OF LIFE

Evaluation of job satisfaction in terms of occupational stress, fair compensation issues, job enrichment, career advancement and performance. Exploration of techniques of job redesign and enrichment along with trends for future workplaces. (4)

551 INTERVENTIONS PRACTICUM I

Application of organizational change theory within an applied setting. Emphasis upon identifying work situations for change and developing techniques for implementing change. (2)

552 INTERVENTIONS PRACTICUM II

Implementation and analysis of actual intervention within an organizational system or laboratory simulation with applied emphasis. Prerequisite: 551. (2)

590 GRADUATE SEMINAR

Selected topics as announced. Prerequisite: consent of the instructor. (1-4)

591 DIRECTED STUDY (1-4)**595 GRADUATE READINGS**

Independent study card required. (4)

598 RESEARCH PROJECT (4)**599 THESIS (4)**

S Statistics Program

Statistics Program

Statistics, a branch of applied mathematics, has become, and is expected to continue as an increasingly important area of inquiry. As society becomes more complex, the ability to gather, summarize, and evaluate data becomes more necessary for efficient and intelligent decision making.

FACULTY

Selected faculty from the Departments of Economics, Mathematics and Computer Science, and Psychology.

STATISTICS MINOR: A minimum of 16 semester hours, consisting of Statistics 231, Math 341, either Computer Science 110 or 144, plus electives selected from the remaining courses in statistics. Students interested in statistics should contact the respective heads of the Departments of Economics, Mathematics and Computer Science, or Psychology.

COURSE OFFERINGS

231 INTRODUCTORY STATISTICS

Descriptive statistics: measures of central tendency and dispersion. Inferential statistics: generalizations about populations from samples by parametric and nonparametric techniques. Methods covered will include estimation, hypothesis-testing, simple correlation analysis, linear regression and chi square analysis. (Not applicable to mathematics credit.) I II (4)

334 ANALYSIS OF VARIANCE AND EXPERIMENTAL DESIGN (MATH 334)

Random sampling, factors which destroy experimental design, one-way analysis of variance, two-way analysis of variance, factored design, block and latin square design. Students will also critique published experiments and perform an experimental design project. Prerequisite: STAT 231 or equivalent. II (2)

341 MATHEMATICAL STATISTICS (MATH 341)

Probability theory, discrete and continuous distribution functions, moment generating functions, sampling distributions and hypothesis-testing; introduction to regression, correlation, and analysis of variance. Prerequisite: MATH 152. II (4)

343 OPERATIONS RESEARCH (ECON 343)

Quantitative methods for decision problems. Emphasis on linear programming and other deterministic models. Prerequisite: STAT 231 or equivalent. II (2)

344 APPLIED REGRESSION ANALYSIS (ECON 344)

Simple and multiple regression analysis as investigative tools. Course stresses construction of elementary linear models and interpretation of regression results. Prerequisite: STAT 231 or equivalent. I (2)

491 INDEPENDENT STUDY (I-4)

500 APPLIED STATISTICAL ANALYSIS (ECON 500)

(Will not count for Statistics Minor) An intensive introduction to statistical methods for graduate students who have not previously taken Introductory Statistics. Emphasis on the application of inferential statistics to concrete situations. Topics covered include measures of location and variation, probability, estimation, hypothesis tests, and regression. (4)



Division of Graduate Studies

The Division of Graduate Studies is an all-university division which coordinates graduate level work. The university offers the following graduate level programs*:

MASTER OF ARTS IN COMPUTER APPLICATIONS

A graduate degree program designed for students whose undergraduate work was not in computer science, but who desire to develop expertise in computers with specific study in computer applications for their discipline.

MASTER OF ARTS IN EDUCATION

1. *Educational Administration*: A program intended for teachers who desire to enter the field of school administration. The student who wishes to qualify for the provisional or standard principal's credential (elementary or secondary or general) will take a major in this field and complete courses in a supporting academic area of the university. Students may major in this field without qualifying for a principal's credential.
2. *Counseling and Guidance*: A program designed primarily for students who wish to qualify as counselors in public schools (elementary and secondary), colleges, agencies, or clinics.
3. *Classroom Teaching*: A program for teachers who desire advanced work in classroom teaching. Along with the major field, the student is required to complete courses in a supporting academic area.
4. *Reading*: A program for elementary or secondary teachers who wish to achieve a concentration in reading.
5. *Educational Psychology*: A program for students who wish to achieve a concentration in educational psychology.
6. *Special Education*: A program for students who wish to achieve a concentration in special education.

MASTER OF ARTS IN SOCIAL SCIENCES

A graduate degree program with concentrations in four professional areas:

1. The *Organizational Systems* concentration emphasizes a social sciences approach to organizational theory, behavior, and change. The program enables students to become more effective in dealing with problems facing complex organizations.
2. The *Psychological Counseling* concentration provides an opportunity for students to increase their competencies in psychological assessment and individual counseling in the mental health field.
3. The *Marriage and Family Therapy* concentration emphasizes academic study, rigorous evaluation, and direct supervision of clinical competencies in order to train individuals in the scholarship and clinical practice of marriage and family therapy.
4. The *Individualized Study* concentration is designed for students who want to pursue their own personal education goals, prepare for further graduate study, or prepare for careers or career advancement in a variety of fields, ranging from public service to social science research.

MASTER OF BUSINESS ADMINISTRATION

A graduate degree program designed to provide, through education, a foundation for responsible leadership in business.

MASTER OF PUBLIC ADMINISTRATION

A graduate degree program intended to provide, through education, a foundation for responsible leadership in the management of public agencies.

MASTER OF MUSIC

A graduate degree program intended for qualified students who desire a concentration in music education, composition, performance, or conducting.

MASTER OF SCIENCE IN COMPUTER SCIENCE

A graduate program intended for students whose main interest is advanced study in computer science.

*Details of these programs, including admission requirements, procedures, degree and research requirements, are contained in the *Graduate Catalog*, which is available from the office of the dean of graduate studies.

Affiliate Resources

CHOICE

In 1984, CHOICE, the Center for Human Organization in Changing Environments, observes its fifteenth year as a community service and action-research arm of Pacific Lutheran University. The acronym, CHOICE, suggests its function and style: to initiate processes and programs both on and off campus which assist people to participate in making choices which may lead to improved quality of life.

CHOICE assists communities and organization by providing linkages between the university and the public sector and community service agencies, and by offering channels for social involvement by faculty and students.

Chief vehicle for CHOICE in pursuing its objectives is the Family and Children's Center, which is housed in the university's recently acquired East Campus. Faculty and students from many schools and departments participate in public services for the community. These include a Marriage and Family Counseling Center, "Second Wind"—an educational program for adults over 50, University Child Care Center, and others.

In the "changing environments" of the 1980s, CHOICE continues to serve as a vehicle to combine the teaching, research, and community service functions of the university.

WASHINGTON COUNCIL FOR ECONOMIC EDUCATION

The Washington Council for Economic Education is a statewide organization designed to raise the level of economic literacy among teachers and students in the Pacific Northwest. The program includes a Center for Economic Education, and is recognized nationally by the Joint Council on Economic Education. Its functions are:

1. To offer special courses to non-economics majors at PLU, especially to future teachers and to current members of the teaching profession. These courses emphasize the role of economics among the social sciences and its importance in all areas of life.
2. To develop, in cooperation with the school systems of this state, teaching plans and aids that facilitate incorporation of economics into existing curricula.
3. To provide speaking and consulting services for community

organizations interested in promoting public understanding of economic principles and issues.

The WCEE is an educational organization supported by a coalition of community groups representing education, business, labor, agriculture, and government. It operates as an independent non-profit non-partisan educational organization dedicated to the principles that each citizen's ability to recognize and objectively analyze economic issues is essential to his or her welfare and the country's progress.

KPLU-FM, NATIONAL PUBLIC RADIO

KPLU-FM 88 is licensed by the Federal Communications Commission to the University Board of Regents.

A network affiliate of National Public Radio, KPLU-FM 88 operates seven days a week, 20 hours a day, with a full-time professional staff augmented by qualified students.

KPLU-FM 88 operates at full power (100,000 watts) stereo, covering Western Washington with a fine arts format emphasizing jazz, news, and public affairs.

CENTER FOR THE STUDY OF PUBLIC POLICY

The Center for the Study of Public Policy is devoted to a better understanding by students and faculty of the public policy issues that confront contemporary society. The center functions under the auspices of the Division of Social Sciences and operates under the direction of the center committee. The center is open to all students who have an interest in the study and discussion of public policy questions.

The center sponsors activity directed at a wide variety of topics within the field of public policy. Specifically, the center underwrites student/faculty research projects, workshops, public forums, and symposia activity. In the past, these activities have been directed at topics ranging from the world food crisis to the problem of aging; from issues associated with urban development to the problems faced by women entering traditionally male-dominated professions.

In addition to its own activity, the center has fostered the development of a number of study groups. The study groups are cross-disciplinary teams that undertake activities directed at specific fields within the area of public policy.

Pre-professional Programs

HEALTH SCIENCES

A health sciences committee advises students aspiring to careers in the health sciences. During their first year of attendance at PLU, students should complete a Health Science Interest Form. (This form is available in Ivy Hall Room 102.) An appropriate adviser will then be appointed. This adviser will provide the requirements and procedures for application to the various professional schools. In addition to the brief requirements for

each area listed below, other information is available in the reserve section of Mortvedt Library (under "Health Sciences Resources").

Dentistry, Medicine, and Veterinary Medicine

The overwhelming majority of students entering the professional schools of these careers have devoted four years of study to secure the broad educational background required. This



background includes a thorough preparation in the sciences in addition to study in the social sciences and the humanities. There are no pre-professional majors but rather students should select the major which is of interest and which best prepares them for an alternative career. In addition to the general university requirements and the requirements of the student's major, the following are generally required: Biology 155, 156, 253, 254; Chemistry 115-116, 331-332 plus laboratories; Mathematics: at least one semester, 133 or higher; Physics: one year course with laboratory, 125-126 or 153-154. For exceptions or additions suggested by specific professional schools, check with your adviser.

Optometry

Although two years of pre-optometric study is the minimum required, most students accepted by a school or college of optometry have completed three years in an undergraduate college. A large percentage of students accepted by the schools and colleges of optometry have earned a bachelor's degree.

The requirements for admission to the schools and colleges of optometry vary. However, all optometry schools and colleges require at least two years of pre-optometric study which should include: Biology 155, 156, 253, 254; Chemistry 115, 116; Physics 125-126 or 153; one-half to one year of English; and one year of college mathematics (including calculus).

In addition, each optometry school has its own set of requirements. (Check with your adviser.)

Medical Technology

The minimum academic requirements for entry into clinical training as published by the national Accrediting Agency for Clinical Laboratory Sciences (NAACLS) are a minimum of 16 semester units of chemistry to include organic chemistry or biological chemistry, 16 semester units of biology to include microbiology and immunology, and one course in mathematics. The content of chemistry and biology courses must be acceptable toward a major in those fields of study or the equivalent; the mathematics requirement is met by courses recognized as prerequisites for admission to physics courses. In addition to these specific requirements, the student must have acquired a minimum of 90 semester units of academic credit before admission to the clinical program.

Although the minimum requirements for medical technology are as outlined above, many of the clinical internship programs require or strongly recommend a bachelor's degree in biology or chemistry before admission to clinical training. Therefore, a student should consider first earning a bachelor's degree in either of these majors.

The student must complete a twelve-month medical technology training program in a clinical laboratory accredited by the American Medical Association. Upon completion of this program, the student is eligible to take the medical technology certification examination given by the Board of Registry of Medical Technologists of the American Society of Clinical Pathologists and to receive the degree of Bachelor of Science in Medical Technology.

The minimum required courses for the B.S.M.T. at PLU are: Chemistry 115, 116, 321, 331, 332, 333, 334; Biology 155, 156, 253, 254, 322, 385; Mathematics 133. Very strongly recommended: Physics 125, 126, 147, 148. Also recommended: Biology 331, 346, 375, 441; Chemistry 404. The remainder of the requirements for a major in biology or chemistry must also be fulfilled.

Pharmacy

Although the pre-pharmacy requirements for individual schools of pharmacy vary (check with your adviser), the following courses are usually required: general chemistry, 1 year; organic chemistry with laboratory, 1 year; college level mathematics (may include calculus); English composition and literature, 1 year. Often required are microbiology, quantitative analysis, and introductory courses in communication arts, economics, and political science.

For example, the University of Washington School of Pharmacy has approved the following courses as being equivalent to the first two years of its 5-year program leading to the Bachelor of Science degree in pharmacy: Biology 155, 156, 253, 254, 322; Chemistry 115, 116, 331, 332, 333, 334; English 101; Communication Arts 123; Mathematics 133, 151; electives from the humanities or social sciences. Applicants who have not completed one year of high school physics will be required to complete one semester of physics. The total credits should be not less than 60 semester hours.

Physical Therapy

Acceptance to schools of physical therapy has become increasingly competitive in recent years and students are strongly encouraged to contact their adviser as early as possible and together determine the specific prerequisites for the schools they may be planning to attend.

The minimum requirement is two years of pre-professional work.

An example: Minimum prerequisites for the physical therapy program at the University of Washington: Biology 201, 205, 206; Chemistry 104, 105; Mathematics 133; Physics 125-126; Psychology 101, plus one additional course; English 101, plus one additional course; electives in the humanities and social sciences.

Students who have questions regarding health science careers other than those listed above should contact their health sciences adviser or check in the library reserve materials on "Health Sciences Resources."

PRE-LAW

Pre-law at PLU is an advising system, not a prescribed major or curriculum. A major reason for this approach is that law schools generally prefer individuals with a sound liberal education. Therefore, regardless of their major, pre-law students are encouraged to pursue a broad range of liberal arts courses. Students are advised to undertake work in economics, history, philosophy, political science, psychology, natural sciences, sociology, speech, and accounting. It is also recommended that students take one or two courses, chosen in consultation with the pre-law adviser, that will help them specifically to develop perspectives on the nature of law and the legal profession.

Students interested in law should register at the Pre-Law Center in the Department of Political Science. Information on the Law School Admission Test (LSAT), a circulating library of law school bulletins, a newsletter, and other resource materials are available. In addition, students should discuss their program with the pre-law adviser in the Department of Political Science.

THEOLOGICAL STUDIES

Pre-theological students should complete the requirements for the Bachelor of Arts degree. Besides the general degree requirements, the Association of Theological schools recommends the following:

English-literature, composition, speech, and related studies. At least six semesters.

History-ancient, modern European, and American. At least three semesters.

Philosophy-orientation in history, content, and methods. At least three semesters.

Natural Sciences-preferably physics, chemistry, and biology. At least two semesters.

Social Sciences-psychology, sociology, economics, political science, and education. At least six semesters, including at least one semester of psychology.

Foreign Languages-one or more of the following: Latin, Greek, Hebrew, German, French. Students who anticipate post-graduate studies are urged to undertake these disciplines as early as possible (at least four semesters).

Religion-a thorough knowledge of Biblical content together with an introduction to major religious traditions and theological problems in the context of the principal aspects of human culture as outlined above. At least three semesters. Students may well seek counsel from the seminary of their choice.

Of the possible majors, English, philosophy, religion, and the social sciences are regarded as the most desirable. Other areas are, however, accepted.

A faculty adviser will assist students in the selection of courses necessary to meet the requirements of the theological school of their choice. At the present time, increasing numbers of women are enrolling at selected Protestant seminaries in pursuit of the Master of Divinity degree. Consult the Religion Department chair for further information.

AIR FORCE ROTC (AEROSPACE STUDIES)

Rapidly advancing technology is daily transforming the human environment. Innovations amplify humanity's abilities to comprehend and cope with scientific and technological developments. Revolutionary advancements in weapon systems, in space technology, and in management techniques are some of the most remarkable results.

These advances are changing the officer requirements in today's Air Force. The Air Force professional officer corps must have special abilities in a wide range of skills. But whatever the speciality of individual officers, they must also be imaginative leaders and resourceful managers to succeed in their professions.

The objectives of Air Force ROTC are to motivate, educate, and commission highly qualified students for active duty as officers in the United States Air Force.

Air Force ROTC is offered to PLU students through an agreement with the University of Puget Sound. The lower division courses are open to all students and do not require a military commitment for non-AFOTC scholarship cadets. The upper division courses are open to qualified upper division and graduate students on a competitive basis.

Financial assistance, in the form of scholarships and \$100 per month subsistence, is available to qualified applicants in the Air Force ROTC. Two and three-year scholarships are available to



qualified students. The scholarships cover full tuition, books, and laboratory fees. There are also scholarship opportunities for students in nursing and pre-medicine.

Students who successfully complete the Air Force ROTC program and receive an academic degree from the university will be offered commissions as second lieutenants in the U.S. Air Force.

Additional information on the Air Force ROTC program may be obtained by writing the Professor of Aerospace Studies, University of Puget Sound, Tacoma, WA 98416, or by calling (206) 756-3264.

Faculty: Lt. Col. Pavlu, Major Allen, Captain Lorimer, Captain Proper.

The curriculum offered by this program is divided into three courses: a General Military course and a Professional Officer course taught on the University of Puget Sound campus, and a Field Training course conducted at selected Air Force bases.

The General Military Course (GMC) consists of one hour of academic instruction and one hour of military training per week each term of the freshman and sophomore years. Students are eligible to enroll in this course in their freshman year. There is no military commitment for non-scholarship cadets in the GMC.

The Professional Officers Course (POC) consists of three hours of academic instruction and one hour of military training per week each term of the junior and senior years. Graduate students are also eligible to compete for entry into the Professional Officers Course.

The Field Training Course is either four or six weeks in duration, depending upon whether the student is participating in the four or two-year program. Satisfactory completion of this course is a prerequisite for entry into the Professional Officers Course for students who have not completed the General Military Course.

A 13-hour flight instruction program is offered to senior cadets in the Professional Officers Course who are qualified for Air Force pilot training.

All students who are AFROTC scholarship cadets or are enrolled in the upper division AFROTC courses must complete a course in English composition, a course in mathematical reasoning, and a course in foreign language before graduation and commissioning.

All Air Force ROTC students are furnished Air Force uniforms and necessary textbooks for Aerospace Studies courses.

General Military Courses

110, 115 *The United States Air Force Today*

The mission, organization, weaponry of Air Force units. Strategic offensive, strategic defensive, some general purpose, aerospace support forces. (2)

210, 215 *The Developmental Growth of Airpower*

Development of airpower from the beginnings of flight into post-Vietnam era; a variety of events, elements in history of airpower stressed, especially where these provide significant examples of the impact of airpower on strategic thought. (2)

350 *Field Training*

Field training during the summer months at selected Air Force Bases for students selected for the Air Force ROTC Professional Officers Course. The areas of study include academics, junior officer training, aircraft and aircrew orientation, career orientation, survival training, base functions and environment, and physical training. (4)

Professional Officers Courses

310, 315 *Concepts of Air Force Management*

Management fundamentals, through managerial strategy and tactics and their application to decision-making, both in a civilian and military context. Leadership research, including styles of great leaders, application of leadership concepts to Air Force situations. Review of military justice system. (4)

410, 415 *National Security Forces in Contemporary American Society*

Armed Forces as an integral element of society; broad range of American civil-military relations, environmental context in which defense policy is formulated. (4)

International Programs

PLU's international programs encourage students to expand their understanding of humanity's global condition in a changing and increasingly interdependent world. Multi-focused international programs provide opportunities for on-campus study of global issues and of the world's regions, cultures, and societies. Global issues include, for example, modernization and development; global resources and trade; and peace, justice, and human rights. Cultural foci are Africa, Asia, Europe, Latin America, the Middle East, and Scandinavia, among others. Off-campus study of these issues and regions is made possible by diverse opportunities for study abroad and international student exchange.

To pursue a program in international or intercultural studies, students may enroll in courses offered by departments such as Languages, Political Science, and History, or choose among the special multi-disciplinary programs listed below which offer majors and minors in international studies.

General information about PLU's international programs is available from the Office of International Education and the Study Abroad Office.

GLOBAL STUDIES

Students interested in diverse cultures and international, global issues may undertake a multi-disciplinary major or minor program designed to reflect their geographic, thematic, or disciplinary interests.

- A. **MAJOR.** The Global Studies major is termed a "complementary" major because it is taken as a second major in addition to a regular disciplinary major. Courses are grouped into eight clusters reflecting three world regions (Asia, Europe, and the Americas) and five global or international issues (Global Resources and Technological Development; International Relations; International Trade; Society, Culture, and Traditions; War, Revolution, and Peace). For specific information see the Global Studies section of this catalog.
- B. **MINOR.** The theoretical orientation and requirements parallel those for the major and are detailed in the Global Studies section of this catalog.

Courses credited toward a minor cannot be credited toward a major. Interim and new courses approved by the Global Studies Committee may be included in the various clusters.

INTENSIVE ENGLISH LANGUAGE INSTITUTE

The Intensive English Language Institute (operated by the American Cultural Exchange) is an affiliate of PLU offering intensive English classes, which are designed to prepare international students for studies in U.S. colleges and universities. The institute is authorized to grant I-20 forms through PLU; however, admission to the institute does not constitute admission to the university, and no transferable credit is given for institute courses.

Students entering the institute are given an English placement test and, on the basis of their scores, a program of studies is planned. Ordinarily students have five hours of language instruction each day, although in some cases a less intensive schedule may be arranged. A typical IELI course load consists of classes in reading, writing, grammar, and conversation, plus an hour of language lab each day. Individual directed studies may also be arranged.

When students have attained sufficient proficiency in English to do university-level work, they are encouraged to apply to PLU (or to other colleges or universities of their choice). The IELI staff assists in placing them in a suitable academic program.

IELI courses, offered at various proficiency levels and to be selected in consultation with the institute staff, are:

- Language Laboratory (1 hour)
- Audit/Audit Review (time to be arranged)
- Grammar (1 hour)
- Conversation (1 hour)
- Writing (1 hour)
- Reading (1 hour)
- Directed Studies (time to be arranged)

SCANDINAVIAN AREA STUDIES

The Scandinavian Area Studies major is a flexible program in which the study of Scandinavia is enhanced through a cross-disciplinary approach. For specific information see the Scandinavian Area Studies section of this catalog.

STUDY ABROAD

To encourage students to expand their visions of the world, PLU makes available various opportunities to study and travel in other countries. Students are encouraged to spend the summer, semester, interim, or full academic year abroad, either in a purely academic setting or in an experiential setting. The Study Abroad Office has information on study, work, and travel in foreign countries to assist students in selecting appropriate programs. The interdependence of all nations of the world and the need to gain basic knowledge of peoples, their cultures, and their interrelationships cannot be overemphasized in the late 20th century. With this focus in mind, PLU sponsors several categories of programs.

a. PLU-sponsored programs:

(1) Independent Liberal Arts Colleges Abroad

- (a) **England:** Students may choose to spend a semester studying in London through PLU's London Program. This program is hosted by the Independent Liberal Arts Colleges Abroad (ILACA), a consortium of Pacific Northwest schools including PLU, Gonzaga University, the University of Puget Sound, Whitman College, and Willamette University. Offered in both fall and spring semesters, the London Program provides students with a study experience in one of the most exciting cities of the world. Courses taught both by Northwest professors with experience in London and by native British professors make extensive use of museums, cultural activities, and sites of London. Students live with British families and commute by subway to classes. Several excursions take students outside London for a look at other parts of England.
- (b) **Spain:** In the spring of odd-numbered years (1985, 1987, etc.), PLU, along with other schools in the ILACA consortium, sponsors a one-semester program at the University of Salamanca. This ancient city and historic center of learning provides an excellent setting for a semester designed for advanced study in Spanish language and culture. A minimum of two years of Spanish language study is required for participation. Students live with Spanish families, take special classes at the university in the morning, and attend regular University of Salamanca classes in the afternoon.
- (c) **Mexico:** In the fall of 1982, a one-semester program in Guadalajara, Mexico, began. This ILACA program is designed for students with a beginning background in the Spanish language (one year of college Spanish is required), and is an introduction to Mexican history and culture, with Spanish language classes included. Students live with Mexican families and study at the University of Guadalajara. This program is offered in the fall of even-numbered years (1982, 1984, 1986, etc.).

(2) Reciprocal Programs

PLU currently offers four reciprocal (one-for-one) exchange programs. These year-long academic programs provide a limited number of exchanges each year. In all cases, the PLU student is integrated into the local university and culture. PLU students pay normal PLU tuition fees and may use financial aid.

- (a) **Norway:** Beginning with the 1983-84 school year, PLU students may participate in an exchange program with Adger College in Kristiansand, Norway. Criteria used for selection of participants include proficiency in a Scandinavian language, a strong academic record, motivation, and personal adaptability. PLU students live in university housing and study Norwegian language and literature. This is a full academic year program.
- (b) **Sweden:** A student exchange program between PLU and the University of Linköping began in the fall of 1982. Criteria used in the selection of participants include proficiency in a Scandinavian language, a strong academic record, motivation, and personal adaptability. PLU students live in dormitories and study Scandinavian history, modern Scandinavian literature, Scandinavian political and social structure, and Swedish language. This is a full academic year program.
- (c) **People's Republic of China:** PLU students may spend a full year in the People's Republic of China through an exchange with Zhongshan University in Guangzhou. Applicants must be mature and flexible, and well prepared by course work and life experiences. PLU students live in university housing and take four courses in Mandarin Chinese as well as three courses in other areas. Students are not expected to be fluent in the Chinese language before attending, but are encouraged to study Mandarin before leaving.
- (d) **Republic of China (Taiwan):** Beginning in the 1984-85 academic year, PLU students may spend a year studying at Tunghai University, a Christian university in Taichung. Applicants must be mature and flexible, and well prepared by course work and life experiences. Fluency in the Chinese language is not required. Students may study in a variety of disciplines at Tunghai University.

- (3) **Denmark's International Studies (DIS)** provides for semester, year-long, or summer study in English in Copenhagen. The instructors are Danish, representing faculty from nearby universities and schools. This program is Europe's largest study center for American students, allowing a wide variety of course offerings in liberal arts, international business, and architecture and design. A rich immersion in Danish culture is provided through living with the Danes, daily contact with Danish faculty, and optional language instruction. PLU students may live with either a Danish family or Danish students in student residential halls. PLU credit is available directly through the DIS Program.
- (4) **Institute of European Studies (IES)** offers semester, year-long, or summer study at various centers in Europe. PLU students may choose to study in London or Durham, England; Paris or Nantes, France; Madrid, Spain; Freiburg, West Germany; Vienna, Austria; and Mexico City, Mexico. Studies include a combination of local university courses and classes taught expressly for Institute students. Courses are taught in the language of the country where the center is located, except in Vienna, and the European Common Market program in Freiburg, where instruction is in English. In all other cases, PLU students need to be conversant in the language of the country. Living arrangements vary from full room and board to independent housing. Each center allows for integration into the local culture through housing, student activities, field trips, and travel. Scholarships are available to qualified students at all IES centers.

(5) Service Learning Programs (Experiential Education).

Rather than studying abroad in a traditional classroom setting, a student may prefer to spend a semester in a "classroom without walls." Through ties with several universities and educational programs, PLU will help the student arrange an experience that combines academic pursuits with study, observation, and social service in non-traditional settings. Beginning in the spring of 1984, PLU offers a program in Britain. Service Learning in Britain provides an initial four-credit, three-week class, "The British Perspective on British History and Social Institutions." Following the class, students earn eight credits, based on their PLU Learning Contracts, by working for four months at internships throughout Britain. Students live with host families, earn a stipend, and are supervised by mentors at the internship sites. Hundreds of internships are available such as working with disabled youth in the rural Gloucestershire, stimulating community action projects in secondary schools in Edinburgh, and working with



delinquent youth at a training school in Northern Ireland.

(6) **International Cooperative Education (Work/Study).**

A unique opportunity to become acquainted with the work, language, and culture of a foreign country is provided through the International Cooperative Education Program. At present, ten-week summer work stations are available in Switzerland, Belgium, France, Germany, Turkey, and Norway, and on the Canary Islands.

Students undergo a careful screening process and must have completed at least one year of foreign language coursework. If accepted, participants are provided a work contract for their European stay and depart only after securing both employment and housing.

Participants take a 2-credit International Cooperative Education course in the spring as preparation for the summer. During the ten-week program, which normally extends from the end of June to early September, participants complete a 4-credit independent study, to be supervised by PLU instructors. The student's monthly salary depends on the position and the country.

The International Cooperative Education Program offers a variety of opportunities. Positions are frequently available in the following areas: supermarkets, department stores, resort restaurants and hotels, hospitals and sanatoriums, theaters, agricultural firms, and automotive plants.

Housing is usually provided. Some work situations require that food be purchased by the participant.

Participants must pay for their air fare, carry health and accident insurance, and have sufficient financial reserves to live comfortably until their initial paycheck arrives.

For specific information, see the director of the Study Abroad Office.

(7) **Study Tours.**

(a) **Interim.** PLU also emphasizes travel courses during the January interim. Preliminary notices about the tours are available in April or May of each year, and the final sign-up is in November. Students should contact the instructor of each tour or the interim director for more information.

(b) **Summer.** PLU often offers travel courses during the summer. In addition, students are encouraged participate in those offered through a consortium of Northwest schools, the Pacific Northwest International/Intercultural Education Consortium, of which PLU is a member. Credits are earned through PLU, although the instructors of the tours are from the other participating Northwest schools. Also on file in the Study Abroad Office is information on summer study and travel programs around the world.

- b. In addition to the PLU-sponsored programs, there are countless other opportunities for study abroad. Many U.S. colleges and universities have programs throughout the world, and PLU students may study through these programs by special arrangement. Information and application forms for several programs are available in the Study Abroad Office. Credits awarded by an accredited U.S. college or university are transferable to PLU. However, PLU financial aid cannot be transferred to other colleges. Credits transferred to PLU after a study abroad experience sponsored by a U.S. accredited college or university will be recorded with a letter grade. Credits for studies directly in a foreign university will be recorded as pass/fail.

- c. PLU students who plan to study directly in a foreign school (not in a program sponsored by a college in the U.S.A.) must be sure to file a letter of intent with the study abroad director and with the chair of their major department *before* leaving PLU. This letter must include what classes will be taken, where and for what length of time they will study abroad, and how the foreign experience will relate to their academic program. On the basis of this information, plus a record of lectures attended and examinations completed, academic credit may be given by PLU. Students are advised to save all papers and other materials relating to coursework taken abroad. These efforts are necessary because foreign schools do not provide transcripts. All credits transferred to PLU will be pass/fail. PLU reserves the right to require examinations covering the subjects studied.

Foreign Languages

It is recommended that, before embarking, students acquire a solid foundation in the language of the country where they will be studying. Students may, with the assistance of the chair of the Department of Languages and the study abroad director, prepare a written request for academic credit in recognition of their advanced facility in a foreign language.

Financial Aid

Financial aid is available to qualified students who are studying through PLU-sponsored programs. Government loans can apply toward affiliated programs and other specially arranged programs.

General Information

In all cases, a student who is considering study in another country should first discuss plans with the study abroad director and, before departing, complete a leave of absence form from the Office of the Registrar. This will facilitate return to PLU at the conclusion of a foreign study program.

Attendance at a foreign university does *not* waive graduation requirements of PLU.



Interim Program

The "interim" term of four weeks in January provides opportunity for focused and intensive study of a single subject or topic. Students are encouraged to choose courses outside their major fields, and together with their instructors to develop their potential for creativity and to broaden their intellectual horizons by exploring unfamiliar areas of study as well as by trying ways of learning or teaching to which they may not be accustomed. The range of academic offerings is wide and includes a variety of specially-designed courses in all major disciplines, as well as a number of interdepartmental courses and studies abroad. A separate catalog is published for the interim term.

The theme of the 1985 interim is "Culture and Technology." The focus will be on technological developments and their impact on cultures around the world. A complete interim catalog will be available in the fall of 1984. The preliminary listing of courses to be offered in the 1985 interim is as follows:

ANTHROPOLOGY

- 309 **Native Peoples of the Northwest Coast: Culture and Technology (4)**

ART

- 302 **Chinese Painting and Its Cultural Background (4)**
 304 **The Arts and the Art of Living in the Contemporary World: Culture vs. Technology (4)**
 305 **Michelangelo (4)**
 315 **Glass Technology (4)**
 319 **Slide Photography: Individual Projects (4)**

BIOLOGY

- 302 **Fish and Fisheries of the Northeast Pacific (4)**
 304 **Models in Biology (4)**
 306 **Forest Ecology (4)**
 310 **Human Heredity (4)**
 315 **The Impact of Microbiology: From Plagues to Possibilities (4)**
 407 **Molecular Biology (4)**

BUSINESS ADMINISTRATION

- 303 **Career Development: Employment in 1987 (4)**
 304 **Men and Women in Business (4)**
 305 **Managers at Work (4)**
 308 **Personal Financial Management for Everyone (4)**
 309 **The Time of Your Life (4)**

- 311 **Business: Communicating What You Mean (4)**
 315 **East Meets West, West Meets East (4)**
 318 **Business: A Novel Approach (4)**
 319 **Law For Accountants (4)**
 455 **Business Policy (4)**
 456 **Honors Seminar: Policy in Thought and Action (4)**
 535 **Legal Aspects of the Management Process (4)**
 585 **Managing Your Taxes (4)**

CHEMISTRY

- 115 **General Chemistry (4)**
 303 **Mind, Body, and Behavior (2)**

COMMUNICATION ARTS

- 302 **News Media in Other Media (4)**
 304 **Growing Up Young: An Examination of Youth (4)**

COMPUTER SCIENCE

- 110 **BASIC (2)**
 144 **Introduction to Computer Science (4)**
 316 **Computers and Society (4)**
 317 **Intelligent Computers (4)**

EARTH SCIENCES

- 305 **Mineralogy (4)**

ECONOMICS

- 150 **Principles of Economics (4)**
 304 **The Economics of Professional Sports (4)**
 316 **Cooperatives and Worker-Owners Firms: Past, Present, and Future (4)**

EDUCATION

- 318 **Face to Face: Interpersonal Styles and Skills (4)**
 319A **School Practicum: Elementary Level (4)**
 319B **School Practicum: Secondary Level (4)**
 319C **School Practicum: Reading (4)**
 319D **School Practicum: Non-Local (4)**

EDUCATIONAL PSYCHOLOGY

- 583 **Current Issues in Exceptionality (2 or 4)**

SPECIAL EDUCATION

- 191 **Observation in Special Education (1)**
 303 **Applications of Computer Technology with the Handicapped (2)**
 313 **Teaching Reading to the Handicapped Student in the Mainstream (2 or 4)**
 316 **Education and Management of Students with Developmental Disabilities (4)**



- 399 Practicum in Special Education (1-4)
 406 Curriculum for Exceptional Students in the
 Secondary School (3)

ENGLISH

- 201 Intermediate Composition (4)
 301 Shakespeare in Performance (4)
 303 Book Collecting and Children's Book
 Illustration (4)
 304 Thomas More (4)
 305 The Twenties: The Heritage of the Jazz
 Age (4)
 306 Whodunit (4)
 307 Moby Dick (1)
 311 The Best of The Brontes: Jane Eyre and
 Wuthering Heights (1)
 312 Letterpress Printing: Tradition and Craft (4)
 314 Modern Russian Literature in Translation:
 1830–Present (4)
 342 Twentieth Century American Poetry (4)

HISTORY

- 302 Chinese Painting and Its Cultural
 Background (4)
 306 History of Women Minorities through
 American Film (4)
 316 Recent Jamaican History: Social Change,
 Development, and Appropriate Technology
 (4) (off-campus)
 352 The American Revolution (4)

LANGUAGES

- 301 Intensive French: An Introduction to the
 French Language and People (4)
 302 The Silent World: An Experience in Deaf
 Awareness (4)
 303 French, Technically Speaking (1)
 305 Norwegian Folk Arts (4)
 308 Deutsches Praktikum (4)
 314 Ancient Greek (4)

MATHEMATICS

- 302 History of Mathematics (4)

MUSIC

- 305 Beginner's Band (4)
 309 London! A Cultural Tour (4) (off-campus)
 311 Fulfill Your Wildest Dream: Learn to Play the
 Violin in Twelve Easy Lessons (2)
 312 Music for a New Orchestra (4)
 401 Private Instruction (1)

NURSING

- 310 Meeting the Challenges of an Aging
 Population (1-2)
 311 Surgical Intervention (4)
 313 Pathophysiology: Cultural and Technological
 Implications (4)

PHILOSOPHY

- 101A Philosophical Issues: Constructing a
 Worldview (4)
 101B Philosophical Issues: Philosophy and
 Religious Sects (4)
 301 Evidence and Explanation: The JFK
 Assassination (4)

- 304 High Technology—Truth and
 Consequences (4)
 385III Health Care Ethics: Parenting, Infants, and
 Children (1)
 395 Science: Natural, Social, and Pseudo (4)

PHYSICAL EDUCATION

- 100 Personalized Fitness Program (1)
 202 Beginning Golf (1)
 204 Bowling (1)
 208 Skiing (1)
 210 Slimnastics (1)
 213 Personal Defense (1)
 225 Co-ed Volleyball (1)
 227 Weight Training (1)
 260 Food and Health (1)
 302 Principles of Strength Training (2)
 304 The Olympic Games and Amateur Sports
 Ideals (4)
 306 The Expedition Experience (4)
 307 Sport Psychology (4)
 308 Sports Motivation (2)
 310 Dance Technique and Choreography (4)
 311 Family Centered Childbirth (4)
 312 Technological Woman: Implications for the
 Workplace (4)
 313 Ergogenic Aids and the Athlete (2)

PHYSICS AND ENGINEERING

- 305 The Art of Electronics (4)

POLITICAL SCIENCE

- 302 Political Science Fiction and Fantasy (4)
 315A Washington Winterim '85: After the
 Inauguration: Continuity or Change (4)
 (off-campus)
 315B Washington Winterim '85: The Legal
 System and Legal Careers (4) (off-campus)

PSYCHOLOGY

- 309 Psychology and the Law (4)
 318 Involvement in a Therapeutic
 Community (4)
 355 Environmental Psychology (4)

RELIGION

- 241 The Bible in the British Museum and
 English Cathedral (4) (off-campus)
 302 Does Archaeology Prove the Bible? (4)
 303 Studies in Church Ministry: An Urban
 Experience and Perspective (4)
 318 Discourse on Power: As the Victim of
 Technological Discipline—Readings in
 Michael Foucault (4)
 361 Philosophical and Religious Traditions
 of India (4)
 367 Judaism (4)

SOCIAL WORK

- 310 Meeting the Challenges of an Aging
 Population (1-2)

SOCIOLOGY

- 304 The Social Theories of Karl Marx (4)
 312 The Technological Woman: Implications
 for the Workplace (4)

STATISTICS

- 231 Introductory Statistics (4)



The Board of Regents

OWNERSHIP, SUPPORT, GOVERNMENT

The university is owned and operated by Pacific Lutheran University, Inc., a Washington corporation whose purpose is to maintain a Christian institution of higher learning. Membership of this corporation coincides with membership of the North Pacific District of The American Lutheran Church and the membership of that portion of the ALC's Rocky Mountain District which is located in Idaho and Montana, west of the Continental Divide. The annual meeting of the corporation is held in conjunction with the annual convention of the North Pacific District.

Voting members include the members of the Board of Regents, and the pastors and lay delegates of congregations in the constituent area. The university receives regular financial support from The American Lutheran Church, the Pacific Northwest Synod of the Lutheran Church in America, and the Pacific Lutheran University Alumni Association. In addition to church assistance, the university receives considerable support from individuals, organizations, and businesses throughout the nation and world.

The policy-making and governing body of the university is the Board of Regents. On the basis of recommendations made by the president, it charts a course for the development of the total program of the university and strives to provide essential funds.

The university corporation's constitution provides for not more than 30 regents elected for three-year terms. Fifteen regents represent the North Pacific and Rocky Mountain Districts of The American Lutheran Church, six are chosen by the Pacific Northwest Synod of the Lutheran Church in America, three represent the PLU Alumni Association, and not more than six regents-at-large are chosen by the Board of Regents. The president of the university, the president of the North Pacific District (ALC), and the president of the Pacific Northwest Synod (LCA), are regents by virtue of their position. The student body and the faculty have non-voting representatives who meet with the board.



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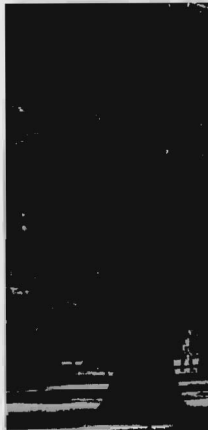
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The Pacific Northwest Synod of the Lutheran Church in America has accepted Pacific Lutheran University as one of the institutions of higher education which it endorses and supports. The Synod has representation on the university's Board of Regents, but does not share ownership of the institution.



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Barbara Phillips	<i>Administrative Assistant</i>
Cynthia Mahoney	<i>Continuing Nursing Education Coordinator</i>
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Mark Duris	<i>Associate Director of Financial Aid</i>
Kay Soltis	<i>Associate Director of Financial Aid</i>
Kaaren Roe	<i>Financial Aid Counselor</i>

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Loleta G. Espeseth	<i>Associate Registrar</i>
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Camille Eliason	<i>Transfer Coordinator</i>
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Wanda Wentworth	<i>Assistant Director</i>
Robert K. Menzel	<i>Director, CHOICE</i>
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Barbara Barenz	<i>Director, Cooperative Education</i>
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Peggy Sargeant	<i>Counselor; Testing Coordinator</i>
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Carlyn Wold	<i>Nurse</i>
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Teresa Garrick	<i>Assistant Director for Student Activities</i>



The Faculty

WILLIAM O. RIEKE, 1975-, *President*; B.A., Pacific Lutheran University, 1953; M.D., University of Washington School of Medicine, 1958.

SEIICHI ADACHI, 1967-, *Associate Professor of Psychology; Counselor, Counseling and Testing Services*; B.A., Jamestown College, 1946; B.D., McCormick Seminary, 1951; M.A., Columbia University-Union Theological Seminary, New York, 1957; Ed.D., Teachers College, Columbia University, 1960.

HARRY S. ADAMS, 1947-51, 1962-, *Professor of Physics*; B.S., M.S., Kansas State University, 1945, 1947; Ph.D., University of Minnesota, 1962.

SHIRLEY E. AIKIN, 1974 -, *Assistant Professor of Nursing*; B.S.N., B.A., M.A., Pacific Lutheran University, 1971, 1971, 1978.

ANGELIA G. ALEXANDER, 1971-, *Professor of Biology*; B.S., Juniata College, 1962; M.A., University of California, Davis, 1966; Ph.D., University of Washington, 1979.

MERRILY J. ALLEN, 1982-, *Instructor of Nursing*; B.S., University of Washington, 1959.

CHARLES D. ANDERSON, 1959-, *Professor of Chemistry, Regency Professor, 1974-75*; B.A., St. Olaf College, 1952; A.M., Ph.D., Harvard University, 1954, 1959.

DANA D. ANDERSON, 1984-, *Assistant Professor of Psychology*; B.A., Antioch College, 1971; M.A., Ph.D., Ohio State University, 1974, 1981.

ERNEST M. ANKRIM, 1976-, *Associate Professor of Economics*; B.S., Willamette University, 1972; M.S., Ph.D., University of Oregon, 1975, 1976.

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DAVID M. ATKINSON, 1976-, *Associate Professor of Political Science; Dean, Division of Social Sciences*; B.A., University of Puget Sound, 1965; Ph.D., University of Maryland, 1972.

***D. STUART BANCROFT**, 1967-68, 1971-, *Associate Professor of Business Administration*; B.S., M.B.A., Arizona State University, 1963, 1965; M.A., Ph.D., University of Pennsylvania, 1971, 1973.

HOWARD B. BANDY, 1984-, *Professor of Computer Science*; B.S., University of Wisconsin, Milwaukee, 1969; M.S., Ph.D., Case Western Reserve University, 1971, 1972.

STEPHEN E. BARNDT, 1978-, *Associate Professor of Business Administration*; B.S., Washington State University, 1957; M.B.A., Ph.D., Ohio State University, 1967, 1971.

J. THADDEUS BARNOWE, 1977-, *Associate Professor of Business Administration*; B.A., University of San Francisco, 1966; M.A., Ph.D., University of Michigan, 1971, 1973.

MICHAEL D. BARTANEN, 1979-, *Assistant Professor of Communication Arts*; B.A., M.A., Western Washington University, 1974, 1976; Ph.D., University of Southern California, 1980.

KENNETH E. BATKER, 1966-, *Professor of Mathematics*; B.A., Wartburg College, 1957; M.A., Ph.D., University of Colorado, 1961, 1971.

MYRA J. BAUGHMAN, 1970-, *Associate Professor of Education*; B.A., Pacific Lutheran University, 1962; M.Ed., Western Washington University, 1969; Ed.D., University of Nebraska, Lincoln, 1975.

WILLIAM BECVAR, 1973-, *Associate Professor of Communication Arts*; B.A., University of Northern Iowa, 1961; M.A., State University of South Dakota, 1964; Ph.D., University of Kansas, 1975.

LUTHER W. BEKEMEIER, 1976-, *Vice President for Development*; B.A., M.Div., Concordia Seminary, St. Louis, 1949, 1973.

STEVEN R. BENHAM, 1982-, *Assistant Professor of Earth Sciences*; B.S., Washington State University, 1968; M.A., Ph.D., Indiana University, 1971, 1979.

PAUL F. BENTON, 1969-, *Associate Professor of English*; B.A., Whitworth College, 1965; Ph.D., Princeton University, 1970.

CHARLES A. BERGMAN, 1977-, *Associate Professor of English*; B.A. (Economics), B.A. (English), University of Washington, 1969, 1970; M.A., Ph.D., University of Minnesota, 1973, 1977.

JACK R. BERMINGHAM, 1983-, *Assistant Professor of History*; B.A., M.A., California State University, Northridge, 1972, 1973; Ph.D., University of California, Santa Barbara, 1979.

ELI BERNIKER, 1982-, *Assistant Professor of Business Administration*; B.S., Wayne State University, 1961; Ph.D., University of California, Los Angeles, 1982.

ARTURO BIBLARZ, 1977-, *Associate Professor of Sociology*; B.A., M.A., Ph.D., University of California, Los Angeles, 1955, 1960, 1968.

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JOANNE E. C. BROWN, 1983-, *Assistant Professor of Religion*; A.B., Mount Holyoke College, 1975; M. Div., Garrett Evangelical Theological Seminary, 1978; Ph.D., Boston University, 1983.

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JOHN T. CARLSON, 1975-, *Associate Professor of Biology*; B.A., Carleton College, 1966; Ph.D., University of Minnesota, 1976.

MARYIVA CARPENTER, 1974-, *Assistant Professor of Nursing*; B.S., Whitworth College, 1956; M.S., Syracuse University, 1960.

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DAVIS W. CARVEY, 1971-, *Professor of Business Administration*; B.B.A., M.B.A., Pacific Lutheran University, 1965, 1968; D.B.A., Texas Tech University, 1972.



GARY A. CHASE, 1970-, *Associate Professor of Physical Education*; B.S., M.S., Washington State University, 1962, 1964.

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KENNETH E. CHRISTOPHERSON, 1958-, *Professor of Religion*; B.A., Augustana College, Sioux Falls, 1946; B.Th., Luther Theological Seminary, 1950; Ph.D., University of Minnesota, 1972.

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***ROY W. CLARK**, 1978-, *Associate Professor of Engineering*; B.S., St. Lawrence University, 1973; M.S., Eng.Sc.D., Columbia University, 1975, 1978; M.B.A., Pacific Lutheran University, 1984.

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EVELYN I. COOMBE, 1981-, *Associate Professor of Nursing*; B.S., University of Colorado, 1955; M.S., University of Washington, 1956.

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KENNETH W. CUBBAGE, 1980-, *Associate Professor of Business Administration*; B.B.A., M.B.A., University of Washington, 1952, 1957; D.B.A., University of Colorado, 1968; C.P.A., State of Washington.

DAVID P. DAHL, 1969-, *Associate Professor of Music*; B.A., Pacific Lutheran University, 1960; Associateship, American Guild of Organists, 1961; M.A., University of Washington, 1962.

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LINDA A. SIEGELMAN, 1982-, *Assistant Professor of Education*; B.S., M.Ed., University of Texas, El Paso, 1972, 1977; Ph.D., University of Texas, Austin, 1982.

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CARL D. SPANGLER, 1961-62, 1963-, *Associate Professor of Languages (French)*; A.B., Grove City College, 1958; M.A., Pennsylvania State University, 1961; Ph.D., University of Minnesota, 1979.

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CHRISTOPHER H. SPICER, 1978-, *Associate Professor of Communication Arts*; B.A., University of Virginia, 1970; M.A., Ph.D., University of Texas, 1975, 1978.

RICHARD J. SPILLMAN, 1981-, *Associate Professor of Computer Science*; B.A., Western Washington University, 1971; M.A., University of Utah, 1975; Ph.D., Utah State University, 1978.

MAREN C. STAVIG, 1979-, *Adjunct Professor of Nursing*; B.A., Augustana College, Sioux Falls, 1971.

JOAN D. STIGGELBOUT, 1973-, *Assistant Professor of Nursing*; B.S.N., Wagner College, 1954; M.N., University of Washington, 1972.

ROBERT L. STIVERS, 1973-, *Professor of Religion*; B.A., Yale University, 1962; M.Div., Union Theological Seminary, New York, 1969; Ph.D., Columbia University, 1973.

DUANE D. SWANK, 1970-, *Professor of Chemistry*; B.S., Washington State University, 1964; Ph.D., Montana State University, 1969; M.B.A., Pacific Lutheran University, 1982.

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DONALD R. WENTWORTH, 1972-, *Professor of Economics and Education*; B.S., M.A., Ph.D., University of Minnesota, 1965, 1970, 1972; M.A., University of Illinois, 1971.

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DAVID C. YAGOW, 1976-, *Deputy Provost*; B.A., Concordia Senior College, Fort Wayne, 1965; M.Div., Concordia Seminary, St. Louis, 1969.

CHANG-LI YIU, 1973-, *Associate Professor of Mathematics*; B.S., Tunghai University, 1962; M.S., Tsinghua University, 1965; Ph.D., Columbia University, 1972.

CHARLES D. YORK, 1981-, *Assistant Professor of Social Work*; B.A., Washington State University, 1966; M.S.W., California State University, Fresno, 1968; Ph.D., Purdue University, 1980.

GREGORY L. YOUTZ, 1984-, *Assistant Professor of Music*; B.A., B.M., University of Washington, 1980; M.M., D.M.A. cand., University of Michigan, 1982, 1984.



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† **DWIGHT J. ZULAUF**, 1949-53, 1959-, *Professor of Business Administration, Regency Professor*; 1972-73; B.S., University of Oregon, 1948; M.S., Columbia University, 1949; Ph.D., University of Minnesota, 1965; C.P.A., State of Washington.

***Sabbatical Leave**, 1984-85.

****Phased Retirement Program**.

† **Leave of Absence**, 1984-85.

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FAYE M. ANDERSON, 1981-, *Director of Special Projects in the Division of Social Sciences*; B.A., University of California, Los Angeles, 1961.

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LUCILLE GIROUX, 1960-, *President's Executive Associate*; B.A., Jamestown College, 1947.

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NAN NOKLEBERG, 1969-, *Education Placement Director and Fifth Year Adviser*; B.A., M.A., Pacific Lutheran University, 1953, 1977; School Administration, University of Washington, 1957.

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Elvin Martin Akre, 1937; 1970, *History*

Miriam Ruth Beckman, 1964; 1973, *Reference Librarian*

W. Harold Bexton, 1965; 1976, *Psychology*

Grace Blomquist, 1939; 1976, *English*

Roy E. Carlson, 1962; 1983, *Physical Education*

Irene O. Creso, 1955; 1971, *Biology*

J. E. Danielson, 1960; 1969, *Director of Admissions*

Emmet E. Eklund, 1964; 1982, *Religion*

Gordon O. Gilbertson, 1954; 1984, *Music*

Arnold Jasper Hagen, 1955; 1971, *Education*

Philip Enoch Hauge, 1920; 1968, *Education*

Olaf Melvin Jordahl, 1940; 1969, *Physics*

Theodore O. H. Karl, 1940-42, 1948; 1978, *Communication Arts*

Anne Elise Knudson, 1946; 1970, *English*

Harold J. Leraas, 1947; 1974, *Biology*

Gunnar Johannes Malmin, 1937; 1969, *Music, Latin and Norwegian*

Katharine Monroe, 1967; 1975, *French*

Robert A. L. Mortvedt, 1962; 1969, *President*

Alice J. Napjus, 1963; 1975, *Education*

Milton L. Nesvig, 1947; 1980, *Vice President*

Frederick Lawrence Newnham, 1950; 1969, *Music*

Robert C. Olsen, 1947; 1973, *Chemistry*

Clifford O. Olson, 1929; 1948, *Physical Education*

Burton T. Ostenson, 1947; 1977, *Earth Sciences*

Kelmer Nelson Roe, 1947; 1967, *Religion and Greek*

Josef Emil Running, 1948; 1961, *Mathematics*

Lynn S. Stein, 1961, 1981, *Education*

Doris G. Stucke, 1967; 1983, *Nursing*

Paul G. Vigness, 1956; 1965, *Religion and History*

Margaret Wickstrom, 1951; 1978, *Religion, Director, Foreign Students and Special Programs*

Rhoda Hokenstad Young, 1939; 1968, *Physical Education*

FACULTY STANDING COMMITTEES AND OTHER UNIVERSITY COMMISSIONS AND BOARDS

The president is an advisory member of all committees.

Artist Series: 3 faculty, 3 advisory members.

Athletic: 3 faculty, 3 advisory members.

Campus Ministry: 3 faculty, 2 advisory, 1 student advisory member.

Committee on Admission and Retention of Students: 4 faculty, 5 advisory members.

Committee on Committees: 3 faculty members.

Committee on Student Standards: 3 faculty, 1 advisory members.

Computer Committee: 4 faculty, 3 advisory, 2 student advisory members.

Educational Policies: 8 faculty, 1 advisory, 2 student advisory members.

Faculty Affairs: 6 faculty, 4 advisory, 3 faculty representatives to Board of Regents.

Interim: 6 faculty, 2 students, Interim Director (non-voting) members.

Judiciary: 3 faculty members.

Lecture and Convocation: 3 faculty, 3 students, 3 advisory members.

Publications: 3 faculty, 3 advisory members.

Rank and Tenure: 7 faculty (4 tenured, 3 non-tenured), 1 advisory, 2 student advisory members.

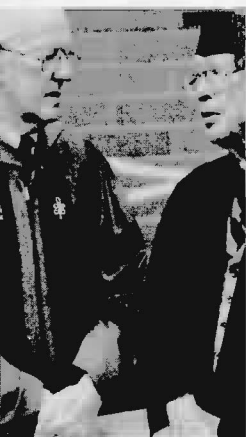
Student Activities and Welfare: 3 faculty, 3 students, 3 ex-officio members.

University Committee on Admission and Retention of Students: 4 faculty, 3 students, 5 advisory members.

University Campus Ministry Council: 3 faculty, 6 students, 2 administrators.

University Student Publications: 3 faculty, 4 students, 6 advisory members.

University Center Board: University Center Director, 4 students, 2 faculty, 1 advisory members.



PART-TIME LECTURERS 1983-84**DIVISION OF HUMANITIES****English**

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 Larry Blades
 T. Leslie Elliott
 Gregory Johnson
 Jack LeNoir
 Gloria Martin
 Katharine Monroe
 Timothy Sherry

Languages

Timm Menke

Philosophy

David Adams
 Charles Rich

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Judith Carr
 Connie Peters

Mathematics & Computer Science

Celine Dorner
 Dennis Fatland
 Ingrid Gintz
 C. Lennard Nelson
 Emanuel Salazar, Jr.
 Richard Snyder

DIVISION OF SOCIAL SCIENCES**Economics**

Gary Holman

History

Lisa Hawkins

Political Science

James Larsen
 Thomas Rekdal

Psychology

Stephen Hirsch
 Vladimir Nacev
 Roma Safranek
 S. Erving Severtson

Social Work

Richard Fitzgerald
 Ted Johnstone
 Ronald Lewis
 Larry Martin
 Larry Sanderlin
 Patrick Sheehy
 Willie Wooten

Sociology & Anthropology

Daniel Pearson

SCHOOL OF THE ARTS**Art**

Penny Fishbeck
 Mark Gulsrud
 Michael Lacey
 Barbara Minas
 Gail Morrison

Communication Arts

Michael Arndt
 Becki Snellenberg

Music

David Asplund
 Wayne Bloomingdale
 Phillip Brink
 Zart Dambourian Eby
 Brunetta Mazzolini Graham
 Bruce Grainger
 Arthur Grossman
 Jane Harty
 David Johnson
 Sandra Knapp
 Robin Knutson
 Randall McCarty
 Patrick Michel
 Jane Moore
 Rebecca Nissen
 Corinne Odegard
 Jessica Papkoff
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 Normand Poulshock
 Richard Pressley
 Bernard Shapiro
 Dorothy Shapiro
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 Pam Bergman
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 Leonard Guss
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 John James
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 Charles Purdy
 Edryce Reynolds
 Carolyn Schultz
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SCHOOL OF EDUCATION

Robert Cook
 Phyllis Gamas
 Sylvia Hagmann
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 Judith Hyden
 Connie Kubista
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 Arthur Larson
 Mark Long
 Layne Nordgren
 Helmi Owens
 Jerry Ramsey
 Ruth Reim
 Darrell Smith
 Lynn Stein
 Gaylord Timblin
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SCHOOL OF PHYSICAL EDUCATION

Ron Campbell
 Deborah Carter
 Rick Kapala
 Gary Nicholson
 Carolyn Phillips
 James Phillips
 Sabrina Pingrey
 Jerry Poppen
 Donald Ryan
 Scott Westering
 Bonnie Whitmore



The Collegium

THE COLLEGIUM

In 1974 the Board of Regents established The Collegium. Included among the colleagues are community and national leaders, alumni, faculty, parents, and other distinguished persons.

Colleagues participate in the development of the university in several ways. Principally through meetings and contacts with faculty members, they acquire an understanding of the philosophy, plans, and objectives of the university. They, in turn, share this understanding with others, serving as representatives of the university in cities where they reside and in their respective business and professional communities. In addition, the colleagues assist in generating financial resources for future development.



MEMBERS OF THE COLLEGIUM

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 MR. JEROLD L. ARMSTRONG, Joliet, IL
 DR. CARL BENNETT, Bellevue
 MR. HARRY BERRY, Tacoma
 DR. RICHARD BLANDAU, Seattle
 MRS. NATHALIE BROWN, Tacoma
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 DR. WALTER CAPPS, Santa Barbara, CA
 DR. DIPTIMAN CHAKRAVARTI, Seattle
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 MR. TOM CROSS, Tacoma
 DR. JØRGEN DAHLIE, Vancouver, B.C.
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 DR. GEORGE E. KENNY, Seattle
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Application Form

SECTION I Beginning Freshman <input type="checkbox"/> Transfer <input type="checkbox"/> PLEASE TYPE FOR PRINT		101580		(Please remit \$25.00 non-refundable application fee with application.)	
1a. Application to (Name of College or University) Pacific Lutheran University Tacoma, Washington 98447			1b. For admission to (check one term) Fall <input type="checkbox"/> Spring <input type="checkbox"/> Summer-Fall <input type="checkbox"/> 19 ____ Winter <input type="checkbox"/> Summer only <input type="checkbox"/> January Interim <input type="checkbox"/>		
2. Name Last First Middle <input type="checkbox"/> Male <input type="checkbox"/> Female		3. Former Name (if previous academic records under another name)		4. Social Security Number	
5a. Mailing Address (until) Number and Street City State Zip			5b. Phone (include area code)		
6a. Permanent Address if different Number and Street City State Zip			6b. Phone (include area code)		
7a. Birthdate Birthplace	7b. Washington resident? Yes <input type="checkbox"/> No <input type="checkbox"/>	7c. Length of latest residence in Washington From ____ / ____ to ____ / ____ month yr. month yr.		8a. Country of Citizenship if not U.S.A.	8b. Type of visa
9a. Are you a military veteran? Yes <input type="checkbox"/> No <input type="checkbox"/>	9b. Months of Active Duty?	9c. Separation Date	9d. Are you the child of a deceased veteran? Yes <input type="checkbox"/> No <input type="checkbox"/>	10. Religious preference (optional)	
11. Ethnic origin (optional) <input type="checkbox"/> American Indian <input type="checkbox"/> Asian American <input type="checkbox"/> Black American		<input type="checkbox"/> Chicano, Mexican American, or other Spanish surname <input type="checkbox"/> White American <input type="checkbox"/> Other _____			
12. Physical handicap (optional) Do you have a physical handicap? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, what is the extent of your handicap? _____ This information is being requested on a voluntary basis and will remain confidential. Refusal to provide this information will not affect an admissions decision.					
13a. Have you ever applied for admission to the institution to which you are now applying? Yes <input type="checkbox"/> No <input type="checkbox"/> Year ____ Term ____		13b. Have you previously attended this institution? Yes <input type="checkbox"/> No <input type="checkbox"/> Days <input type="checkbox"/> Extension <input type="checkbox"/> Evenings <input type="checkbox"/> Correspondence <input type="checkbox"/>		14a. High school attending or last attended	
14b. Location of high school Date of graduation City State		14c. If you do not intend to graduate from high school, indicate highest grade completed and last year attended Grade ____ Year ____ G.E.D. tests taken? ____ When ____			
15. List all colleges/universities in order of attendance (no exceptions). If still enrolled in a college, indicate leaving date: (mo.)(yr.)					
Institution		City		State	
		Dates attended		Degrees or diplomas	
		mo. yr.		mo. yr.	
1. _____		From ____ To ____		_____	
2. _____		From ____ To ____		_____	
3. _____		From ____ To ____		_____	
16. If now enrolled in high school, list all senior courses for which grades are not shown on the current transcript or WPCT report. If enrolled in college, list courses and credits yet to be completed before transfer. PLEASE COMPLETE.				17. Indicate your educational objective at the school to which you are applying. <input type="checkbox"/> First Bachelor's degree <input type="checkbox"/> Second Bachelor's degree <input type="checkbox"/> Courses for personal enrichment <input type="checkbox"/> Other (specify) _____	
18a. Intended major area of study			18b. If undecided, what subject area or career interests you?		
19a. Name of father or legal guardian Living? <input type="checkbox"/> Yes <input type="checkbox"/> No			20a. Name of mother or legal guardian Living? <input type="checkbox"/> Yes <input type="checkbox"/> No		
19b. Address (Number and Street) (City) (State) (Zip)			20b. Address if different from father's		
19c. Colleges attended by father Degrees			20c. Colleges attended by mother Degrees		

21. List your significant school and community activities and awards.

22. Describe any special circumstances which you believe should be considered in connection with this application (attach additional page if needed).

23. Do you plan to apply for college residence hall accommodations?
 Yes No
 If yes, you should contact the Housing Office of the specified college or university. See "Residential Life" under STUDENT LIFE.

24. Do you plan to apply for financial aid from this institution?
 Yes No
 If yes, you should contact the Office of Financial Aid of the specified college or university. A financial aid information request card can be obtained from Washington high school counselors.

25. I understand failure to submit complete official transcripts from all schools, colleges, or universities attended may result in the denial of this application or my subsequent dismissal from this institution. I certify that to the best of my knowledge, all statements I have made in this application are complete and true.

NAME OF APPLICANT (print)	SIGNATURE OF APPLICANT	Date
---------------------------	------------------------	------

BEGINNING FRESHMEN must complete section one and leave this application with their high school counselor or principal, who will complete section two and forward it to the Office of Admissions of the institution named herein. TRANSFER APPLICANTS NEED NOT complete section two, but should forward the application to the appropriate Office of Admissions and have the registrar of each college or university previously attended send an official transcript to the Office of Admissions. Some Washington colleges and universities require transfer applicants to submit a high school transcript. Check the admissions information section of undergraduate catalogs for this requirement.

SECTION II
(Beginning freshmen only)
 To be completed by high school official.
 Please complete the following, enclose an official transcript and forward to the institution to which the candidate is applying. Washington high schools may substitute the Washington Pre-College Test Data Sheet if the student has not completed the first term of grade 12. In case the applicant will need special consideration, a transcript should be included with the WPC T Data Sheet.

This will certify that the student named above was will be was not graduated _____ month _____ year

He/she has a grade point average of _____ and ranks _____ in a class of _____ class average _____

Class rank and grade average are based on grades 9 _____ 10 _____ 11 _____ 12(Fall) _____ 12(Winter) _____ 12(Spring) _____

Grading system _____ lowest passing grade _____ this school is accredited _____ not accredited

College Aptitude Testing Data (Raw scores only, no percentiles)

1. WPC T taken? Yes No VC _____ QC _____ V _____ M _____ Date taken _____

2. PSAT-NMSQT V _____ M _____ Selection Score _____ Date taken _____

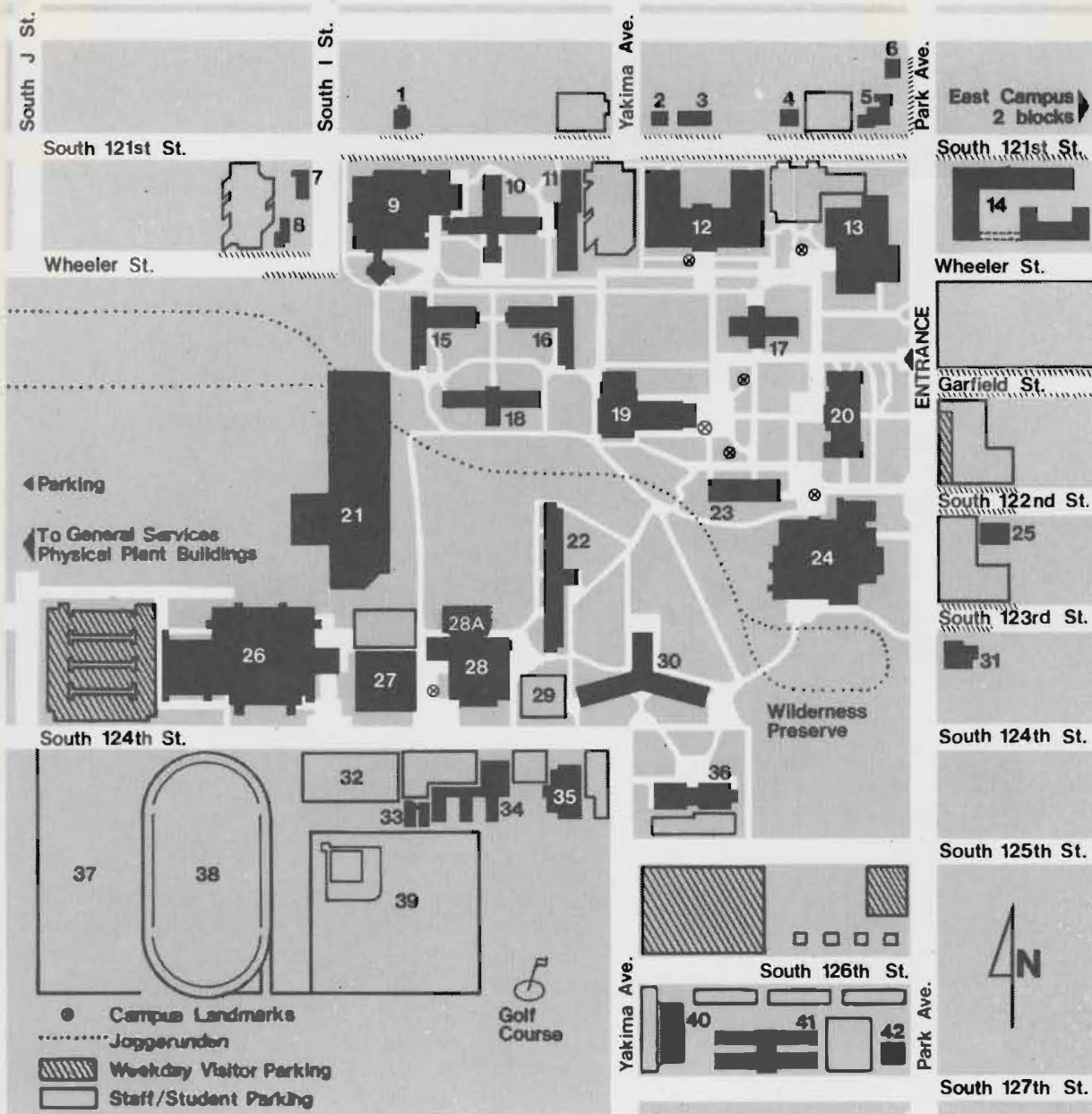
3. SAT V _____ M _____ Selection Score _____ Date taken _____

4. ACT Engl. _____ Math _____ Soc. St. _____ Nat. Sc. _____ Comp. _____ Date taken _____

Comments:

Name of high school	Signature of high school official	Date
Address of high school	Title	
	()	
Code number of high school	High school phone if out of state	

"Washington four-year colleges and universities subscribe to the principles and laws of the state of Washington and the federal government, including applicable executive orders pertaining to civil rights. These institutions are committed to the policy that all persons shall have equal access to programs and facilities without regard to age, color, creed, marital status, national or ethnic origin, physical handicap, race, religion, or sex."



Campus Location

- 39 Baseball Field
- 2 Blomquist House
- 24 Chris Knutzen Hall (in U.C.)
- 35 Columbia Center
- 40 Delta Hall
- 19 Eastvold Auditorium
- 41 Evergreen Court
- 3 Faculty House
- 42 Family Student Housing
- 22 Foss Hall
- 7 Haavik House
- 20 Harstad Hall
- 12 Hauge Administration Building
- 5 Health Center
- 18 Hinderlie Hall
- 16 Hong Hall
- 9 Ingram Hall
- 34 Ivy Hall
- 4 Knorr House
- 15 Kreidler Hall
- 33 Math Building
- 28 Memorial Gynasium
- 13 Mortvedt Library
- 1 Music Annex
- 28A Names Fitness Center
- 31 Nesvig Alumni Center
- 26 Olson Auditorium
- 10 Ordal Hall
- 6 Park Avenue House
- 30 Pflueger Hall
- 25 Post Office
- 8 Ramsey House
- 23 Ramstad Hall
- 21 Rieke Science Center
- 37 Soccer Field
- 11 Stuen Hall
- 27 Swimming Pool
- 29 Tennis Court
- 32 Tennis Court
- 36 Tingelstad Hall (Alpine Cascade, Evergreen, Ivy)
- 38 Track
- 14 Trinity Lutheran Church
- 24 University Center
- 17 Xavier Hall

Campus Offices

(Academic units listed in **boldface type**)

- Administration - Hauge
- Advising - Mortvedt
- Admissions - Hauge
- Alumni - Nesvig
- Anthropology - Xavier**
- Archives - Mortvedt
- Art - Ingram**
- Arts/School of the - Hauge**
- ASPLU - U. Center
- Athletics - Olson
- Audio Services - Hauge
- AURA - Mortvedt
- Biology - Ivy**
- Bookstore - U. Center
- Business Admin. - Hauge**
- Business Office - Hauge
- Cafeterias - U. Center
- Columbia Center
- Campus Ministry - U. Center
- Campus Safety/Info. - Harstad
- Career Planning - U. Center
- CAVE - U. Center
- Central Serv. - Gen. Serv.
- Chemistry - Ramstad**

- CHOICE - East Campus
- Church Relations - Nesvig
- Coffee Shops - U. Center
- Columbia Center
- Collegium - Nesvig
- Comm. Arts - Blomquist**
- Computer Center - Mortvedt
- Computer Science - Math Bldg.**
- Conference Center - U.C.
- Continuing Education - Hauge
- Convention Center - U. Center
- Co-op. Education - U. Center
- Counseling/Testing - Hauge
- Development - Hauge, Nesvig
- Dev. Data Center - Hauge
- Earth Sciences - Memorial**
- Economics - Xavier**
- Education - Hauge**
- Engineering - Ramstad**

English - Knorr

- Eve. Student Liaison - Hauge
- Family/Child Services Center - East Campus
- Student Housing - Hauge
- Finance & Operations - Hauge
- Financial Aid - Hauge
- Food Services - U. Center
- Foreign Students - Hauge
- Gen. Serv. Office - Hauge
- Global Studies - Hauge**
- Golf Pro Shop - Col. Center
- Graduate Studies - Hauge
- Graphics - E. Campus
- Handicapped Services - Registrar's Office
- Health Science - Ingram
- History - Xavier**
- Humanities - Hauge**
- Info. Desk - U.C.
- Integrated Studies - Hauge
- Interim Studies - Hauge
- International Educ. - Knorr
- KPLU-FM - Eastvold
- Languages - Knorr**

Legal Studies - Xavier

- LITE - Health Center
- Math/Computer Science - Math Bldg.**
- Media Relations - Nesvig
- Middle College - Hauge
- Minority Affairs - Hauge
- Mooring Mast - U. Center
- Mortvedt Gallery - Mortvedt
- Music - Eastvold**
- Natural Sciences - Ramstad**
- Nursing - Ingram**
- Parents' Club - Nesvig
- Personnel - Hauge
- Philosophy - Knorr**
- Photo Services - Mortvedt
- Physical Educ. - Olson**
- Physics/Engin. - Ramstad**
- Political Science - Xavier**
- Pre-Law Center - Xavier
- President - Hauge
- Print Shop - Gen. Services
- Project Advance - Hauge
- Provost - Hauge
- Psychology - Xavier**
- Public Admin. - Xavier

- Public Relations - Nesvig
- Purchasing - Hauge
- Q Club - Nesvig
- Registrar - Hauge
- Religion - Hauge**
- Residential Life - Hauge
- Scandinavian Studies - Knorr**
- Ship./Receiv. - Gen. Serv.
- Social Sciences - Xavier**
- Social Work - Xavier**
- Sociology - Xavier**
- Student Life - Hauge
- Studio Theatre - Memorial
- Study Abroad - Hauge
- Summer Sessions - Hauge
- TV Studios - Hauge
- Ticket Sales - U. Center
- Transfer Co-ord. - Hauge
- Univ. Comm. - Hauge
- USA - Faculty House
- Veterans Affairs - Hauge
- Wekell Gallery - Ingram
- WSCCE - Xavier



OFFICE OF ADMISSIONS

PACIFIC
LUTHERAN
UNIVERSITY

Tacoma, Washington 98447-0003
(206) 535-7151

Catalog of Pacific Lutheran University • Tacoma, WA

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