

The data 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.
Changes, if any, will be announced prior to their effective date.

Pacific Lutheran University Bulletin
Vol. 52, April 1972. Number 4
Published six times annually by Pacific Lutheran University
P.O. Box 2068, Tacoma, Washington 98447

Second Class Postage Paid at Tacoma, Washington
The PLU catalog is printed on $100 \%$ recycled paper

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## objectives of the university

Pacific Lutheran Unıversity, 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 confinements of ignorance and prejudice, to organize the powers of clear thought and expression, to preserve and extend knowledge, to help men 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 student and to acquaint him 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 man's intellectual, artistic, cultural, and natural surroundings. The University affirms its fundamental obligation to
confront liberally educated men with the chal lenges 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 the student is regarded as an integral part of his liberal education. Hence the University encourages participation in physical activities and respect for health and fitness.

Professing a concern for the entire nature of man, 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 men to illuminating perspectives and worthy purposes. The University community confesses the faith that the ultimate meaning and purpose 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.


Dr. Eugene Wiegman, President

## section $/$ generalities

A liberal arts education is concerned with liberation. Pacific Lutheran University seeks to liberate a student; liberate him not from his heritage, but from his inadequacies; liberate him not from himself, but for himself and for other men. Practically speaking, liberation translates into developing concrete personal characteristics: competence in research, clarity in thought, creativity in action, sensitivity to the needs of other men, and a clear and adequate perception of reality, including man's relationship with God. Liberation is a student awakening to the human possibilities extant within himself.

Man's intellectual heritage is a history of alternatives. Today's student struggles to make a statement in relation to those alternatives. To do so, he must know where he stands. Pacific Lutheran University, as an integrated community, seeks to give its students that foundation. Through encountering man's philosophies and languages, each student has the opportunity to acquire perspective, insight and discipline that will give his life direction and purpose.

The university experience affirms the individual's concept of self-worth by helping him relate an understanding of man's heritage to contemporary realities.

Thus, implementing the ideals expressed in our "Objectives of the University" statement is neither an exclusive nor a terminal process. Administrators, faculty, regents and students share the ongoing responsibility for shaping that which comprises the University experience, and for preserving essential diversity now and in coming decades.


## the child is father of the man

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

The institution opened as an academy and 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. In 1941, still a small and struggling institution, it assumed the necessary role of a college of liberal arts. It was then known as Pacific Lutheran College until 1960 when, because of organizatio nal restructuring, it became Pacific Lutheran University.

We recount this brief sketch because it represents a thoughtful and progressive evolution. A great university is simply not brought into existence overnight. The University began the century as an acaderny. Today our 3,000 enrolled students may select programs from the College of Arts and Sciences, from Schoo Is of Business Administration, Education, Fine Arts, Physical Education, and Nursing, or from the Division of Graduate Studies. As the child is father of the man, so the ideals and perseverance of those who precede us weave an historical fabric of which we can be justifiably proud.

The fact that a university has worthy historical roots does not, of course, insure academic excellence. A reputation for excellence is not a function of longevity, but rather, must be renewed each year through ongoing preparation and discipline. Perhaps the greatest legacy these pioneers left us is their example of faith and hope in what this University is, and what it is becoming.


## academic openness

If it is true, as H.G. Wells wrote, that "human history becomes more and more a race between education and catastrophe", it then follows that the content of education is of critical importance. For this reason, curriculum review and attendant commitment to academic excellence is fundamental to Pacific Lutheran's educational philosophy.

Academic matters are characterized by practical innovation and openness. Because his world is a stream of constantly accelerating events, today's student must be educated in the dynamics of change. The University encourages students to cope with reality, to concentrate their energies on exploring possibilities for survival, for themselves and for mank ind.

In 1969, following a University-wide review of instructional objectives and practices, the University adopted a new calendar. Commonly called the 4-1-4, the current calendar comprises two fourteen week semesters separated by a four-week interim. Typically, an undergraduate enrolls in three or four courses each semester and in only one course during at least two interims.

The interim calendar is aimed at achieving freedom for the individual. Students are able to concentrate on fewer offerings and achieve greater depth and competence in a smaller number of better integrated courses. An emphasis is given to promoting initiative on the part of each person. Courses are planned with less emphasis upon clock hours to allow flexibility in individual student programs. In courses with fewer formal contact hours, faculty members provide a greater amount of informal contact.

The interim month deserves particular attention because of its inherent openness and intensity. Interim offers students and faculty the opportunity to make a clean break with academic ritual. Students are free to develop and explore personal interests and faculty teach in areas and ways not available during the regular semester. The options are various: innovative seminars, foreign studies in Central America, Europe and Asia, interdepartmental offerings, area off-campus studies, and exchange programs with other interim institutions.


With freedom, however, comes responsibility. The faculty has committed itself to imaginative concepts and has accepted the challenge to keep courses responsive and open-ended. Consequently, interim offerings are experimental and students are expected to invest more in the courses than is simply required.

The footnote should be added that Pacific Lutheran's contemporary academic perspective is constantly evolving. In the spring of 1971, PLU's ninth president, Eugene Wiegman, appointed a Commission on Academic Excellence. This special faculty commission, staffed with an executive coordinator, has a mandate to study every facet of University life which relates to the learning situation. The commission is empowered to make recommendations on how best to preserve and strengthen PLU's commitment to scholarship and high academic standards.

# "what a piece of work is man! how noble in reason! how infinite in faculty!'" strasespare 


#### Abstract

A liberal arts curriculum, by definition, is dependent upon the integration of a variety of viable, legitimate perspectives. If a curriculum is open to creativity, solid in substance, diverse yet disciplined, then the faculty must be equal to the challenge


The Pacific Lutheran faculty is one that's balanced. Its composition includes energetic graduates and seasoned veterans, men and women of various academic interests and equally diverse philosophical persuasions, representing ethnic and cultural backgrounds from Europe to the Orient. In concert, the faculty represents an infinite potential for learning relationships, greater than that which a student could absorb in one four-year span.
"Th is institution," President Wiegman once remarked, "is not conservat ive and it's not liberal. It's an institution made up of people who have varying opinions and life styles. It's a diverse campus and that is something we cherish, something we wish to protect and encourage."

The academic pedigrees of the faculty are listed in this volume for your information. For the uninitiated, the data reveals only that our 169 full-time and 50 part-time teachers possess
credentials from universities around the world. No mention is made of their publications, professional articles, scholarly research, concert performances or art exhibitions. The listing does not explain why a graduate of Princeton (Columbia, Michigan, Chicago, Stanford, Cambridge, Harvard and so on) would dedicate himself to a small, Northwestern liberal arts university. But they do.


An institution's total environment provides considerable rationale for the qual ity of teachers it attracts. You may be interested in a few of those environmental factors: opportunities for an interdisciplinary approach to higher education; the respect that exists between schools and departments; the creative potential of the course system and interim calendar; a library with better than adequate holdings; the encouragement and recognition accorded their professional, scholarly studies; the excellent facilities; the latitude given those who initiate innovative programs; and the evident Christian commitment to educating students for service.

Finally, each teacher derives satisfaction from knowing students on a first-name basis. Pacific Lutheran University is no megaversity. A professor at PLU shares in the resolution of student problems on a one to one basis.

## academic program

When Pacific Lutheran adopted the interim calendar in 1969, it simultaneously made the transition from the credit to the course system. In practical terms, this change accomplished a number of objectives which improved the students' opportunities at PLU. and strengthened the University's commitment to quality liberal arts education.

First, the course system simplified the method of computing degree requirements and student schedules. Second, it led to the establishment of a smaller number of better integrated courses in which each student is expected to invest relatively more time than under the credit system. In point of fact, the courses are more
intense. Finally, the course system reduced wasteful fragmentation of student and faculty time. With fewer courses and fewer preparations (averaging three to four courses each semester), each student was freed to pursue independent research and self-education.

Each undergraduate degree candidate is expected to complete 32 courses with an overall grade point of 2.00 . Each candidate must similarly announce and complete a major, detailed requirements for which are separately specified by each school and department.

All Baccalaureate degree candidates are required to demonstrate proficiency in the English language, as well as to meet
course requirements in these areas: fine arts, history or literature, philosophy, religion (2), natural sciences or mathematics, social sciences, physical education, and, in the College of Arts and Sciences, a foreign language or equivalent requirement.

Requirements for degrees are specifically stated in this catalog. Prospective students should become familiar with these requirements and prepare to meet them. In the final analysis, of course, each student's success is the product of his own initiative.

The University's academic structure is comprised of the College of Arts and Sciences, five schools and the Division of Graduate Studies, as follows:

## COLLEGE OF ARTS AND SCIENCES

Division of Humanities
English
Foreign Languages
Philo sophy
Religion
Division of Natural Sciences
Biology
Chemistry
Earth Sciences
Mathematics
Physics

## Division of Social Sciences

## Economics

History
Polit ical Science
Psychology
Sociology, Anthropology
and Social Welfare

## SCHOOL OF BUSINESS

ADMINISTRATION

## SCHOOL OF EDUCATION

## SCHOOL OF FINE ARTS

## Art

Music
Communication Arts
SCHOOL OF NURSING
SCHOOL OF PHYSICAL EDUCATION

DIVISION OF GRADUATE STUDIES


Schwidder, Chairman; Achepohl, Elwell, Keyes, Kittleson, Roskos, and Tomsic, assisted by Metcalf.

## art

Attitudes and skills which contribute to the realization and expansion of a creative process. Curious students discover mediums for expression and development of their aesthetic values; professionally oriented students find specialized study in studio and art history.
HISTORY AND THEORY

110 The Visual Arts
280 Twentieth Century Art
325 Habitat and Environment
382 Ancient Art
383 Medieval Art
384 Renaissance Art
385 Baroque Art
440 Seminar in Art Education
487 Nineteenth Century Art
490 Seminar
497 Research in Art History
597 Research

STUDIO: Basic med ia courses may be repeated for cred it for two or three semesters.
160 Drawing
230 Ceramics I
250 Sculpture I Figure
260 Life Drawing
326 Film Making:Photography/ Cinematography
330 Ceramics II
338 Glassblowing
341 Elementary Art Education
350 Sculpture II: Metals/Wood/ Mixed Media
365 Painting
370 Printmaking: Seriograph/ Lithography/Etching
492 Studio Projects
494 Graphics Workshop
499 B.F.A. Candidacy Exhibition

WORKSHOPS: Special courses offered on an occasional basis.
225 Light Design
236 Textile Design
270 Sosaku Hanga Japanese Wood Cut
332 Raku:Japanese Pottery
333 Kiln Building
358 Plastik:Sculpture
401 Bronze Casting
INTERIM COURSES OFFERED IN 1972:
303 The Pr inted I mage
306 Film Making: The Short Film
309 France: Style and the Senses
312 Furniture as Form


Jensen, Chairman; Alexander, Bohannon Creso, Gee, Heyer, Knudsen, Leraas, Main, Ostenson, Sorenson.

## biology

Through an examination of the objectives and principles of biology, the faculty broadens each student's understanding and appreciation of life. Biology and the allied science departments offer the extensive preparation required for successful entry into the competitive biological, humanitarian and medical arts professions.

111 Biology and Modern Man
153 Cell Biology
154 Organismal Biology
161 Human Anatomy
162 Human Physiology
201 Microbiology for Nurses
253 Biology of the Steady State
275 Microbiology
321 Ornithology
324 Natural History of Verteb rates
331 Genetics
340 Plant Diversity and Distribution
346 Cellular Physiology
347 Cellular Physiology Laboratory
361 Comparative Anatomy
364 Vertebrate Embryology
372 General Entomology
375 Biology of Parasitism

380 Biology Teaching Resources
411 Histology
424 Ecology
425 Biological Oceanography
426 Ecology Laboratory
435 Plant Form and Function
441 Vertebrate Physiology
444 Plant Physiology
475 Evolution
490 Seminar
491,492 Independent Study
597, 598 Graduate Research

INTERIM COURSES OFFERED IN 1972:
301 Human Ecology
306 Winter Ecology of Washington
308 Molecules and Memory
309 Embryo, Fetus and Their Environment
319 Coral Island Biology and Geology


## business administration

King, Dean; Bancroft, Carvey, Dirksen, Hutcheon, Stintzi, Lauer, McMaster, Martilla, Peterson, Watk inson, Zulauf, assisted by Jorgenson, Nicholson, Kovanen. Consulting professors: Leonard M. Guss, Joseph E. Nolan.

Man's altered social, political and economic environment dictates that modern curricula reflects an appreciation of the obligations and service opportunities in commerce and industry. The executive or specialist must contend with sensitive decision-making as well as mastering analytical techniques and information systems. In concert with general university requirements, the business curriculum prepares graduates for responsible stations in business, education and government.

Business Communications

350 Industrial Management
364 Managerial Finance
365 Real Estate
366 Risk and Insurance Management
370 Marketing Systems
381 Intermediate Accounting
383 Income Taxation
385 Cost Accounting
387 Data Processing Systems
450 Manufacturing Management
453 Personnel and Industrial Relations
455 Business Policy
456 Honors Seminar
461 Investments
464 Financial Management
470 Marketing Management
471 Marketing Research and Consumer Behavior
472 Advertising and Sales Management

## 473 Industrial Marketing and

 Purchasing482 Advanced Accounting
484 Auditing
488 Systems Analysis and Design
490 Seminar
491 Directed Study
495 Business Law
550 Organizational Environment
551 Seminar in Industrial Management
555 Business Strategy and Policy
564 Seminar in Financial Management
570 Seminar in Marketing Management
581 Seminar in Financial Accounting Theory
582 Accounting Information and Control
590 Special Seminar
591 Independent Study
596 Research Colloquium

INTERIM COURSES OFFERED IN 1972:
243 Family Financial Planning
310 Health Care Delivery Systems
315 Law and Society
340 Principles of Business Education
443 Information Processing
488 System Analysis and Design
591 Independent Study
596 Research Colloquium

## BUSINESS ADVISORY BOARD:

Edwin S. Coombs, Jr., President Rainier Brewing Company
Kenneth W. Hultgren, Treasurer Weyerhaeuser Company
Stanley M. Little, Jr., Director of Industrial and Public Relations Boeing Company
Howard O. Scott, President United Mutual Savings Bank
George Wade, President Brady International Lumber Company


Huestis, Chairman; Anderson, Giddings, Nesset, Olsen, Swank, Tobiason.

## chemistry

Our bionomic survival depends increasingly upon our knowledge and control of the composition, properties and reactions of chemical substances. Consequently, the department seeks a broadened sophistication in chem istry for all students. For the major student, the courses, curriculum, faculty and facilities are approved by the American Chemical Society and together comprise a program that prepares and certifies graduates for full participation in the chemical profession.

103 Chemistry of Life
104 Environmental Chemistry
115 General Chemistry
132 Presentation of Experimental Work
142 Systematic Inorganic Chemistry
152 Systematic Inorganic Chemistry Honors
321 Quantitative Analysis
331, 332 Organic Chemistry
333, 334 Organic Chemistry Laboratory
341, 342 Physical Chemistry
343, 344 Physical Chemistry Laboratory
401 Organic Qualitat ive Analysis
404 Biochemistry
422 Advanced Inorganic Chemistry
432 Instrumental Analysis
491 Independent Study
497 Research
597, 598 Graduate Research

INTERIM COURSES OFFERED IN 1972:
301 Body and Soul
303 Alchemy and Astrology
308 Molecules and Memory
310 Health Care Delivery Systems
311 Environmental Concerns - An Information/Action Approach

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## communication arts

Karl, Chairman; Capp, Doughty, Eman, Nordholm, Parker, assisted by Christian, Eyres, Knightlinger, Nordlund.

A program concerned with improving interpersonal, group and public communication through a mastery of basic rhetorical processes and a comprehension of the nature of the mass media as well as offering cultural and artistic opportunities in the field of theatre. The department offers a practical understanding of this human process to all students and prepares its majors for participation and teaching in the areas of theatre, public address and broadcasting.

| 123 | Fundamentals of Oral Communication | 351 | Stage Technology |
| :--- | :--- | :--- | :--- |
| $125,225,325,425$ Communication Arts | 352 | Scenic Design |  |
|  | Practicum | 354 | Play Direction |
| 128 | Argumentation and Debate | 356 | Stage Lighting |
| 161 | Introduction to the Theatre | 358 | Advanced Acting |
| 226 | Parliamentary Law | 363 | History of the Theatre |
| 232 | Contemporary Oral Discourse | 374 | Television Production |
| 235 | Studies in Organizational | 377 | Broadcast Management |
|  | Communication | 380 | Speech Science and Pathology |
| 236 | Persuasion | 385 | Journalism - Editorial Techniques |
| 241 | Oral Interpretation of Literature | 402 | Speech in the Elementary Classroom |
| 250 | Fundamentals of Acting | 404 | Speech in the Secondary School |
| 271 | Broadcast Media - Man and Society | 450 | Children's Theatre Workshop |
| 272 | The Broadcaster and Sound | 459 | Summer Drama Workshop |
| 275 | Radio Production | 474 | Television and the Classroom |
| 283 | Journalism |  | Teacher |
| 284 | Journalism - News Writing | 478 | Summer Television Workshop |
| 326 | Group Discussion | $491,492,493$ Special Studies in |  |
| 327 | Extemporaneous Speaking |  |  |
| 333 | Foundations ot Communication | $96,597,598$ Communication Arts |  |
|  | Theory |  |  |
| 335 |  |  |  |

INTERIM COURSES OFFERED IN 1972:
303 Multi-Media Sports Promotion
311 Children's Theatre in Miniature


Ostenson, Chairman; Lowes, assisted by Fisk, Huestis.

## earth sciences

The components of man's physical universe, from planetary science to the earth's crust; the inter-relationsh ips between these components; and the relationship between man and his environment. In addition to an examination of geology, oceanography, astronomy, meteorology and geography, inter-departmental cooperation facilitates specialized studies in geophysics and geochemistry.

| 101 | World Geography |
| :--- | :--- |
| 122 | Introduction to Physical Science |
| 131 | Physical Geology |
| 132 | Historical Geology |
| 136 | Descriptive Astronomy |
| 202 | General Oceanography |
| 222 | Conservation of Natural Resources |
| 323 | Mineralogy |
| 324 | Petrology |
| 325 | Structural Geology |
| 351 | Natural History of the |
|  | Pacific Northwest |
| 360 | Geology of Western Washington |
| 365 | Glacial Geology |
| 425 | Biological Oceanography |
| 490 | Seminar |
| 491,492 Independent Study |  |

INTERIM COURSES OFFERED IN 1972:

306 Winter Ecology of Washington
310 Demonstration of Scientific Concepts
319 Coral Island Biology and Geology


## economics

Miller, Chairman; Brue, Genda, Jensen,
Kruse, Vinje.

Examination of economic issues and philosophies to aid in understanding the public and private sectors of the American economy and their relationship to so ciety's current economic, social and psychological needs.

150 Principles of Economics
290 Contemporary Economic Problems
321 Human Resource Economics
331 International Economics
351 Intermediate Macro Economic Analysis
352 Intermediate Micro Economic Analysis
361 Money and Banking
362 Public Finance
4:32 Development Economics
434 Government and the Economy
481 Statistical Methods
486 Readings in the Evolution of Economic Thought
490 Seminar
491, 492, 493 Independent Study
504 Managerial Econornics
543 Quantitative Methods
591, 592, 593 Independent Study
599 Thesis

INTERIM COURSES OFFERED IN 1972:
306 Current Economic Issues
308 Explorations in Economic Philosophy
311 Environmental Concerns - An
Information/Action Approach
314 Economic Development of Low-Income Regions Within the U.S.


# education 

Johnston, Dean; Baughman, DeBower,
Fletcher, Jorgenson, Mathers, Napjus, Olson, Orvik, Pederson, Petty, Stein, Williamson, assisted by Adachi, Beal, Bertness, Breckenridge, Ehlers, Gray, Hanson, Holden, Keblbek, Leasure, Minetti, Moe, Nelson, Nokleberg, Smith, Warren.

A school which contributes to the development of professional teaching personnel, grounded in liberal and scientific learning and dedicated to a person-centered frame of reference. The faculty encourages open attitudes which are flexible and reflect a realistic understanding of the social, technological and psychological aspects of education.

201 Learner and Society: Growth and Development
321 Human Development
322 General Methods - Primary
323 General Methods - Upper Elementary
325 Reading in the Elementary School
326 Mathematics in the Elementary School
401 Workshops
408 Language Arts in the Elementary School
410 Science in the Elementary School
412 Social Studies in the Elementary School
420 Problems of Reading in the Secondary School
423 General Methods - Secondary
430 Student Teaching - Primary
432 Student Teaching - Upper Elementary
434 Student Teaching - Secondary
435 Professional Seminar
440-448 Specific Methods in Teaching Secondary School Subjects
451 Administration of the School Library
452 Basic Reference Materials
453 Processing School Library Materials
454 Selection of Learning Resource Materials
455 Instructional Materials
456 Storytelling
457 Preparation and Utilization of Instructional Materials

467 Evaluation
473 Parent-Teacher Conference
481 Statistical Methods
482 Kindergarten
483 Primary Reading
486 The Gifted Child
488 Reading Center Workshop
489 Directed Teaching in Reading Centers
496 Laboratory Workshop
497 Special Project
501 Workshops
545 Methods and Techniques
550 School Finance
552 Public School Administration
554 High School Organization and Administration
555 Administration and Supervision Workshop
558 Administrative Internship
571 History and Philosophy of Higher Education
573 Student Personnel Work in Higher Education
579 Diagnosis and Remediation in Reading
580 Curriculum Development
583 Readings in Educational Issues and Problems
585 Comparative Education
587 History of Education
589 Philosophy of Education
590 Graduate Seminar
596 Research Studies in Education
597 Research Studies in Education

## 599 Thesis

## EDUCATIONAL PSYCHOLOGY:

461 Group Process and the Individual
463 Guidance in the Elementary School
465 Guidance in the Secondary School
466 Introduction to Student Personnel Services
468 Educational Psychology
469 Vocational and Educational Guidance
560 Continuing Practicum
561 Counseling Theory
563 Practicum in Group Process and Leadership
565 Seminar: Non-Test Appraisal
570 Practicum and Field Work in Counseling and Guidance
572 Practicum in Student Personnel Work
575 Mental Health
578 Behavior and Learning Problems of Students

INTERIM COURSES OFFERED IN 1972:
301 Body and Soul
306 Human Relations
308 Story Telling - For Fun and Profit
310 Exploring Vocational Possibilities for Minority Students
313 Involvement in a Therapeutic Community
497 Special Project
583 Readings in Educational Issues and Problems


Johnson, Chairman; Benton, Blomquist, Jones, Klopsch, Larson, Reigstad, Van Tassel, assisted by Williams.

## english

English, as language and as discipline. increases the student's knowledge of his literary heritage; sharpens his awareness of competing language patterns; encourages competence in writing, discernment in reading; and seeks to fully develop inherent powers of thought and expression unique to each individual.

101 College English
217 Short Story
230 Introduction to Contemporary Literature
231 Masterpieces of European Literature
241 Introduction to American Literature
251 Introduction to English Literature: Beginnings to 1750
252 Introduction to English Literature: After 1750
318 Advanced Composition
323 Children's Literature
349 Modern Poetry
351 Modern Drama
358 English Literature: The Novel
382 English Literature: Chaucer
383 English Literature: Shakespeare
388 English Literature: Milton and His Age
389 English Literature: Satire and Sensibility
390 English Literature: The Romantics

391 English Literature: The Victorians
392 English Literature: Twentieth Century
400 Linguistics
403 Modern English Grammar
441 The American Renaissance, 1830-1870
442 American Literature: Realism and Naturalism, 1870-1920
443 American Literature Since 1920
450 Seminar in American Literature
491,492 Independent Reading and Research
597 Graduate Research

INTERIM COURSES OFFERED IN 1972:
301 The American Jewish Novel
303 Fiction - Italian Style
306 Reading Poems
309 Mark Twain's America
310 The Cornic Muse
312 The Fiction of D.H. Lawrence


## foreign languages

Foreign language learning provides an urgently needed element in our domestic and global community: the ability to communicate effectively with and within other cultures. Through the medium of language, the student increases his knowledge of the contributions other peoples have made to civilization, history, literature and the arts and sciences.

Swenson, Chairman; Blubaugh, S. Carleton,<br>Faye, Monroe, Robinson, Spangler, Toven,<br>Webster, assisted by E. Carleton, Payne,<br>Wilhelm, Petersen.

Because the past struggles of men to establish justice and attain wisdom provide insight into the nature and problems of contemporary man, the Departments of Foreign Languages, History, Philosophy and Religion cooperate in offer ing a Classics major. See page 55

## LINGUISTICS:

400 Structural Linguistics
FRENCH:
101, 102 Elementary French
201, 202 Intermediate French
321 Civilization and Culture
351, 352 Composition and Conversation
421, 422 Masterpieces of French
Literature
442 History of Romance Languages
445 Methodology of Teaching Foreign Languages
491,492 Independent Study
597, 598 Graduate Research
GERMAN:
101, 102 Elementary German
201, 202 Intermediate German
321 Civilization and Culture
351, 352 Composition and Conversation
421, 422 Masterpieces of German Literature
431, 432 Twentieth Century German Literature
442 History of the German Language
445 Methodology of Teaching Foreign Languages

491,492 Independent Study
597,598 Graduate Research

GREEK:
101, 102 Elementary Greek
201, 202 Intermediate Greek
421, 422 Masterpieces of Greek Literature
491,492 Independent Study
*JAPANESE:
101, 102 Elementary Japanese
201, 202 Intermediate Japanese
LATIN:
101, 102 Elementary Latin
201, 202 Intermediate Latin
491, 492 Independent Study
NORWEGIAN:
101, 102 Elementary Norwegian
201, 202 Intermediate Norwegian
321 Civilization and Culture
491,492 Independent Study
*RUSSIAN:
101, 102 Elementary Russian

## 201, 202 Intermediate Russian

SPANISH:
101, 102 Elementary Spanish
201, 202 Intermediate Spanish
321 Civilization and Culture
351, 352 Composition and Conversation
421,422 Masterpieces of Spanish Literature
431.432 Twentieth Century Spanish

Literature
442 History of Romance Languages
445 Methodology of Teaching Foreign Languages
491,492 Independent Study
INTERIM COURSES OFFERED IN 1972:
300 Spanish Culture and Conversation
03 Mexican Culture
310 German Conversation
311 Spanish Conversation
315 Norway, A Welfare State?
316 The Contemporary French Novel in Translation
319 Germany Today
320 Med ieval Germanic Legends and Epics
*Offered cooperatively with the University
of Puget Sound.


Yang, assisted by Brink, Liebelt, Tang.

## engineering

An education of sufficiently fundamental nature to permit rapid adaptation to new technical problems and opportu nities; and of sufficiently liberal scope to provide awareness of the broad social responsibilities implicit in engineering.

144 Introduction to Computer Science
151 Engineering Graphics
231 Statics
232 Mechanics of Solids
344 Systems Analysis and Simulation
346 Numerical Analysis
351 Thermodynamics
441 Network Analysis
442 Transport Phenomena


Schnackenberg, Chairman; Halseth, Johnson, Martinson, Nordquist, Scharnweber, assisted by Carleton.

## history

Humane perspective the present understandable. the future possible.

107, 108 History of Civilization
251 Colonial American History
252 Nineteenth Century Amer ican History
253 Twentieth Century American History
255 Pacific Northwest
321, 322 History of the Ancient World
323 Medieval History
324 Renaissance
325 The Reformation
326 European History from 1658 to 1798
327 The French Revolution and Napoleon
328 Nineteenth Century Europe
329 Twentieth Century Europe
331, 332 England
333 Russia
336 Colonial Latin America
337 Republican Latin America
340 Far Eastern History
356 History of American Foreign Policy

421 History of Ideas: European Civilization
451 American Constitutional History
461 History of the American Frontier
471 History of American Thought and Culture
492 Independent Study
494 Seminar: American History
495 Seminar: European History
496 Seminar: History and Historians
596 Graduate Research
599 Thesis

INTERIM COURSES OFFERED IN 1972:
303 The Hawaiian National Parks
306 The Radical Historians
311 The Pre-Modern European Occult

## mathematics

J. Herzog, Chairman; Batker, Brink, Fisk , Gintz, Johnson, Meyer, Liebelt, Peterson.

The department's faculty is committed to investigating man's attempt to establish order in his thinking and in his technological society through the medium of mathematics. The curriculum provides expertise for the career-oriented or graduate-bound student and prepares those who will need mathematics as a tool in business or the natural and social sciences.

091 Intermediate Algebra
127 Finite Mathemat ics
133 College Algebra and Trigo nometry
144 Introduction to Computer Science
151 Analytic Geometry and Calculus
152 Analytic Geometry and Calculus
199 Directed Reading
231 Linear Algebra and Calculus
244 Data Structures and Assembly Language Programming
321 Geometry
323 Modern Elementary Mathematics
324 Geometry for the Elementary School Teacher

332 Multidimensional Calculus
341 Mathematical Statistics
344 Systems Analysis
346 Numerical Analysis
351 Applied Mathematics
433, 434 Modern Algebra
446 Mathematics in the Secondary School
455, 456 Mathematical Analysis
460 Elementary Topology
490 Seminar
491,492 Independent Study
597,598 Graduate Research

INTERIM COURSES OFFERED IN 1972
307 Introduction to Modern Mathematics
308 Interdisciplinary Mathematics
310 Mathematical Puzz les and Paradoxes
312 Statistical Principles in
Experimental Design


## music

Skones, Chairman; Dahl, Gilbertson, Harmic, King, C. Knap , Kracht, Meyer, Robbins, Sare, assisted by Bantsari, Bergeson, Crockett, Dryden, Hopp, S. Knapp, Lepley, Locke, Newnham, Sundquist, Thompson, Tremaine.

Programs for those seeking intensive training in music theory and composition, sacred music and vocal and instrumental performance; for those planning careers in music education; and for those who wish to increase their general musical knowledge and appreciation.
50 Student Recital

120 Music Survey
123 Theory
124 Theory
141, 142 Strings
211, 212 History of Music
223, 224 Theory
243, 244 Woodwinds Instrumental Laboratory
245, 246 Brass Instrumental Laboratory
247 Percussion Laboratory
323 Contemporary Techniques, Analysis, and Literature
324 Contrapuntal Writing, Form, Analysis and Literature
325,326 Orchestration
327 Composition
LITERATURE AND PERFORMANCE
330 Choir of the West
331 University Chorale
332 Madrigal Singers and Vocal Ensemble
333 University Band
334 University Orchestra
335 Chamber Ensemble
336 Two Piano Ensemble
337 Accompanying
338 Contemporary Directions Ensemble

339 Basic Conducting
340 Music in the Elementary School
341 Music Skills and Methods for Elementary Teachers

PRIVATE INSTRUCTION
350 Piano
351 Organ
352 Voice
353 Violin, Viola
354 Cello
355 Woodwinds
356 Brass
357 Percussion
363 History of Piano Literature and Performance
364 History of Organ Building
365 Vocal Literature
367 Hymnology and Sacred Music Literature
368 Worship and Liturgy
401 Opera Workshop
423 Advanced Form and Analysis
441 Keyboard Pedagogy
442 Vocal Pedagogy
443 Organ Reper to ire and Improvisation
445 Advanced Conducting, Techniques
and Materials
447 Music in the Secondary School
491, 492 Independent Study
590 Graduate Seminar
INTERIM COURSES OFFERED IN 1972:
301 Music Literature and Concerts
302 Living Church Music
303 Beginners in Piano
305 I mprovisation for Piano
318 Opera Workshop
320 European Organ Tour
330 Choir of the West
331 University Chorale
334 University Orchestra


## nursing

A baccalaureate program wh ich comb ines 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 the individual and the community.

251 Mental Health
252 Nursing Techniques
253, 263 Disease Entities
254 Patient Health Teaching
255 Surgical Intervention
256 Rehabilitation Nursing
361, 362, 363 Maternal-Child Nursing
371,372 Psychiatric Nursing
410 Trends in Nursing
446 Community Nursing
450 Selected Clinical Problems I
451 Selected Clinical Problems II
452 Nursing Leadership
491,492 Independent Study

INTERIM COURSES OFFERED IN 1972:
305 Community Involvement in
Preparation for Parenthood
310 Health Care Delivery Systems
315 Body Language
316 Man and His Food


## philosophy

In this oldest and parent discipline of the arts and sciences, the student pursues a critical and systematic analysis of basic issues in all fields and a unified view of the totality of experience. The course of inquiry acquaints each student with rival world views and value systems, encourages him in analytic and systematic thought and enables him "to see life critically, appreciatively and whole".

201 Introduction to Philosophy
221 Ethics
233 Logic
324 Man in Society
*328 Political and Legal Philosophy
331 Ancient and Medieval Philosophy
333 Modern Philosophy
335 Contemporary Philosophy
361 Oriental Thought
365 Kierkegaard and Existentialism
*371 Aesthetics
381 Theory of Value
393 Philosophy of Religion
395 Philosophy of Science
427 Books, Ideas and Men: Seminar in Philosophy
*435 Advanced Seminar in Philosophy
491, 492 Independent Reading and Research
*Indicates that this course has been approved for inclusion in the catalog on a provisional basis.

INTERIM COURSES OFFERED IN 1972:
311 Civil Disobedience and the Authority of Law
315 Norway, A Welfare State?


## physical education

Olson, Director; Broeker, Carlson, Chase, Danielson, Hoseth, Kittilsby, Lundgaard, Phillips, Officer, Westering, assisted by Barley, Benson, Holm, Malmin, Seaman, Thieman.

A school which seeks to ingrain in each student a fundamental respect for the role of physical activity in living. It provides opportunities for the acquisition of a variety of leisure-time skills which enhance and are appropriate to the individual. Professionally, it prepares prospective leaders for the professions of physical education, health, recreation, athletics, and corrective therapy.

## PHYSICAL EDUCATION

ACTIVITIES PROGRAM:
100 Orientation to Physical Education 200-299 Individual and Dual Activities
230.239 Aquatics

240-249 Rhythms
250-259 Athletic Games
275 Water Safety Instruction PROFESSIONAL PHYSICAL
EDUCATION PROGRAM
277 Scientific Foundations of Physical Education
281 Injury Prevention and Therapeutic Care
284 Professional Activities, Team Sports for Men
285 Professional Activities, Individual and Dual Sports
286 Professional Activities, Gymnastics and Dance
288 Professional Activities, Team Sports for Women

## 292 First Aid

295 School Health
322 Physical Education in the Elementary School
324 Personal Health
326 Community Health
328 Curriculum Development and Administration
330 Recreation Programming
331 The Woman as a Competitor
332 Officiating for Women
362 Rhythms and Dance
360, 361 Practicum in Teaching and Coaching
370-375 Coaching Theory
391, 392 Corrective Therapy
480 History and Philosophy of Physical Education
481 Physiological Basis for Motor Performance
482 Biomechanics of Human Motion
483 Recreation Administration
484 Measurement and Evaluation in

Physical Education
491 Independent Study
597 Graduate Research
INTERIM COURSES OFFERED IN 1972:
204 Bowling
205 Beginning Badminton
208 Skiing
210 Slimnastics
222 Handball, Squash, and Paddleball
237 Skin and Scuba Diving
255 Co-Ed Volleyball
301 Planning Areas and Facilities for Physical Education, Recreation and Athletics
303 Multi-Media Sports Promotion
326 Community Health
491 Independent Study
497 Intern Programs
A. Recreation Internship
B. Correct ive Therapy Internship
C. Orientation to Therapy Programs


## physics

As a part of the philosophical revolution that is reshap ing the relationship between man and the universe, physics explores fundamental scientific concepts to give students a greater appreciation of the space and matter in which we are immersed. Physics options include a freshman honors course, major programs in physics and engineering physics, and a special sequence in preparation for teaching.

101 Basic Concepts of Physics
102 Discovery Physics
111, 112 Honors Physics
151 Engineering Graphics
211 Descriptive Modern Physics
231 Statics
232 Mechanics of Solids
253, 254 General Physics
272 Electrical Circuits and Instrumentation
321,322 Advanced Laboratory
331 Electromagnetic Theory
336 Mechanics
351 Thermodynamics
355 Teaching of Physics
382 Radioisotope Technology
401 Introduction to Quantum Mechanics
406 Advanced Modern Physics
421,422 Advanced Laboratory
441 Network Analysis
442 Transport Phenomena
456 Mathematical Physics
491.492 Independent Study

497,498 Research
597,598 Graduate Research

INTERIM COURSES OFFERED IN 1972.
301 Mathematics for Scientists


20

$8+2 x+2=2$


## political science

A social science which acquaints the student with his inherent political freedoms and responsibilities by systematically investigating the democratic process and alternative systems. The department provides pre-professional training for graduate study and positions in law, government and related fields.

101 Introduction to Political Science
251 Arnerican National Government
325 History of Political Thought
326 Recent Political Thought
327 American Political Thought
331 International Relations
336 International Organization
354 American State and Local Government
356 Problems in Local Government
361 American Political Parties
364 The Legislative Process
421 Trens in Contemporary Political Theory
434 Government and the Economy
4.51 American Constitutional History

454 American Constitutional Law
457 Principles of Public Administration
458 Internship in Public Administration
464 Internship in the Legislative Process

481 Statistical Methods
483 Political Systems of the British Commonwealth
484 Soviet Political System
491, 492 Independent Reading and Research
597,598 Graduate Research

INTERIM COURSES OFFERED IN 1972:
313 Social Justice and the Process of Law
318 The View from London: Comparative Politics


Severtson, Chairman; Adachi, Bexton, Nolph, Larsgaard, Webster, assisted by Gilbert.

## psychology

Scientific study of the behavior of living organisms with an emphasis on understanding human behavior. The major provides a background preparation for a professional career or serves those students planning to pursue related vocations in which psychological insight is a valuable resource.

101 Introduction to Psychology
110 Study Skills
221 The Psychology of Adjustment
243 Scientific Methods
330 Social Psychology
335 Childhood and Adolescence
340 The Biology of Behavior
403 The Psychology of Infancy and Childhood
405 Adolescent Psychology
410 Emotion and Motivation
420 Psychology of Personality
421 Behavior Disorders
450 Psychological Testing
460 The Experimental Psychology of Learning
481 Statistical Methods
490 History and Systems in Psychology
491-493 Independent Study

515 Psychological Assessment
540 Counseling Theory
570 Practicum in Counseling and Testing
577 Supervised Field Work
590 Seminar: Psychology of Learning
596 Independent Research
597 Independent Research
599 Thesis and Thesis Seminar

INTERIM COURSES OFFERED IN 1972:
309 The Exceptional Child
311 Utopias
313 Involvement in a Therapeutic Community


Govig, Chairman; Christopherson, Eklund, Knutson, Petersen, Pilgrim, assisted by Mathre.

## religion

The religious heritage of mankind, particularly the Judaeo-Christian tradition, critically examined for the purposes of preserving and apolying its accumulating wisdom. The department examines religious dimensions encountered in other disciplines and serves students who elect religion as their academic or vocational specialty.

103 Judaeo-Christian Life and Thought
*105 Religious Experience
203 Biblical Literature
325 Christian Education in a Secular Society
327 Ancient Church History
328 Modern Church History
331 World Religions
341 American Churches
421 Old Testament Studies
422 New Testament Studies
423 The Life of Jesus
430 Christian Thought and Modern Consciousness
432 Christian Classics
436 Christianity and the Arts
490 Senior Seminar: Human Sexuality
490 Senior Seminar: Psychology and Religion
491,492 Independent Study
*Indicates that this course has been approved for inclusion in the catalog on a provisional basis.

INTERIM COURSES OFFERED IN 1972:
307 The Holocaust in Jewish Literature
309 Man: Religious and Human
311 Jesus and the Revolutionaries





## sociology, anthropology \& social welfare

Oberholtzer, Chairman; Gilbertson,
Hanson, Jobst, Nelson, Schiller, Walter
assisted by Adams, Bright, Green, Johns,
Winklebleck

The development, organization and behavior of human groups; the processes and uniformities of social behavior; the nature and relationship of groups and institutions; and a specific sequence in criminal justice, explained to stimulate critical and constructive attitudes toward social change and to train persons who will contribute to the resolution of social conflict. Courses in anthropology which explore the evolution of man, the prehistoric development of culture and patterns of cultural behavior in contemporary, native and folk societ ies. A sequence approved by the Council of Social Work Education which prepares students for employment in social work and related fields.

SOCIOLOGY:
111 Sociology
211 Group Behavior
325 Minorities
328 Deviant Behavior
422 Social Institutions
423 Sociological Thought
425 The Family
432 Community and Stratification
481 Statistical Methods
490 Seminar
491 Independent Study
494 Research Methods
590 Graduate Seminar
595 Graduate Readings
597 Graduate Research
ANTHROPOLOGY
231 Cultural Anthropology
242 Physical Anthropology
341 Ethnology of American Indians
352 Ethnology of Africa
490 Seminar
491 Independent Study

SOCIAL WELFARE:
271 Introduction to Social Work
365 Social Intervention
463 Sociology of Social Welfare
472 Social Work Practice
473 Interviewing
475,476 Field Experience
491 Independent Study


## special academic programs

Classics

The Departments of Foreign Languages, History, Philosophy and Religion cooperate in offering a Classics area major. This inter-departmental major requires completion of twelve courses selected from the list below in consultation with the program coordinator, Mr. Carleton. For administrative purposes theClassics area major is a program of the Department of Foreign Languages.
The foundation of all majors is a language program in Latin and/or Greek

Lat in 101, 102 Elementary
Latin 201, 202 Intermediate
Greek 101, 102 Elementary
Greek 201, 202 Intermediate
Greek 421, 422 Masterpieces of Greek Literature
The balance of a major is derived from these courses

History 321,322 History of the Ancient World
Philosophy 311 Hellenic Philoso phy
Religion 203 Biblical Literature
Religion 421 Old Testament Studies
Religion 422 New Testament Studies
Independent Study Courses
Selected Interim Courses
The student interested in Classic Literature will want to consider English 231, Masterpieces of European Literature.

Further description of the above courses may be found in the parts of the catalog devoted to each department.

## 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 epartmental 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.

## Natural Sciences and Mathematics -

## 5 Courses:

Earth Sciences 222; Statistical Methods 481 or Mathematics 144; three additional approved courses, such as: Biology 111, Chemistry 103, Chemistry 104, Earth Sciences 101, 131, 202.

## Social Sciences - 4 Courses

Economics 150; Political Science 101 or Sociology 111 or 211; Business Administration 290; and one approved upper-division course, such as: Economics 362, History 461, Physical Education 326, Political Science 354 or 356 , Psychology 330, Sociology 356, 422 or 463.

## Humanities - 5 Courses:

Art 325; English 101; Philosophy: two approved courses, such as: 221, 233, 324, 422 or 434; Religion: one approved course, such as 331 or 430 .

## Integrative Experience - 2 Courses

During the interim and final semester of the senior year, each student would participate in a study/research/action program designed to draw upon the broad background of the above courses and the expertise of his own major field. Appropriate courses will be identified in the Interim Catalog. Sernester courses may include, but are not limited to appropriate departmental seminars, independent study or research courses, field experience and inter nsh ip programs; employment or volunteer service with in community action agencies.

## American Economy Program

The American Economy Program is designed to raise the level of understanding concerning economic principles and pro ced ures among teachers and students in the Pacific Northwest. The program involves a Center for Economic Education recognized nationally by the Jo int Council on Economic Education and by the Northwest 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 teach ing profession. These courses emphasize the role of economics arnong the social sciences and its importance in all areas of life
2) To develop, in cooperation with the school systems of this region, teaching plans and aids that facilitate incorporation of economics into existing curricula.
3) To provide speaking and consulting services for community organizations interested in prornoting public understanding of economic principles and issues.
4) To establish, in cooperation with the PLU Mortvedt Library, a special collection devoted to the teaching of economics.
Further information is available from the Program Director in the Department of Economics.


## options

## Foreign Study Opportunities

As evidenced by the University's expanding foreign interim offerings, the faculty and administration are committed to pursuing well-planned academic experiences in other cultural settings. Foreign language majors, as well as those interested in the humanities and the arts, are encouraged to consider an extended experience abroad. In the recent past, students have pursued stud ies in Germany, Austria, France, and Mexico under a variety of programs including the Goethe-Institute, Central College Programs in Europe and Le Francais in France. These and other opportunities are available through cooperative arrangements with existing programs. Brochures and other information may be obtained from the Office of the Provost and from the respective departments.

The student is cautioned against beginning a program without first securing University approval. The student may obtain a Leave of Atsence form from the Office of the Registrar which will facilitate return to the University at the conclusion of his program abroad. Attendance at a foreign university in no way waives the graduation requirements of PLU.

The student should file a letter of intent with the chairman of his major department and the provost prior to leaving PLU. The letter should outline in broad terms what the student proposes to study, where and at what length of time, and how the foreign experience relates to his academic program. On the basis of this information, plus a record of lectures attended and examinations completed, academic credit will be allowed, but no grade point average will be computed. The University reserves the right to require examinations covering the materialstudied. It is recommended that a solid foundation in the language of the country be acquired before embarking.

Upon his return, the student will, with the assistance of the chairman of the Department of Foreign Languages, prepare a written request for academic credit. If he has pursued his studies in several areas, he will need the approval of each department concerned.

## 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. A special bulletin is printed each semester outlining the offerings, and is available from the registrar of the University.

## 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 is typically a time when the
faculty offers innovative, experimental courses which cover a broad range of contemporary issues and perspectives in many fields. The Summer Session consists of two four and one-half week terms and begins in the middle of June. 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 to 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.

## CHOICE

In 1969, PLU established a research/ education/action arm, Center for Human Organization in Changing Environments. Its acronym, CHOICE, signals its function and style: to initiate processes and programs which will enable many segments of an urbanizing society to participate in making choices which may lead to quality of life in the region. CHOICE serves as the University's link with community action programs and agencies, provides channels for increasing involvement by faculty and students in the community, and aids in implementing the University's role as an agent of social change.

CHOICE sponsors community communication workshops and training programs for groups involved in social
change in such areas as drug use, problems of minorities and disadvantaged, human relations, and continuing education for clergy and laymen. CHOICE provides a computerized resource referral service for faculty and students wishing to contact agencies and organizations in the area.

In 1970 and 1971, CHOICE was a participating member of the Puget Sound Coalition which received national attention as a demonstration of citizen participation centering on quality of life. During 1972 and 1973, the Coalition will focus on issues of the law and justice system

Funded initially by grants from the Board of College Education of the American Lutheran Church, most of the projects of CHOICE are funded by matching grants from state and federal sources, particularly the Washington State Planning and Community Affairs Agency. CHOICE is linked to similar resource centers at the following colleges and universities: Augsburg, Augustana, Concordia (Moorhead) Luther, Texas Lutheran and Capital.

## KPLU-FM, University Radio

Since 1966, the University has owned and operated a non-commercia!, frequency modulation radio station. Committed to serving both the University community and the Southern Puget Sound Region, the facility offers extensive instructional opportunities to students interested in broadcast media. Operating on a frequency of 88.5 megacycles under license from the Federal Communication Commission, the station produces local programs as well as subscribing to such networks as National Public Radio, Deutsche Welle Radio of the Federal Republic of Germany, the Canadian and British Broadcasting Corporations and other program sources.

At its inception, the station broadcast with a power of 10 watts. In late 1971 , the University was granted a construction permit to increase power to 25,000 watts. It is anticipated that within the year 1972, the conversion to the increased power will have been accomplished and broadcast time will have been extended from the present 9 to a projected 18 hours a day.

## Reserve Officer Training Corps Program/(Air Force) Aerospace Studies

Students enrolled at PLU who have been selected for the Air Force ROTC Two-Year Commission Program, and transferees qualified for entry into the Air Force ROTC Professional Officers Course, may enroll in Air Force ROTC Aerospace Studies courses at the University of Puget Sound. Applications are normally accepted from sophomore students during the fall semester preceding the expected date of entry into the , Professional Officers Course. Selection for the course is on a competitive, best qualified basis.

Additional information about Air Force ROTC, its curriculum, admissions and procedures, may be obtained by writing the Professor of Aerospace Studies, University of Puget Sound, Tacoma, Washington, 98416.



## environs

Until recently, education was thought to transpire within the confines of a physical campus. With the advent of accessible transportation, PLU's campus spontaneously acquired an off-campus dimension, an occurrence coinciding with student expectations for an education which is related to the community, the environment and the world. Pacific Lutheran and its immediate environs provide a fascinating potential for "campus" expansion, the benefits of which are reaped by individuals.



Ecologically, Puget Sound is a great place to learn. Long before man's physical environment becamea popular concern, PLU's natural European theatre was attracting admirers. The most conspicuous natural monument in the area is "the mountain" On a clear day, Mt. Rainier's inspiration
is self-evident. The Cascades on the east, the rugged Olympics on the west and cool stands of Douglas Fir complete one of the most naturally tranquil environments in the United States. The dunes of the Pacific are less than two hours away.



Contrasting with this accessible quietude, metropolitan Tacoma and nearby Seattle provide the clamorous learning laboratories native to contemporary urban America. Despite its relative youth, Puget Sound has not entirely escaped the congest ion, decay, and social tensions characteristic of our cities. At Pacific Lutheran, urban problem-solving is a cornerstone of our off-campus dimension. CHOICE (PLU's Center for Human Organization in Changing Environments), student coalitions, religious organizations and formal classes find satisfaction in confronting urban blight with expertise, patience and considerable enthusiasm.



Finally, a quality environment demands a cultural dimension. Again, PLU finds herself in an advantageous position. Puget Sound is heavy with "think" industries and educational institutions which generate considerable interest and diversity in fine and popular arts. A typical weekend in Tacoma/Seattle routinely includes opera or
ballet at the Seattle Center; a wide variety of professional and amateur theatre; resident and visiting symphony orchestras; dozens of galleries and museums; a selection of elegant and unique restaurants; and the full complement of American and foreign films.


Closer to home, campus entertainment is plentiful and inexpensive. Standard fare includes visiting poets, lecturers, performing artists and companies, and an aggressive University Gallery program. In recent years, the University Artist Series has attracted performers of national reputation, including the Winnipeg Royal Ballet, Denver Symphony, the National Shak espeare Company, Claude St.Denis, Carlos Montoya, and the Joffrey Ballet. Not to be outdone by classical enthusiasts, rock and pop patrons have managed to book the likes of the Temptations, B.B. King, Bread, Ike and Tina Turner, the Association, Gordon Lightfoot and the Preservation Hall Jazz Band, to name a few.


## student life

With students representing 38 states and 15 foreign countries, PLU is a residential campus. The residential philosophy views the spacious lawns and plazas, residence halls, recreation areas and the new University Center not as individual islands, but as components of an integrated living/learning environment. Education is for the total person and non-academic experience is as invaluable as it is necessary.

The social development of each student, his interaction with persons of differing life styles, his application of classroom knowledge to his unique living situation and the environment in which this type of learning takes place are elements in the PLU liberal education. In a time when there is considerable talk of meaningful community, the residential campus facilitates genuine relationship among rnembers of the University, regardless of religious, racial or. cultural background.

As a residential campus, the University recognizes its obligation to provide services and facilities which complement the academic environment. As students have assurned increased responsibility for their personal and social behavior, the Office of Student Affairs has turned increasingly to establishirig continuity between student generations and providing services which reflect changing student needs.

The vice president for student affairs and his staff are responsible for organizing and programming residence halls, orienting new students, assisting foreign students, acting as a liaison to the Associated Students of PLU (student government) and coordinat ing other student activities. Of particular note is the Minority Affairs Coordinator, whose specific responsibilities include assessing and communicating the academic, social and related needs of PLU's growing minority contingents. The student affairs staff, from the vice president to the assistant head residents, is geared to providing individual attention to all student problems which are not specifically curricular in nature.

## Responsibilities of Community Life

Because residential living is an integral part of the educational process and because 1700 resident students comprise a reasonably sizable and complex community. the prospective student should be aware of two facts.
First, students should recognize the residential nature of the University. A student not living at home with his parents, guardian or spouse is required to live in a residence hall until he is 22 years of age.
Second, the University admits students with the understanding that they will comply with its regulations. All students are expected to respect the rights and integrity of other members of the community. Conduct which is detrimental to the student, his colleagues, or the University, or which transgressed civil law is grounds for disciplinary action which may result in a person's separation from the University. Specific regulations and reasonable guidelines for residence hall living are outlined in the Student
Handbook which is made available to accepted students during the summer preceed ing their freshman year.

## 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.

Possibilities for aesthetic appreciation are available both to participants and audience by way of music and the visual and performing arts The Choir of the West, Concert Band, and University Symphony Orchestra, a renowned collegiate stage, two art galleries, faculty and student recitals and the Artist Series provide generous opportunities for the performing student, Personal expression is emphasized in debate student government, campus radio 69 KPLU-FM and the weekly newspaper.

Organized and individual physical activites 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 emphasizes development of the individual rather than the search for athletic glory, yet the University's many varsity championships are ind icative of an above-average ability on the part of the student body.

## Religious Life

The University not only acknowledges an academic imperative to explore the religious dimension of life, history and culture in the classroom, but also seeks to give expression to its own Christian heritage and values through the office of the University minister.
The pastoral services of the minister are available to all students who desire them. While forms of ministry may change according to circumstances, the University recognizes the persistent need for the kind of healing, freeing and enabling spiritual force that challenges alienation and encourages authentic relationship among all men, as well as between men and God. To be valid, the Christian presence in higher education must be made meaningful to each generation through proclamation and celebration of the redemptive Word in terms relevant to the realities of the present.

Under the auspices of the Student Congregation and the Religious Life Council a rich diversity of worship opportunities is provided, through which the University aims to further a spirit of community based on openness and mutual respect.

## Special Student Services

THE UNIVERSITY CENTER, completed in 1971, enhances the social and cultural community which begins in the residence halls. Its services include food service facilities, lounges, meeting rooms, bookstore, bowling alleys, music listening room,games room, private dining rooms, Chris Knutzen Fellowship Hall, student government offices, student publication offices, a coffee shop and "The Cave". a free-form student coffee-house and discussion center.
*THE STUDENT HEALTH SERVICE retains the services of physicians and nurses in the Student Health Center on campus. All full-time students are entitled to treatment at the Center for minor disorders and common ailments
*HEALTH AND ACCIDENT INSURANCE if offered by the University on a voluntary basis. The group Accident and Sickness Medical Expense Plan is available at very attractive rates and provides coverage twenty-four hours a day, twelve months a year, anywhere in the world. The plan is available at registration only (fall or spring). A brochure outlining the plan is sent to new students before registration. Copies of th is brochure are available from the business manager.
*THE COUNSELING AND TESTING CENTER
assists students in coping with normal developmental problems. A staff psychiatrist, trained and experienced personnel offering individual and group counseling, and a variety of psychological tests are available to assist students with career planning, educational adjustment and personal problems.
*Details available in the Student Handbook.

PLACEMENT SERVICES are maintained through the School of Education and a general placement office. A $\$ 10$ fee covers the cost of credentials, records and correspondence on the student's behalf. Positions are not guaranteed.

FOOD SERVICES are available for all students. Resident students are required to take their meals in one of the campus dining halls. No deductions are made for students eating fewer than three meals a day because food service tees are based on the fact that not all students eat all meals. A charge is made for guests. Off-campus students may board on campus on a semester basis.

SCHEDULING SERVICES are maintained in the University Center. All university activities must be scheduled through this otfice. Scheduling student activities is a joint responsibility of the University Center Director and the Social Activities Board.


## Living Accommodations/Residence Halls

The vice president for student affairs disdains the use of the word "dormitory" His distinction between a "dorm" and a "residence hall" is more than semantic, the latter being differentiated by convenience, comfort and, most importantly, by a sense of community. Every effort is made to insure the reality of community for each resident. A selection of modern, attractive halls, each with its own traditions and unique advantages, offers each student ample opportunity to establish a living pattern in which he is comfortable. At the sarne time, residents and frequent visitors maintain diversity and exposure to different cultures and styles of living.

Residence halls or their sub-divisions usually referred to as "houses", have study rooms, informal lounges and recreation areas. Kitchenettes and laundry rooms are available and convenient.


Harstad Hall, a six-story, ivy-covered building which at one time housed the entire college, provides a quaint alternative in residence hall life. Its irregularly shaped rooms, high ceilings and paneled walls are rem in iscent of late 19th century collegiate life. Completely refurnished in recent years, Harstad accommodates 250 women in single, double, or triple occupancies.

Kreidler, Hong and Ordal Halls make up three sides of the housing quadrangle on upper campus. All of recent construction, these modern halls for women are tastefully furnished and include attractive lounge facilities.

Stuen Hall, adjacent to the administration building and the upper campus quadrangle, is one of two co-educational halls on campus Stuen is divided in the middle, north wing women, south wing men.
Common lounge and recreation facilities, a common residence government, and common activities encourage considerable hall solidarity. Stuen is usually reserved by upper-classmen.

Pflueger, an attractive brick structure, is the only women's residence on lower campus. It has accommodat ions for 194 women.

Foss Hall, lower campus, is comprised of 16 -man living units which encourage the establishment of personal living environments. The hall is divided into Nordic House (north half) and Olympic House (south half), and provides convenient access to the athletic complex.

Hinder lie Hall, on the south side of upper campus, is the only residence hall in the quadrangle area which is exclusively for men.

Tingelstad Hall, a nine story residence for 392 students, is divided into four distinct houses, each having two floors and names as follows: Cascade House, floors 2 and 3; Ivy House, floors 4 and 5; Evergreen, floors 6 and 7; and Alpine, comprising 8 and 9

Cascade, the second co-educational house, accommodates women on the second floor and men on the third. As with Stuen, Cascade has common lounge, recreational and governmental activities.

The remaining houses (Ivy, Evergreen and Alp ine) are men's residences with lounges, study rooms, and k.itchen facilit ies. Each house is a cohesive unit which encourages participation in intramural, social and academic programs.

In addition to these facilities, the University maintains 26 apartments on 71 campus for married students, both two and three-bedroom units. Applications for family apartments should be made through the Office of the Business Manager, and are processed according to dates received.

The Coed Housing Cornmittee, the Residence Hall Council and the Office of Student Affairs are involved in an ongoing examination of coeducational housing. Additional coed units will become available as demand and situation dictate.


## ACADEMIC AND SERVICE FACILITIES

Tacoma-Pierce Administration Building (1960) houses university administrative offices, classrooms, faculty offices, studios and master control for closed circuit television and a chapel-auditorium.

The Robert A.L. Mortvedt Library (1966), a multi-media learning center, contains over 145,000 published and recorded items and provides an optimum learning environment of comfort and privacy. It also houses University Photo Services and the Computer Center.

Xavier Hall (1937 remodeled 1966), houses classrooms, faculty offices and Central Services.

Ramstad Hall (1947 remodeled 1959) contains laboratory, classroom, library, museum, research and office facilities for the Departments of Biology, Chemistry and Physics

Memorial Gymnasium (1947) provides classroom and activity areas for the School of Physical Education and accommodates intramural and intercollegiate athletics.

Eastvold Chapel (1952) facilitates student worship, concerts, special events and plays. It also contains classrooms, work areas, stage and a radio studio; studios, ensemble practice rooms and individual practice rooms for the music department; and a devotional chapel.

The Swimming Pool (1965) encloses a swimming area 42 by 75 and a diving area 30 to 35 feet as well as dressing room facilities.

Olson Physical Education Auditorium (1969) facilitates campus recreational activities including lectures, the performing Artist Series, popular entertainment and athletic events. Attractions include a Uni-Turfed auditorium and an Astro-Turfed fieldhouse; handball, squash, paddleball and sauna facilities; shower, locker and dressing rooms Additional physical education facilities include lighted tennis caurts, a nine-hole golf course and numerous athletic fields.

The Nursing-Art Complex (1955 remodeled 1971) houses art studios, offices and classrooms as well as offices and special facilities for the department of nursing.

The University Center (1970) includes food service facilities, lounges, meeting rooms, bookstore, bowling alleys, music listening room, game rooms, private dining rooms, Chris Knutzen Fellowship Hall, student government offices, student publications offices, coffee shop and "The Cave", a student operated coffee house.

Columbia Center (1962) contains a cafeteria, coffee shop, bakery and golf pro shop.
Student Health Center houses offices for the University doctors and nurses, out-patient treatment areas and beds for day patients.

The Schoenfeld Greenhouse (acquired 1971) incluaes both cold and warm rooms and a potting area


## admission

Each interested student who applies for admission is considered on his merits, his individual talents and achievements, and regardless of race or faith. We look for academic and personal traits which will enable him to succeed at the University. We adhere to the following criteria in evaluat ing students:

1. Graduation from an accredited high school or evidence of satisfactory work in an accredited college
2. C+ (2.5) grade point average (GPA) and class rank in the upper half for high school students. Transfers must have a 2.0 college GPA.
3. Satisfactory scores on College Entrance Examination Board Scholastic Aptitude Test (CEEB-SAT) or the American College Test (ACT). (Not required of transfers.)
4. Acceptable references.

## Recommended High School Course

It is recommended, but not required, that the high school preparation include : English, 4 units; elementary algebra, 1 unit; plane geometry, 1 unit, social studies, 2 units; one foreign language, 2 units; one laboratory science, 1 unit; electives, 5 units, including typing

## Procedures: Entering Freshmen

Students are admitted for either the fall or spring semester. Admission to the fall term carries permission to attend the previous summer sessions. Spring acceptance approves enroll,ment in the January interirn. We suggest the following application deadlines: fall semester July 1; spring semester - January 1. The following credentials are required:

1. FORMAL APPLICATION: Submit The Uniform Application for Admission to Four-Year Colleges and Universities in the State of Washington. Available from high school counselors or the PLU Admissions Office
2. $\$ 15.00$ APPLICATION FEE: A \$15 fee must accompany your application or be mailed separately. This non-refundable service fee does not apply to your account. Make checks/money orders payable to Pacific Lutheran University and mail to Director of Admissions.
3. EDUCATIONAL TRANSCRIPTS: Your high school transcripts must include all work through your junior year. If you are a high school graduate when you apply, you must present complete academic records
4. REFERENCES: Two character/academic evaluations must be prepared by principals, counselors, pastors or other qualified persons. The PLU Admissions Office will supply the forms.
5. TEST REQUIREMENT: All entering freshmen must submit scores from either the College Entrance Examination Board Scholastic Aptitude Test (CEEB-SAT) or the American College Test (ACT) You are encouraged to satisfy the test requirement in the fall of your senior year, especially if you plan to request financial aid. Registration procedures and forms are available at high school counseling offices.

Application materials may be submitted any time after completion of your junior year. Admission decisions are made after December 1, unless you request an Early Decision. Candidates are generally sent notification with in 10 days of our receipt of the completed application.

## Early Decision

If a high school student has decided upon PLU as his first choice, he may be offered admission as early as October 1 of his senior year. SAT or ACT scores from the previous May or July are acceptable. Early Decision students are given preferential treatment in campushousing and financial aid. An Early Decision form is available from the Admissions Office. If an Early Decision is unfavorable, a student may still be considered for regular admission.

## Early Admission Policy

Qualified students interested in accelerating their educational program may begin work toward a degree after completion of the junior year or first semester of the senior year in high school. Cases of early admission are infrequent and evaluated individually. Minimum requirements:

1. Recommendation from the secondary school and assurance that a high school diploma may be obtained (and in some cases after successful completion of specified college work.)
2. Completion of all graduation requirements except full residence.
3. High school rank in the top quarter.
4. Compliance with general adm issions procedures and policies of the University.

## Procedures: Transfer Students

If you have attended an accredited college, you may apply for admission with advanced standing. Candidates rnust have good academic and personal standing at the previous institution. Usually, a C grade point average (2.0) is required in all attempted college work for regular admission.
The following credentials are required:

1. FORMAL APPLICATION: Submit a formal apelication for advanced standing (form provided by PLU Admissions Office).
2. $\$ 15.00$ APPLICATION FEE: Submit a \$15, non-refundable application fee.
3. TRANSCRIPTS: Official transcripts from all previous institutions must be sent by those institutions directly to the PLU Admissions Office. Official high school transcripts of credits are necessary if they are not listed on college transcripts.
4. CLEARANCE FORM: The Office of the Dean of Students at your most recently attended (full-time) institution must complete a clearance form (provided by PLU Admissions Office).
5. REFERENCES: Two character/academic evaluations must be prepared by instructors, counselors, pastors or other qualified persons. PLU Admissions Office provides the forms.

## Evaluation of Credits

1. The registrar will evaluate all transfer records and create a degree progress chart indicating completion of any core
requirements and total hours accepted. Individual schools and departments will determine which courses will 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 or junior 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 the final seven courses (28 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 5 courses of USAFI credit and up to 5 courses for military credit, providing the total of the two does not exceed $7 \frac{1}{2}$ courses. The University uses the credit recornmendations of the American Council on Education.
3. The University does not grant credit for college level GED tests.

## Transfers and Freshman Applicants

Finalizing All Offers of Admission 1. PHYSICAL EXAMINATION: Before registration, each full-time
student ( $2 \frac{1}{2}$ courses or more) must submit, at his own expense and on the form provided, a physical examination report acceptable to the PLU Health Service. Students are not officially accepted until the report is approved.
2. ADVANCE TUITION PAYMENT: A $\$ 75.00$ advance tuition payment is due following an offer of admission. The payment is the student's acknowledgement of acceptance and guarantees him a place in the student body and reserves housing if requested. It is credited to the student's account and is applicable at the beginning of the term. If circumstances necessitate cancellation of enrollment and the Director of Admissions is notified in writing before May 1, the amount will be refunded. The final refund date for interim is December 15, and for spring semester, January 15.
3. TWO FORMS: A Student Personal Form and an Information and Housing Card must be completed and returned with advance tuition payment.

## Readmission of 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 Admissions Office 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 submit a letter
of petition for reinstatement. Those dropped for academic reasons must identify a faculty member willing to act as a sponsor and adviser if readmitted. Re-entering students who have attended another college in the interim must request that a transcript be sent from that institution directly to the director of admissions. The residency requ irement as stated for transfer students applies al so to re-entries.

## Admission of Non-Degree Students

Persons eighteen years of age or older desiring to enroll in two courses or less may be admitted as non-degree students without submitting application for regular status. Credits earned in this manner will be evaluated as to their acceptability if the student becomes a candidate for a degree. Non-degree students wishing to transfer credits to arother institution will be issued transcripts which indicate the non-degree status.

## Admission to the Division of Graduate Studies

Procedures are outlined in the Graduate Catalog.

## Honors at Entrance

PLU confers Honors at Entrance in accordance with criteria established by those institutions which are members of the CEEB. Honors at Entrance recognizes outstanding high school achievement and anticipates superior performance at the university level. These awards have no intrinsic monetary value.

## Advance Placement Opportunities

1. VIA THE ADVANCED PLACEMENT PROGRAM OF THE CEEB: Students receiving scores of 3, 4, or 5 on College Entrance Examination Board

Advanced Placement Examinations may be given both advanced placement and credit toward graduation. Exact provisions are dependent upon the subject matter field. Inquiries are welcomed by the Admissions Office.
2. VIA LOCAL ADVANCED PLACEMENT EXAMINATIONS: A number of departments and schools offer students the opportunity to take placement examinations so they may be accurately advised as to the level at which they can most advantageously begin their studies. When a student receives a superior score on such an examination, and when his study of the subject matter was not a necessary part of the course work which won him his high school diploma, credit may be granted toward graduation. Inquiries are welcomed by the academic deans and the provost.

## financial aid

The University provides financial aid to students who would be unable to attend without assistance. The aid consists of scholarships, grants, talent awards, loans and opportunities for part-time employment. Eligibility for aid is based primarily on financial need as determined from information supplied on the College Scholarship Service (CSS) Parents' Confidential Statement (PCS). Need is the difference between total student expenses and the amount the student and his family can provide for education. Taken into consideration are income, assets, age of parents, number of children in the family, number in college, and other pertinent factors.

Aid is usually awarded in the form of a "package" consisting of any of the
options listed above. All gift aid for which a student qualifies is awarded first, with any unmet need being met with loans and/or work.

## How to Apply

1. Submit a Parents' Confidential Statement (or Student Financial Statement) to the College Scholarship Service no later than February 1 for maximum consideration. (Available from high school counseling or college counseling offices, the College Scholarship Service, or the PLU Financial Aid Office.)
2. Apply and be offered admission to the University.
3. Submit a PLU Financial Aid application (not required of freshmen)).

## Types of Aid

1. President's Scholarships: Beginning in the 1972-73 academic year, the University will award 40 President's Scholarships of $\$ 500$ each to students in recognition of outstanding academic achievement in high school and in anticipation of superior performance at the college level. These scholarships are made without regard to financial need making all qualified students eligible. To be considered, a student must have a 3.75 high school GPA and be offered admission to the University. These awards are renewable if the student qualifies for the Dean's List (3.3) each year,
2. Gift Aid: Scholarshios, talent awards, University grants, minority grants, foreign student grants, Educational Opportunity Grants (federal) and nursing grants. In addition to its own scholarship funds, the University has at its
disposal the following restricted funds, generally awarded to those students who have completed their freshman year:

Aid Association for Lutherans Scholarship
Altrusa Club, Tacoma Chapter Scholarship

- Alumni Scholarshio Fund

American Association of University Women Scholarship
Frank S. Baker Scholarship
Helen Clift Bell Scholarships
Jorunn Breiland Scholarship Fund
O.A. Brown Fund

Dr. and Mrs. W.B. Burns Fund
Burzlaff Memorial Scholarship
California Scholarship Federation Scholarship for Sealbearers
Carl Dalk Memorial Scholarship
Chao-Liang Chow Scholarship
Ida A. David Fund
Faculty Memorial Scholarship Fund
Faith Lutheran Church of Portland Scholarship Fund
Rebecca Schoenfeld Gardner and Joseph Gardner Scholarship
Olaf Halvorson Scholarship
W.H. Hardtke Seminary Student Scholarship Fund
Rev. Karl Kilian Memorial Fund
Kinsman Awards
Ladies of Kiwanis Award
Drs. Larson, Wicks, Reberger and Elder Scholarship in Medical Technology
Ludvig and Clara Larson Scholarship
Mr. and Mrs. W. Hilding Lindberg Endowed Scholarship
Lute Club Scholarship(s)
Lutheran Brotherhood Legal Reserve Life Insurance Company Scholarships
Mu Phi Epsilon, Tacoma Professional Chapter, Scholarship
Margaret Nistad Memorial Scholarship
Selma and Magnus Nod tved t Scholarship
PLU Faculty Wives Scholarship

Walter Reed Nursing Scholarship
Women of Rotary Scholarsh ip
Siqueland Youth Scholarship, sponsored by North Pacific District Luther League
Social Service Scholarship Fund of the Division of Charities, The American Lutheran Church
Tacoma Lumbermen's Scholarship
Teagle Foundation
Rev. and Mrs. Halvor Thormodsgard Scholarship
Tuberculosis A ssociation of Pierce County Scholarship
Women's Auxiliary of Pierce Medical Society Scholarship
3. Loans: including National Defense Student Loan (NDSL), Nursing Student Loan, Federally Insured Student Loan and various restricted university loan funds which include:
Alumni A ssociation 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. Ekern Fund
Marie Huth Loan Fund
Gerhard Kirkebo Memoria! 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
4. Minister's Dependent and Special Grants: An annual grant of $\$ 200$ "minimum" will be available upon application to all unmarried dependent children of a regularly ordained, active minister or missionary of a Christian church.

If a financial need is demonstrated through the College Scholarship Service, Parents' Confidential Statement, the grant may be increased to a maximum of $\$ 700$. A student must be enrolled full time to be eligible.

Recognized dependents (not including married children) of faculty/staff members may receive special grants, the amount to be announced at the time of registration.

Grants in the amount of $\$ 50$ per semester shall be given to each of two or more students from the same family attending school at the same time, provided that the main support for both is given by their parents and provided they have not received any other University grant or award. Married students are also eligible to receive this grant when both are enrolled as full-time students.

These grants must be applied for in the Business Office at or following registration and will be credited after eligibility has been established.
5. Student Employment: Off-campus and university employment including the work/study program.
6. Law Enforcement Education Program: Loans and grants for those involved in or planning to pursue careers in law enforcement.

Complete details on procedures and particulars of the financial aid program are available from the Financial Aid Office at the University.

## Veterans Affairs

The University is approved by the

Veterans Administration as an institution of higher education for veterans and invites veterans to use its facilities in acquiring and completing their education. Forms are available in the Registrar's Office.

Students including any new transfer students, who will come under Public Law 634 (Orphans Bill) or the Veterans Readjustment Benefit Act of 1966 (New GI Bill), must contact the Veterans Administration Regional Office first for a certificate of eligibility and be guided by them thereafter. This should be done as soon as possible after acceptance by the University and before arrival on campus. During registration all recipients of aid through the Veterans Administration should fill out the questionnaire provided by the Registrar.

In order to obtain full subsistence, undergraduate veterans and eligible orphans of veterans must carry three courses. Graduate veterans should consult the Registrar concerning load for full subsistence, as this may vary. Orphans must carry at least one and one-half courses to claim subsistence.

For information regarding evaluation of credits, see Unaccredited Educational Experiences in Admissions area of catalog

## costs

72-73
73-74
The University maintains its high educational standards at the lowest possible cost. Contributing friends of the University, both individual and corporate, and the support of cooperating Lutheran churches are instrumental in maintaining reasonable tuition rates. In reality, the individual student pays only about $75 \%$ of the actual cost of his education. An
extensive financial aid program, outlined in this catalog, assists students in meeting University costs.

## Tuition

A student at Pacific Lutheran pays only for those courses in which he enrolls. Tuition charges are determined by the number of courses for which a student registers. Depending upon his financial situation, his career goals and his aptitude, a student may arrange his program in a variety of ways No student is penalized for either accelerating or delaying his progress toward a degree. In every case, the student pays only for those courses he needs or desires to fulfill his requirements.
The charge for one full course is $\$ 250.00$ (\$62.50 per quarter course which translates to one semester hour) for up to three courses within a semester. Beyond three courses within a given semester, the rate is $\$ 200.00$ per course $(\$ 50.00$ per quarter course). The schedule of tuition rates is as follows

| $\begin{aligned} & \text { Courses } \\ & 1 / 4-23 / 4 \end{aligned}$ | (Semester Hours) $1-11$ | Costs <br> \$ 162.50 <br> per quarter course) |
| :---: | :---: | :---: |
| 3 | 12 | 750.00 |
| 31/4 | 13 | 800.00 |
| $31 / 2$ | 14 | 850.00 |
| 33/4 | 15 | 900.00 |
| 4 | 16 | 950.00 |
| 41/4 | 17 | 1,000.00 |
| 41/2 | 18 | 1,050.00 |
| above $41 / 2$ | above 18 | 150.00 |

ÍInterim tuition is at the same rate of $\$ 62.50$ per quarter course, except that a student may register for $1 \frac{1}{4}$ courses at the same rate as for one course: $\$ 250.00$ )

## Special Fees

*University Center construction fee, per semester, charged students enrolled in $21 / 2$ courses or more . . . . . . . . . . . . . . . . \$10.00 Audit . . . . . . . . . . . . . . . . . . . . . . . . 50.00
Credit by examination, per course unit of credit sought:

Departmental examination
.25 .00

CLEP
15.00

Late registration lapplicable on and after the first day of classes ...... . . . . . . . . 10.00
Change of registration . 5.00
Master's thesis microfilming and binding,
per copy
18.75

Placement . . . . . . . . . . . . . . . . . . . . 10.00
Graduate nurse examination . . . . . . . . . . 8.00
Nurse locker fee deposit to be paid in clinical area (refundable) . . . . . . . . . . . . . . . . . 1.00 Bowling .10 .00 Skiing (off-campus) . . . . . . . . . . . . . 40.00 Student parking, full-time, year permit . 10.00 Student parking, part-time, year permit . . 3.00 Student health and accident insurance 124 hour, 12 month coverage), optional (fee subject to change by underwriter) . . . . . . . . . . 39.00 *Authorized by Associated Students, PLU. 1972-73 fee will complete ASPLU pledge and fee will not be assessed in 1973-74.

## Private Music Fees

Full-time students - Music Majors Private instruction fee including use of practice rooms, per semester .. \$ 60.00
Full-time students - Non Music Majors Private instruction, including use of practice room, per semester:
One thirty-minute period per week 75.00 One sixty-minute period per week 125.00

## Board and Room

Room with telephone and board is furnished to a resident student, per semester, as follows:

1972-73 1973-74

| Fall semester | $\$ 510^{*}$ | $\$ 530^{*}$ |
| :--- | :---: | ---: |
| Interim (board only)** | 60 | 70 |

Spring semester 410430
*Individuals who graduate in December 1972 (fall only) will be charged $\$ 410$. ( $\$ 430$ in 1973).
** $A$ room fee of $\$ 50.00$ is charged those students requiring rooms who did not reside on campus in the fall semester.
Students rooming off campus will be furnished board in, the University dining halls at $\$ 300$ per semester.
The above rates include three meals per day, Monday through Saturday, and brunch and dinner on Sunday. Meals are not served during Thanksgiving, Christmas and Easter vacations, nor any other days when the residence halls are closed.
Single room occupancy, when available, is by special arrangement with the Director of Housing. The additional charges will be announced at the time of registration.

Family Apartments:
Two bedroom (10 units) including water,
per month . . . . . . . . . . . . . . . . . $\$ 45.00$
Three bedroom ( 4 units) including water,
per month
60.00
Evergreen Court ( 12 apts.) two bedroom,
including all utilities, per month . . . 90.00
Family apartment deposit . . . . . . . 50.00

A deposit of $\$ 50.00$ must accompany a reservation for family apartments. This deposit will be held by the University until the occupant vacates the apartment, or cancels his reservation. One month's advance rent for apartments is required.

## Payments

Semester bills are due and payable at the time of registration unless the optional PLU Budget Plan (described below) is selected. A late charge of $1 \%$ will be made if any payment is not paid when due.
Students receiving scholarships, grants or loans must complete all necessary arrangements well in advance of registration. Students who are securing a loan from financial institutions or agencies (e.g. a federally insured bank loan) which may still be pending at the time of registration, must have a letter of commitment from the lender acceptable to the University.

## Schedule of Tuition Deposits

New students are required to pay a $\$ 75.00$ deposit on tuition after acceptance and before May 1. This is not refundable after May 1 for fall, December 15 for interim, and January 15 for spring semester applications.
Returning students are required to pay a $\$ 75.00$ deposit on tuition which is not refundable after May 1 or January 15 for spring semester applications except for those who enter the armed services.

## PLU Budget Plan

An alternative method of meeting the total educational costs is the PLU Budget Plan Which may be elected by all students. The PLU Budget Plan consists of equal monthly payments beginning

May 10, 1972 or 1973 and concluding April 10, 1973 or 1974. Scholarships, grants and loans will be deducted in arriving at the balance required to be met in the equal payment plan. Complete details, together with examples of how the plan operates, are available from the Business Office.

## Restrictions

The University reserves the right to withhold statement of honorable dismissal, transcript of records, or diploma, until all University bills have been paid, or until satisfactory arrangements have been made with the Business Office. Students will not be permitted to register for a new semester until all bills are paid for the previous term.
Credit for future services to be rendered to the University by the student cannot be used to meet the initial payment. Money due for work performed will be given only if the student's account is current.

## Refunds

Partial tuition refund may be made when withdrawal from the University results from sickness or causes occurring beyond the control of the student. In no case will fees be refunded. Refund may be made in the following proportions.
 Refunds on board will not be made for continuous absences of less than one week and no refund will be made for the first week's absence. A pro-rata refund will be made for necessary withdrawal from the University. No refund will be made for any University trips of any kind, such as choir, chorus, band, orchestra, athletics, and so forth.

## Depository for Students

Students desiring to leave cash in the Business Office may do so. This cash may
be drawn out at the request of the student.

## Personal Property

The University is not responsible for personal property of the students or the faculty members. The University cannot be held accountable for any losses.



## academic calendar 7273

Summer Session 1972

Monday, June 19 Classes begin 7: $\mathbf{3 0} \mathbf{a}$.m.
Wednesday, July 19
Thursday, July 20
Friday, August 18
Friday, August 18
First term ends
Classes begin - 2nd term
Summer Session closes
Worship Service and Commencement

## Fall Semester 1972

Sunday, September 3 - Wednesday, September 6 Orientation and Registration Thursday, September 7 Classes begin 7:50 a.m.

October $13-15$ Homecoming Weekend
Wednesday, November 22 Thanksgiving Recess begins 12:20 p.m. Monday. November 27

Friday, December 15 Thanksgiving Recess ends 7:50 a.m. Semester ends

## Interim 1973

Wednesday, January 3
Tuesday, January 30

Begins
Ends

Spring Semester 1973
Monday, February 5
Tuesday, February 6 Monday. February 19

Friday, April 13
Monday, April 23
Friday. May 25
Sunday, May 27

Registration
Classes begin 7:50 a.m.
Washington's Birthday Holiday
Easter Recess begins 6:00 p.m. Easter Recess ends 4:30 p.m.
Semester ends
Worship Service and Commencement

## $73 \mid 74$

## Summer Session 1973

| Monday, June 18 | Classes begin 7:30 a.m. |
| ---: | :--- |
| Wednesday, July 18 | First term ends |
| Thursday, July 19 | Classes begin - 2nd term |
| Friday. August 17 | Summer Session closes |
| Friday. August 17 | Worship Service and Commencement |

## Fall Semester 1973

Sunday, September 2 - Wednesday, Septernber 5
Thursday, September 6
October 12-14
Wed nesday, November 21
Monday, Novernber 26
Friday, December 14

Orientation and Registration
Classes begin 7:50 a.m.
Homecoming Weekend
Thanksgiving Recess begins 12:20 p.m.
Thanksgiving Recess ends 7:50 a.m.
Semester ends

## Interim 1974

Thursday, January 3 Begins
Wednesday, January 30
Ends

## Spring Semester 1974

Monday, February 4
Tuesday, February 5 Classes begin 7:50 a.m. Monday, February 18 Washington's Birthday Holiday

Friday, April 5 Easter Recess begins 6:00 p.m.
Munday, April 15
Friday, May ? 4
Suriday, May 26

Easter Recess ends 4:30 p.m.
Semester ends
Worship Service and Commencement

## ACADEMIC PROCEDURES

## Registration

The normal course load for full-time students is $31 / 2$ to 4 courses per semester including physical education. A norinal Interim load is one course with a maximuin of $1 \%$. The minimum load for a full-time student is $2 \frac{1}{2}$ courses a semester.

Only a student with a 8 (3.0) average or better may register for more than 4 courses per semester without the consent of the Office of the Provost. A student engaged in much outside work for self-support may be restricted to a reduced academic load.

Now students, who have received notice of acceptance from the Office of Admissions, may register by mail. Other students must regisier on designated days; those failing to do so will be charged a late registration fee.

In the spring semester, students who plan to return in the fall may pre-register by making a $\$ 75.00$ deposit on next year's tuition. A student must register for each new semester on the designated days and is not officially enrolled until his registration has been cleared by the Business Office and his Place of Residence form has been processed.

## Changes in Registration

Registration changes may be made during the first week of the semester without charge. After the first week changes in registration are subject to a $\$ 5.00$ fee. Necessary forms are obtainable from the Office of the Registrar. Students should note that there are 4 week and 6 week limits respectively for adding or dropping courses.

Students officially withdrawing from a class after the fourth week will receive a WP (withdrawal/passing), a WF (withdrawal/failing) or a WM (withdrawal/medical). These grades are not used in calculating grade point average, but will appear on the student's semester grade report and be included in review of academic status. The grade of W replaces WP, WF, and WM on the transcript. An unofficial withdrawal from a course will be recorded as E . No student may withdraw during final examination week.

## Withdrawal from the University

Students wishing to withdraw from the University must obtain a withdrawal form from the Office of the Registrar. It is always to the student's advantage to make his withdrawal official. If he is withdrawing for a specified period of time (e.g. one semester to one year), he may wish to obtain a Leave of Absence form. A student is eintitled to honorable dismissal from the University if his record of conduct is satisfactory and if he has satisfied financial obligations.

## The Grading System

Students are graded according to the following designations:

| A - | 4.0 grade points per course, credit given |
| :--- | :--- |
| B - | 3.0 grade points per course, credit given |
| C - | 2.0 grade points per course, credit given |
| D - | 1.0 grade point per course, credit given |
| E - | 0 grede points per course, no credit given |

The grades listed below are not used in calculating grade point average.
H - credit given (Honors: Used only for courses unique to Interim)
$P$ - credit given (Passing)
F - no credit given (Failing)
1- no credit given (Incomplete)
IP - no crodit given (In Progress: Applicable only to certain courses in which work extends beyond a regular term)

| AU - | no credit given (Audit) |
| :--- | :--- |
| *WF - | no credit given (Withdrawal/Failing) |
| *WP - | no credit given (Withdrawal/Passing) |
| "WM - | no credit given (Withdrawal/Medical) |
|  |  |
|  | "Will appear as W on permanent record |

Incomplete ( ${ }^{\prime} 1$ ') grades indicate that a student is passing but has been unable to complete his work because of circumstances beyond his control. An Incomplete Report Form must be filed for each incomplete given. To secure credit, the incomplete must be converted into a passing grade within six weeks of the following semester of residency, unless an official exception is granted by the provost. After a lapse of two years, incomplete grades cannot be converted. Incomplete grades which are not converted by removal become part of the permanent record but are not computed into the grade point average.

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 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.

## 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 and to no more than two courses per calendar year.
2) Courses required for graduation in a degree program may not be taken under this option except when a first course has been taken prior to declaration of a major.
3) 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 two weeks after the beginning of the semester.
5) Pass--fail students are responsible for all course work and examinations.
6) An entire course will not be converted to the pass-fail option by student vote.

## Exclusive Pass/Fail Courses

Departments or schools are authorized to offer a course exclusively on a pass-fail basis. Such a course 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 be used to meet major or University requirements provided they have been approved by the faculty. Taking exclusive pass-fail courses in no way affects the student's personal pass-fail option.

## Academic Probation

Warning slips are given to any student who is doing " $D$ " or " $E$ " work at the end of the sixth week.

A student is placed on academic probation if he fails to keep his grade point average (cumulatively and for the immediately preceding semester) at or above 2.0. The student and his parents lif the student is under 21) receive official notice of such action. The probationary student may be advised to reduce his academic or extra-curricular activities or both.

The enroliment of a student on probation who fails to earn a cumulative average of 2.0 by the end of his probationary semester is automatically terminated. He may, however, apply for reinstatement to the Academic Status Committee through the provost. To be considered for reinstatement, a student must secure a faculty sponsor. This agreement must be presented in writing to the committee.

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 ( $21 / 2$ courses) is eligible for participation in University activities. Limitation of a student's activities, based on academic performance, may be set by individual schools, departments or organizations. A student on academic probation is not eligible for interscholastic competition; he may also be advised to curtail participation in extra-curricular activities.

## Classification of Students

Freshmen: Students who have met the entrance requirements.
Sophomores: Students who have completed $71 / 2$ courses and have earned 15 grade points.
Juniors: Regular students who have fulfilled lower division requirernents and have completed 15 courses and have earned 30 grade points.
Seniors: Regular students who have completed $221 / 2$ courses and earned $\mathbf{4 5}$ grade points.

## Honors Courses, Graduation Honors

Honors courses are offered by certain departments for students of superior academic ability. Freshmen in the upper ten per cent of their high school classes and with acceptable college aptitude test scores are aligible for consideration. Registration in honors courses is by invitation only.

Degrees with honors of Cum Laude, Magna Cum Laude and Summa Cum Laude are granted. A student must earn an average of 3.30 for Cum Laude, 3.60 for Magna Cum Laude and 3.90 for Summa Cum Laude. Physical education activities are not included in the determining of honors.

## Credit by Examination

Students are permitted, within limits, to obtain credit by examination in lieu of regular enrollment and class attendance. The maximum amount of credit which may be earned in this way and applied toward a bachelor's degree is $7 \frac{1}{2}$ courses ( 30 semester hours).

Individual departments or schools are responsible for determining acceptable test scores as well as the applicability of such course credits toward the fulfillment of specific degree. requirements within academic major programs.

Arrangements for departmental credit examinations must be made by the student with depertmental chairman, dean, or director.

Evidence of this approval and of payment of the fee should be presented by the student to the professor who will administer the examination.

A student may, with the approval of the instructor or the department, gain credit for an audited course which he has not previously taken for credit by passing an examination set by the instructor or departinent. The fee for such examination is the difference between the auditing fee and the tuition the student would normally pay for the course.

Subject to departmental conditions (as presented in paragraph two), the University also allows credit through the College Level Examination Program (CLEP) sponsored by the College Entrance Examination Board. Further inquiries as to fees and procedures should be made to the Counseling and Testing Center of the University.

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 the 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 nor does he receive a grade. If the instructor approves, the course may be entered upon the transcript as an "Audit". With the approval of the instructor or the department a 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 normally pay for the course.

Visiting Clesses. Members of the academic community are encouraged to visit classes which interest them for whatever length of time they desire (students, auditors, faculty and staff personnel, regents, alumni, Guests of the University, and spouses and mature children of these persons.) 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.

## FRESHMAN COURSE SCHEDULE

Students should study the departmental or interdepartmental programs in which they intend to major. If they find no more specific schedule suggestions, or if they have no tentative major preference, they should select courses on the basis of the general guide below. Freshmen will receive help in course selection from their advisers, generally choosing between 3 to 4 courses each semester.

Health and Physical Education ( $1 / 4$ course each semester): PE 100 should be completed during the freshman year but may be preceded by a 200 -level activities course - any of those numbered through 254.

Foreign Language (one course each semester): Either first or second year courses, depending upon the student's preparation and
whether or not he wishes to meet Option I or II of the College of Arts and Sciences.

## English Composition or Proficiency (one course)

Religion (one course): Whenever possible, a religion course should be included in a student's freshman year program.

The remainder of courses should be selected from lower division offerings in the fine arts, history, literature, social or natural sciences or mathematics.

## DEGREE REQUIREMENTS

## Baccalaureate Degree

Baccalaureate degrees are conferred on those students who have completed a minimum of thirty-two approved courses (128 semester hours) with a grade point average of 2.0 (School of Education 2.25 ) and who have met the following requirements for graduation: 1. The completion of a major as detailed by each school or department, consisting of a minimum of six courses, at least three of which must be taken in the junior and senior years and a minimum of two in residence on this campus.
2. A minimum of ten courses numbered 300 or above.
3. Two interim courses, at least one of which is outside the major area of study.
4. A minimum of one year in residence on the campus and completion of at least seven courses during the senior year.

## Basic Core Requirements - All Baccalaureate Degrees

## 1. English Proficiency

A student may meet the English proficiency requirement in one of three ways: (1) by earning a score of 3 or better on the CEEB Advanced Placement Examination in Composition; (2) by earning a passing grade in English 101 (or its equivalent); or (3) by passing the proficiency examination administered each semester by the University English Department. This examination tests the student's knowledge of grammar and usage as well as his ability to communicate effectively in a brief essay.

It is recommended that students entering with a CEEB Verbal score of less than 500 take English 101 during the first semester of the freshman year. Other students should fuifill the proficiency requirement as early as possible, preferably during the freshman year, and usually no later than the second semester of the sophomore year. A junior student who has not demonstrated proficiency will be granted only provisional status until he has successfully done so. No student will be permitted to enroll for his senior year if he has not met the proficiency requirement.

A student who fails the English proficiency examination a second time must enroll in English 101.
2. Fine Arts (1 course)

Met by a course in art, music or communication arts with the exception of the following courses: Fine Arts teaching methods courses, CA 123, CA 380 and journalism courses.
3. History and Literature (1 course, including foraign litarature)

Met by a course from these departments with the exception of Historv 225; English 101, 318, 400 and 403.
4. Philosophy (1 course)

Met by any philosophy course except logic.
5. Religion ( 2 courses)

A lower-division course should be taken before the end of the sophomore year. The second course may be chosen from lower or upper-division offerings, or may be the Senior Seminar, an interdisciplinary offering that will help the student to see the
relevance of religious issues and thought to his major field. Transfer students entering as juniors or seniors meet this requirement with one course from all offerings in the department.
6. Natural Sciences and Mathematics ( 1 course)

Met by a course from these departments with the exception of Earth Sciences 101
7. Social Sciences ( 1 course)

Met by any course from economics, geography, political science, psychology or sociology with the exception of Psychology 110.
8. Physical Education (1 course)

Met by four $1 / 2$-course activities including PE 100; should be met by the end of the sophomore year; all activities are graded on A, Pass or Fail basis.
9. Candidates in the College of Arts and Sciences must meet a foreign language requirement under Option I, II or III as described by that College.

## Limitations - All Baccalaureate Degrees

1. Not more than 10 courses earned in one department may be applied toward the bachelor's degree in the College of Arts and Sciences.
2. Non-music najors may count toward graduation no more than two course units ( 8 hours) in music ensembles.
3. A maximum of six courses ( 24 hours) of correspondence and/or extension work may be counted toward the degree. Any such courses must be approved by the registrar.
4. The maximum number of courses accepted from a junior college is 16 (64 semester hours). No junior college credit will be accepted after a student has completed 16 courses ( 64 hours) from all institutions attended.

## Graduation

Any student expecting to fulfili degree requirements within the calendar year is required to file his application for graduation with the registrar.

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

A student may be awarded more than one bachelor's degree simultaneously provided that at least 7 additional courses are earned for the second degree. A total of 39 acceptable courses would be necessary before the second degree could be awarded.

A student who is within one course of meeting all requirements may participate in May Commencement provided a specific plan for earning remaining credit within ten weeks has been approved by the provost. His status will be designated on the commencement program and his diploma will be dated in August.

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

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

## SPECIFIC REOUIREMENTS

## College of Arts and Sciences

Comprised of these departments and divisions:

Division of Humanities
English
Foreign Languages
Philosophy
Religion
Division of Natural Sciences
Biology
Chemistry
Earth Sciences
General Engineering
Mathematics
Physics
Division of Social Sciences
Economics
History
Political Science
Psychology
Sociology, Anthropology and Social Welfare
Degrees Offered: Bachelor of Arts
Bachelor of Science
Foreign Language/Alternative Requirements
In addition to meeting University Requirements, candidates in the College must meet the requirements of Option I, II, or III:
I. Four courses in one foreign language*
11. Two courses in one foreign language*

One course in logic, math or statistics
One course in history, or one in English or language
111. One course in history, or one in English or language

One course in social science, including geography
One course in natural science
One course in logic, math or statistics
*Option I may be satisfied by four years of high school study in one foreign language. If the student has less than four years, placement and credit would be determined by examination. Freshmen planning to continue in a foreign language begun in high school should take the College Board Plecement Test offered during orientation. (This test is required of those freshmen who plan to study German, French or Spanislı.) Continuation of a foreign language should not be deferred.

Students with 2-3 years of high school language and wishing to continue should register for the second-year course. A student may receive credit for any language course in which he is placed without regard to high school credit. Final decision of placement is made by the Department of Foreign Languages. A student may not receive credit if he voluntarily elects a lower-level course than that in which the department places him.

The foreign language requirement in Option II may be met by satisfacrory 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 tor the B.A. In Education who will be majoring in English are required to fulfill a two-year foreign language requirement or demonstrate equivalenः proficiency.

No course will be allowed to meet both University Requirements and College Requirements. Where possible, courses taken to fulfill requirements shall be in different areas. For example, a student fulfilling his University history or literature requirement with a
course in history if he elects Option II, should choose a course in English or language to meet the requirement of the College.

## 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 chairman (or in Classics by the program coordinetor). Major requirements are specified in this catalog. The quality of work must be 2.0 or better; "D" work may be counted toward graduation but not toward the major.

Recognized majors are:
art
biology
chemistry
chemistry
classics
communication arts
economics
English
physical education physics
political science psychology
religion
sociology
Spanish
(Not more than 10 courses earned in one department may be applied toward the bachelor's degree in the College.)

## SCHOOL OF BUSINESS ADMINISTRATION

Degrees Offered: Bachelor of Business Administration Master of Business Administration (for details, see Graduate Catalog)

Areas of concentration in bachelor's degree: accounting and systems, finance, marketing, and personnel and industrial 87 management.

Requirements: Undergraduate candidates are enrolled in the College of Arts and Sciences for at least one year of prebusiness studies. They may then transfer to the School of Business Administration after a successfully completed freshman year. Students considering graduate level study should seek early planning advice from the faculty concerning appropriate undergraduate course selection.

Accreditation: The undergraduate program is accredited by the American Association of Collegiate Schools of Business and the Northwest Association of Secondary and Higher Schools. The School is affiliated with the American Association of Collegiate Schools of Business as a member of the Assembly of the A.A.C.S.B., the Northwest Universities' Business Administration Conference, the Western Association of Graduate Schools and the Western Association of Collegiate Schools of Business.

For admission requirements, degree programs and curricula, see the School of Business Administration section.

## SCHOOL OF EDUCATION

Degrees Offered: The undergraduate curricula leading to the Bachelor of Arts in Education meet the certification pettern in the state of Washington. See Education section and Graduate Catalog.

Accreditation: The Northwest Association of Secondary and Higher Schools, The Washington State Board of Education and the preparation of elementary and secondary teachers, principals and guidance counselors, with the Master of Arts, the highest degree approved. The accreditation gives PLU graduates reciprocity in twenty-eight states.

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

For adnission requirements, degree programs and curricula, see the School of Education section,

## SCHOOL OF FINE ARTS

Comprised of these departments:
Art
Music
Communication Arts
Degrees offered: Bachelor of Fine Arts
Bachelor of Music
Candidates for the B.M. and B.F.A. degrees must meet University requirements and the specific requirements of the Departments of Music, Art or Communication Arts

For admission requirements, degree programs and curricula, see the respective departmental sections.

SCHOOL OF NURSING
Degree offered: Bachelor of Science in Nursing
Accreditation: Washington State Board of Nursing and the National League for Nursing. Graduates successfully completing the State Board Examinations (Registered Nurse) are qualified to fill first level staff nursing positions in health agencies.

For admission requirements, degree programs and curricula, see the Nursing section of this catalog.

## SCHOOL OF PHYSICAL EDUCATION

For program details, degrees offered and curricula, see the Physical Education section of this catalog.

## DIVISION OF GRADUATE STUDIES

The Division of Graduate Studies is an all-university division coordinating and integrating the work of the schools and departments which provide graduate level work. The University offers the following graduate level programs*:

## Master of Arts

1. Education
a. Elementary or Secondary School Administration: For those wishing to qualify for the provisional or standard principal's credential (elementary, secondary or general). Students may major in this field without qualifying for a principal's credential.
b. School Counselor Program: For those wishing to qualify as public school counselors (elementary and secondary) or student personnel workers in higher education.
c. Elementary Classroom Teaching: For those wishing advanced work in elementary teaching or wishing to qualify as elementary school supervisors or consultants.
d. Secondary Classroom Teaching: For those wishing to increase their preparation for teaching in an ares of social science.
2. Humanities

A degree program designed for librarians, clergymen, teachers and others who wish to extend and broaden their understanding and appreciation of the various fields of the humanities
3. Social Sciences

A degree program designed for personnel workers in industry, welfare workers, librarians, clergymen, teachers and others
wishing to extend and broaden their understanding and aporeciation of the various fields of the social sciences.

## Master of Business Administration

A degree program designed to provide a thorough foundation for responsible leadership in business.

## Master of Music

A degree program designed to provide advanced study in three basic areas: music education, performance, theory and composition.

## Mester of Natural Sciences

A degree program designed especially for teachers who need to extend and broaden their knowledge in the fields of science and mathematics.
*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.

## SPECIAL PROGRAMS FOR CAREERS

## Engineering

The University offers two programs leading to careers in engineering. One, a four-year program, leads to a Bachelor of Science in Engineering Physics; the other is a pre-engineering program for students who will transfer to an engineering school.

The engineering physics program prepares students for employment in many diverse industries or for graduate studies in one of many areas of engineering. Optional courses at the junior-senior level have been selected to fill the needs of students with special interest in civil engineering, electrical engineering, mechanical engineering and others. A more complete description of the Engineering Physics program is given in the Physics section of the catalog.

The primary program for transfer students, referred to as the 3-2 program, may alsn lead to a degree from Pacific Lutheran University. Students spend three years on this campus studying subject matters basic to all engineering fields and basic University core courses in humanities and social sciences. Two additional years of full-time study in a specific engineering discipline at another engineering school will be required to become eligible for an engineering degree. After successful completion of the equivalent of 32 courses including the general University core requirements normally after one year at the other engineering school, students may apply for the B.S. degree from Pacific Lutheran University.

Under some circumstances, qualified students may be accepted into the 2-2 plan by which they may transfer to an engineering school after spending two years at Pacific Lutheran University. Two more years at the engineering school lead to the B.S. degree from that engineering school.

To facilitate transfer of engineering students, PLU currently maintains 3-2 cooperative plans with a number of major state and private engineering schools both within and outside of the state of Washington.

All pre-engineering studerits should apply for admission into the program as eerly as possible and not later than their sophomore year. They should consult the pre-engineering adviser to formulate their plans both with respect to the type of engineering they wish to study and the engineering school to which they plan to transfer.

## Law

Most law schools require at least three years of liberal arts
studies; however, they regard four years of liberal arts studies and a Bachelor of Arts degree as better preparation for the study of law. In addition to meeting degree requirements, the prospective law student is advised to complete at least one year of accounting and one course each of economics, history, philosophy, political science, psychology, sociology and speech. The student should plan his course sequence according to requirements of the law school in which he is interested.

Students interested in law are urged to register at the Pre-law Center in the Department of Political Science. Information on the Lawschool Admission Test (LSAT), a circulating library of law .school bulletins, and a newsletter, The Pre-Law Advocate, circulated by the Center and other useful materials are available. In addition, the student may wish to discuss his program with the pre-law adviser, or with one of the law school professors and deans who visit from time to time.

## Medicine and Dentistry

Students desiring to enter the medical or dental professions should plan to devote not less than three years and preferably four years of study to securing the broad educational background required. Professional schools in these fields require a thorough preparation in science. They also recommend extensive study in other areas including the social sciences and humanities. Early in the first semester of attendance at PLU the student should consult with the pre-medical/predental advisers in the Biology Department.

The pre-medical and pre-dental curricula are not majors in themselves. The student should select whatever major is of interest to him and should follow the requirements for that major. In addition to whatever other major requirements the student may have, he should complete the following courses:

Biology 153, 154, 253; Chemistry 115, 142, 331, 332, 333, 334; Math 133 (or equivalent), 151 (and preferably 152); Physics 101, 102; English 101 (a course must be taken; the examination is not sufficient);-Foreign Language (students who enter the University with two years of a modern foreign language may elect to take a second year course in the same language during the freshman year. They should register for 201,202 .)

## Bachelor of Science ir, Medical Technology

Students pianning careers as medical technologists in hospitals, physician's offices, or public health bureaus should consider earning a bachelor's degree in chemistry or biology. A student must then complete a twelve-month internship in an American Medical Association accredited hospital laboratory. Upon completion of this internship, the student is eligible to take the examination given by the Board of Registry of Medical Technologists of the American Society of Clinical Pathologists for certification as an MT (ASCP) and to receive a second degree, the B.S. in Medical Technology.

Early in the first semester of attendance at PLU, students should confer with the medical technology adviser in the Biology Department.

The following courses are required: Chemistry 115, 142, 321, 331, 332, 333, 334; Biology 153, 154, 275; Mathematics 133. Very strongly recommended: Physics 101, 102. Also recommended: Biology 331, 346, 441; Chemistry 404. Students must refer to their major department for the remainder of major requirements.

## Parish Work

Students desiring to enter parish work are encouraged to obtain a Bachelor of Arts degree. A parish worker is requested to perform duties in more than one field. Responsibilities may be centered in
one or more of these areas: congregational education work, guidance of youth activities, home visitation, office and secretarial work, or conducting musical organizations. Students considering church vocations are invited to confer with the chairman of the Department of Religion or the assistant to the president for church relations.

## Pharmacy

A student may take a sequence of courses at PLU in preparation for further work in pharmacy. The following schedule has been approved by the School of Pharmacy at the University of Washington as being equivalent to the first two years of their 5-year course leading to the Bachelor of Science Degree in Pharmacy.

Freshman year: (first semester) Chemistry 115, Mathematics 133 (may be omitted if trigonometry was taken in high school), English 101, P.E.; (second semester) Chemistry 142, Mathematics 151, Communication Arts 123, Religion 103 (103 will transfer as an elective).

Sophomore year: (first semester) Chemistry 331, 333, Biology 153, Physics 101, elective; (second semester) Chemistry 332, 335. Biology 154, Physics 102, P.E.

## Social Welfare

Students planning graduate social work study or empioyment in social work, social welfare or other related human services should work out their program in consultation with a social worker in the Department of Sociology, Anthropology and Social Welfare.

The social work sequence is open to any student and consists of Social Welfare courses $271,365,472,475$, and 476 . This sequence should be preceded by foundation courses in the humanities, natural sciences, and social sciences. This will be followed by an appropriate sequence of supporting courses in economics, political science, psychology and sociology. Courses should be selected in consultation with a social worker in the department. Choice of foundation and supporting courses is based on the guidelines provided by the Council on Social Work Education.

## Theology

Pre-theological students should complete the requirements for the Bachelor of Arts degree. Besides the general degree requirements, the American Association of Theological Schools recommends the following:

English - literature, composition, speech and related studies. At least 6 semesters.

History - ancient, modern European and American. At least 3 semesters.

Philosophy - orientation in history, content and method. At least 3 semesters.

Natural Sciences - preferably physics, chemistry and biology. At least 2 semesters.

Social Sciences -- psychology, sociology, economics, political science and education. At least 6 semesters, including at least 1 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 4 semesters.)

Religion - a thorough knowiedge of Biblical content together with an introduction to major religious traditions and theological problems in the context of the principal aspects of human culture outlined above. The student may well seek counsel from the serninary of his choice. At least three semesters.

Of the possible majors, English, philosophy, religion and history are regarded as the most desirable. Other areas are, however, acceptable.

A faculty adviser will assist the student in the selection of courses necessary to meet the requirements of the theological school of his choice. Please consult the chairman of the Department of Religion

## Urban Affairs

Students wishing to prepare themselves for career possibilities in state and local government may wish to enroll in the Urban Affairs Program. Administered in the Department of Politicai Science, the program consists of an interdisciplinary concentration of eleven courses. For further information refer to the description under Political Smence.

## COURSE OFFERINGS: <br> SCHOOLS AND DEPARTMENTS

Listed in this section are course descriptions and summaries of degree requirements for majors and programs in the College of Arts and Sciences, and the Schools of Business Administration, Education, Fine Arts, Physical Education and Nursing. Detailed degree requirements, often including supplementary sample programs, are available in each student's personal advising booklet which he receives as a freshman. The University advising system is designed to facilitate optimum exposure between the student and his adviser for the purposes of tailoring degree programs to the individual student's needs and insuring that all University and departmental requirements are met within the student's projected tenure at the University.

## Course Numberings

101.299 Lower Division Courses: Open to freshmen and sophomores* uniess otherwise restricted.

300-499 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 chairman, director 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 the approval of his adviser and the course instructor, a lower division student may be assigned to an upper division course if prerequisites have been met.

## Course Offerings

Most listed courses are given every year. A system of alternating upper division courses is practiced in some departments, thereby assuring a broader course offering. 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

The number after the course title indicates course credit given. Unless otherwise specified, each unit has the value of one course credit. 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
I II 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 on graduate programs as a major

## Consent

In a course restricted "consent", consultation with the course instructor is recuired prier to enrollment, unless otherwise specified.


## ART

No formal entrance standards are maintained by this department. Students are encouraged to select courses relating to their interest as early as possible in order to reasonably determine aptitude and suitability for this area of study. Transfer students wishing advanced standing must submit a portfolio of previous work to the chairman of the department.

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

Use dr materials fee required in certain courses.
BACHELOR OF ARTS: Minimum of seven art courses including: $110,160,250,230$ or $350,365,370$ and a course in art history. A maximum of ten courses may be applied toward this degree. Candidates are registered in the College of Arts and Sciences and must complete all its requirements.

BACHELOR OF FINE ARTS: Minimum of fourteen art courses including: 110, 160, 250, 260, 230 or 350, 365, 370, 499 (if equired), three additional courses in art history, and electives in ares of emphasis to complete requirements. Courses in art teaching methods may not be included. Students are encouraged to choose an area of emphasis by their junior year. Areas include: Pictorial Media (drawing, painting, printmaking), Materials Media (sculpture, ceramics, glass, metals), Multi-Media, or Art History. Candidates are registered in the School of Fine Arts and must complete all its requirements. Foreign Language is not required in programs with studio emphasis. For art history emphasis, French and/or German is required as determined by the student's adviser.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

## STUDIO

Basic media courses may be repeated for credit as noted, for two or three semesters as approved.

## 160 DRAWING

Techniques and media of drawing with emphasis on composition. I II

230 CERAMICS I
Ceramic materials and techniques including hand-built and wheel thrown methods, clay and glaze formation. Includes a survey of ceramic art. I II

250 SCULPTURE I
Various techniques and materials of sculpture and their influence on three-dimensional form. Includes study of the human figure. I II

## 260 LIFE DRAWING

A multi-media exploration of human form. May be repeated for credit. Prerequisite: 160 or consent. II

326 FILM MAKING
Theory and practice of photography as an art form. Alternating sections in still photography or cinematography. May be repeated for credit. I II

330 CERAMICS II
Advanced techniques in ceramic construction and experiments in glaze formation. May be repeated for credit. Prerequisite: 230. I II

338 GLASSBLOWING
Working techniques and individual expression in blown glass.
May be repeated for credit. Prerequisite: one semester of ceramics and consent. 1 II

341 ELEMENTARY ART EDUCATION ( $1 / 2$ )
Various projects and media suitable for the instruction of art in the elementary school; emphasis on developmental theory. I II

350 SCULPTURE II
Concentration on a particular medium of sculpture. Alternating semesters in metals or wood, or other media on an occasional basis. May be repeated for credit. Prerequisite: 250. I II

365 PAINTING
Media and techniques of painting with emphasis on an individualized expression. May be repeated for credit. Prerequisite: 160. I II

370 PRINTMAKING
Media and methods of printmaking, with alternating semesters in planographic techniques or intaglio techniques. May be repeated for credit. Prerequisite: 160. I II

492 STUDIO PROJECTS
A tutorial course with individual investigation in a particular medium, for major students only; media and instructors will be announced each semester. May be repeated for credit. Prerequisite: Senior status and consent of instructor and department chairman. I II

494 GRAPHICS WORKSHOP (1/2-1)
Design and execution of printed materials under the direction of the university graphics coordinator; emphasis on technical procedures and problems in mass communication. Prerequisite: consent. III

## 499 B.F.A.CANDIDACY EXHIBITION (no credit)

Exhibition of undergraduate work by B.F.A. candidates in studio areas; students are responsible for scheduling, installation, publicity and final disposition of work.

## HISTORY AND THEORY

110 THE VISUAL ARTS
Western man's expression in the visual arts seen through the perspective of historical development. I II

280 TWENTIETH CENTURY ART
Visual arts in the twentieth century, with an introduction to aesthetical theory. II

325
HABITAT AND ENVIRONMENT
Human habitats and settlements as expressions of socio-cultural influences. Emphasis on contemporary
environmental problems as they relate to individual life styles and community planning. I

382 ANCIENT ART
Art of the ancient Near East, Greece and Rome. I a/y
383 MEDIEVAL ART
Western European styles from the decline of Rome to the beginning of the Renaissance. II a/y

384 RENAISSANCE ART
European art of the fifteenth and sixteenth centuries with an emphasis on Italian developments. I a/y

385 BAROQUE ART
Styles in European art from the late sixteenth century through the period of the Rococo. II a/y

440 SEMINAR IN ART EDUCATION ( $1 / 6$ )
A study of instruction in the secondary and higher schools including appropriate media and curriculum development. II

487 NINETEENTH CENTURY ART
Art of the nineteenth century from neo-classicism through Post Impressionism. I

490 SEMINAR ( $1 / 2-1 / 2$ )
Selected topics considering some aspect of the visual arts. May be repeated for credit. Prerequisite: consent.

497 RESEARCH IN ART HISTORY
A tutorial course for major students with research into a particular period or area of art history. May be repeated for credit. Prerequisite: Senior status and consent of instructor and department chairman. I II

## RESEARCH

For Master of Arts candidates who elect to write a research paper in art. I II

## BIOLOGY

A student wishing to major in biology is required to apply in writing to the department. This may follow satisfactory completion of Biology 153, 154 or approved equivalent. Transfers may apply for major status only after completion of one biology course at PLU. Each student must submit a proposed course of study and should secure assistance of a faculty adviser for this purpose. Students accepted for major status will be notified.

BACHELOR OF ARTS DEGREE: Seven biology courses: 153, 154, 253; one course from each of three core groups listed below; and one approved elective. Required supporting: English 101 (English Proficiency Exam may not be substituted); foreign language (Option I or II) two years of chemistry (Chem. 115, 142 preferred for one year, Chem. 331, 332, 333, 334 required for other year) and Math 133 or equivalent. Strongly recommended: Physics 101, 102 and Math 151. A maximum of 10 biology courses may be counted toward graduation.

BACHELOR OF SCIENCE DEGREE: Ten biology courses: 153, 154, 253; one course from each of three core groups listed below;
and four approved electives. Required supporting: English 101 (The English Proficiency Exam may not be substituted), foreign language (Option I or II); two years of chemistry (required: 115, 142, 331, $332,333,334)$; one year of physics $(101,102)$ and math through 151. A maximum of 10 biology courses may be counted for graduation.

CORE GROUPS: Candidates for the B.A. or B.S. in Biology must take one course from each of the following groups: GROUP I: Bio. 275, 340 , or 364; GROUP II: Bio. 331, 346, 444 or Chem. 404*; GROUP III: Bio. 424, 475 or Anthro. 242*.
*Not given biology credit but satisfies group requirements. Student would elect a biology replacement to fulfill major requirements.
BACHELOR OF ARTS IN EDUCATION: See School of Education.

## 111 BIOLOGY AND MODERN MAN

A liberal arts course for non-biology majors; selected topics which relate to man's history and future, his art and well-being; the environment, reproduction and birth control, population, heredity, evolution and biological controls. Lectures, laboratories and discussions.
*153 CELL BIOLOGY
An introduction to cellular and molecular levels of biological organization; cell ultra-structure and physiology, energy transduction, molecular genetics and biochemical development. Required of all biology majors. Prerequisite: co-registration in Chemistry or consent of department chairman. (Formerly listed as 152).

* 154 ORGANISMAL BIOLOGY

An introduction to higher levels of biological organizations; organisms discussed in relation to their interacting organ systems, classification, evolution and ecology. Required of all biology majors. Prerequisite: 153 and co-registration in Chemistry or consent of department chairman. (Formerly listed as 151).
*161 HUMAN ANATOMY
Gross and micro-anatomy of the human body; dissection of the cat and other mammalian organs. Not open to majors except by special permission from department chairman. Prerequisite: one biology course.
*162 HUMAN PHYSIOLOGY
Functions of major human organ systems; emphasis on control and regulatory mechanisms. Designed for physical education and corrective therapy majors. Not open to biology majors except by permission of department chairman. Prerequisite: 161.
*201 MICROBIOLOGY FOR NURSES
The growth, control, physiology, isolation and identification of micro-organisms, especially those which affect man. Prerequisites: 111 and Chem. 103 or consent.

## *253 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
*Denotes laboratory sessions.
exchange, vascular systems, orientation and navigation, and interaction between organisms. Prerequisite: 154; first year chemistry recommended.

## *275 MICROBIOLOGY

The structure, physiology, genetics, metabolism and ecology of micro-organisms. Prerequisite: 253 or consent; one semester organic chemistry recommended.

- 321 ORNITHOLOGY( $1 / 2)$

The study of birds with emphasis on local species; designed for -students with hobby interests as well as for advanced biology students. Field trips. Prerequisite: $\mathbf{2 5 3}$ or consent.

* 324 NATURAL HISTORY OF VERTEBRATES

Classification, natural history and economic importance of vertebrates with the exception of birds. Field trips. Prerequisite: 253. a/y 1972-73
*331 GENETICS
The chemical nature of the gene, mechanisms and regulation of genetic expression, variations in chromosomal structure and number, and population genetics. Prerequisite: 253 and Organic Chemistry.
*340 PLANT DIVERSITY AND DISTRIBUTION
A systematic introduction to plant diversity. Interaction between plants, theories of vegetational distribution, higher plant taxomomy. Prerequisite: 253.
*346 CELLULAR PHYSIOLOGY
Ueals with how cells are organized to keep alive; enzyme kinetics and regulatory mechanisms; structure and synthesis of proteins and nucleic acids; energy metabolism; membrane structure, permeability and transport phenomena; functional ultrastructure. Prerequisite: 253 and Organic Chemistry.

347 CELLULAR PHYSIOLOGY LABORATORY
Accompanies Cellular Physiology; experience in techniques and types of instrumentation inclucling cell fractionation, determination of metabolic sequences, use of radio tracers, protein assay, membrane phenomena, ultracentrifugation, spectrophotometry, Warburg respirometry. May be elected only by students with a serious interest and need for this type of training. Co-requisite: 346 and consent.
*361 COMPARATIVE ANATOMY
A comparative study of vertebrates with dissection of representative forms. Prerequisite: 253.
*364 VERTEBRATE EMBRYOLOGY
Vertebrate embrvo deveiopment from germ cell through embryological states untii birth. Prerequisite: 253.
-372 GENERAL ENTOMOLOGY
Classification and natural history of insects with emphasis on laboratories, field studies and collections. Prerequisite: 253. a/y 1973-74
*375 BIOLOGY OF PARASITISM
Parasitism as a mode of life; the nature of the parasite and of

[^0]the host-parasite association; studies within the gamut of parasitic forms including viruses, other micro-organisims and plant and enimal parasites. Prerequisite: 253 or consent.

- 380 BIOLOĞY TEACHING RESOURCES

Methods, materials and resources loi preparing lecture, laboratory and field work in major areas of biology; designed for all eaching levels. Special preparations required. Prerequisite: 253 or consent.

- 411 HISTOLOGY

Microscopic studv of normal tissues and organs of vertebrates. Prerequisite: 253.

424 ECOLOGY
Living organisms iri relation to their environment. Prerequisite: 253.
*425 BIOLOGICAL OCEANOGRAPHY
The ocean as emvironment for plant and animal life; waves, currents, tides and other physical factors; natural life zones of the ocean, their characteristics including fauna and flora, and adaptions of the biota to the zone. Field trips. Prerequisite: 253.

426 ECOLOGY LABORATORY (1/2)
Field study of local ecosystems. Prerequisite: 253; 424 recommended.
-435 PLANT FORM AND FUNCTION
Plant structure, function alld reproduction; emphasis on seed producing groups. Prerequisites: 253; Chemistry 142. Organic Chemistry recommendeci.
*441 VERTEBRATE PHYSiOLOGY
Principle vertebrate organ systems and functions emphasizing homeostatic relationships; laboratory includes experiments in circulation, electrocardiography, endocrine function, respiration, sensory mechanisms, body fluid chemistry, temperature regulation and an introduction to animal surgery. Prerequisites: 253 and Organic Chemisiry. Cellular Physiology recommended.
*444 PLANT PHYSIOLOGY
Plant growsth from seed to flower; seed germination, water relations, respiration, growth, grawth regulators, photosynthesis and other light effects on plant life cycles. Prerequisites: 152 and Organic Chemistry; Cellular Physiology strongly recommended.

475 EVOLUTION
How living organisms change in relation to their environment; mechanisms of population adaptation and speciation which led to the present diversity of life. Prerequisite: 253.

490 SEMINAR (1/4)
Selected topics in biology based onl literature and/or original research. Cpen to junior and senior biology majors.

491, 492 INDEPENDENT STUDY (\% $\%$ ½)
Investigations or research in areas of special interest not
*Denotes laboratory sessions.
covered by regular courses; open to qualified junior or senior majors; a student should not elect independent study unless he knows in advance the soecific area he wishes 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 $1 / 4$ credit) and the next semester actually carrying out the project (for another $1 / 4$ credit). The student will not be permitted to use $491-492$ for filling in a deficiency in his program. Prerequisite: written proposal for the project approved by a faculty sponsor and the department chairman. Obtain appropriate form from the chairman.

## $597,598$ GRADUATE RESEARCH ( $1 / 2-1)$

Prerequisite: Graduate standing and prior approval of the student's graduate adviser.

## BUSINESS ADMINISTRATION

Undergraduate students are admitted to the School of Business Administration upon successful completion of at least six courses in arts and sciences with a cumulative grade point average of 2.0 or above, and declaration of business administration as a major in the registration process. Transfer students are expected to have maintained the grade point average of 2.0 separately in both business and non-business courses. Assignment of a business faculty adviser is requir $\mathbf{d}$.

Graduate students are admitted to the School of Business Administration when they meet the requirements specified in the procedures of the Division of Graduate Studies.

BACHELOR OF BUSINESS ADMINISTRATION: 281, 282, 290, 350, 364, 370, 453, 455, and two upper division electives. Required supporting: Economics 150, 481 and one upper division economics course; Math 127 or 151 or equivalent. A total of sixteen courses outside Business Administration is required.

BACHELOR OF ARTS IN EDUCATION: See School of Elucation.

MASTER OF BUSINESS ADMINISTRATION: See M.B.A. brochure.

BUSINESS ADMINISTRATION COURSES
Courses numbered 100-299 are available to all students.
Courses numbered 300-499 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 graduate programs who have an approved supporting field in business. Consent of the Dean is required for other studients.

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

4 - business education and general servic
5 - personnel and industrial management
6 - finance and related subjects
7 - marketing and distribution
8 - accounting and information systems
9 - specialized and predominantly independent studies

## 241 BUSINESS COMMUNICATIONS

Applied skills and techniques in business communication;
letters of inquiry, orders and acknowledgement sales and promotional communications, claims and adjustments correspondence, credit and collections letters, briefings and busi ness reports, resumes and application letters.

243 FAMILY FINANCIAL PLANNING
Consumer saving, spending and planning techniques; inteliigent buying and budgeting, estate and tax planning, insurance and investment programs, retirensent planning; etnical issues in government and business from the consumer viewpoint; consumer organization and influence in finance, marketing and production.

FINANCIAL ACCOUNTING
An introduction to accounting concepts principles; preparation and analysis of financial reports.

282 ACCOUNTING INFORMATION SYSTEMS
Management information systems; accounting and economic data, their use in planning and control. Prerequisite: 281 or a complete course in accounting principles.

290 LAW AND SOCIETY
Governmental regulation of relationships between individual citizens, groups and the governmental agencıes and branches; the rights and obligations of individual citizens and corporations; administrative law and the procedures and practices of courts.

- 350 MANAGEMENT

Administration in industrial and other organizations; classical and behavioral perspective on management techniques, planning, organization, direction and control; case analysis and problem-solving techniques.

- 364 MANAGERIAL FINANCE

Financial analysis: funds and cash flows, financial statements and other financial information; financial planning and budgeting, capital expenditure budgeting, cost of capital; financial strategies and decision-making; expansion and dividend policies. Prerequisites: 282 or equivalent and Economics 150 and 481.

REAL ESTATE
Land use planning and commercial development; demand factors, governmental control in 20 ning and regulation, real estate investment analysis.

RISK AND INSURANCE MANAGEMENT
The main function and institutions of the insurance business. This is a consumer-interest course designed to increase the student's understanding of the alternatives available to him in life and health insurance as well as in property and liability insurance. While the primary emphasis is on insurance from the consumer's point of view, some attention is accorded the theoretical basis for the insurance function.

- 370 MARKETING SYSTEMS

The flows of goods and services in the economy; economic and behavioral approaches to demand analysis; marketing function in a business firm; determination of the marketing mix: product policy, pricing, channels of distribution, marketing communications.

INTERMEDIATE ACCOUNTING
Valuation theories for assets and liabilities; related effects on incoms determination. Prerequisite: 281 or a complete course in accounting principles.

383 INCOME TAXATION
Income tax concepts, regulations and tax planning principles; individua! and corporate income taxatıon. Prerequisite: 281 or equivalent.

385 C.OST ACCOUNTING
Concepts of costs in developing information for management; the determination of income, evaluation of capital investrment alternatives and the measurement of performance. Prerequisite: 282.

387 DATA PROCESSING SYSTEMS
A computer laboratory course; basic program and system analysis and flow charting; programming languages, emphasis on FORTRAN; computer hardware and software systems. Prerequisite: $\mathbf{2 8 2}$ or consent.

450 MANUFACTURING MANAGEMENT
Scientific management; planning products, physical facilities, equinment and materials for production; supervision and control of personnel; production control; purchasing and inventory management. Supervised student projects and major case studies. Prerequisite: 350 or equivalent.

## 453 PERSONNEL AND INDUSTRIAL RELATIONS

Behavioral processes of individuals and groups in business organizations; policy issues and specific problems in managing human iesources; industrial relations and personnel management in industry and other organizations. Prerequisite: $\mathbf{3 5 0}$ or equivalent.

455 BUSINESS POLICY
Formulation of policies to integrate all functions of business; social, ethical, religious, economic, educational, international implications in the formulation of policies and objectives; comprehensive case analyses. Prerequisite: Senior standing with thorough knowledge of business functions or consent.

456 HONORS SEMINAR
Management theory and related subjects to meet objectives similar to 455. Prerequisite: 3.0 GPA in at least four business courses, including: $281,282,290,350$. Other students admitted only by faculty invitation. Students who complete this course may be excused from 455 by the Dean.

461 INVESTMENTS
Types of stocks and bonds; various investment risks; securities markets and market fluctuations; examination of macroeconomic considerations and industry characteristics; investment analysis of corporations and appraisal of their securities. Prerequisite: 364 or consent.

464 FINANCIAL MANAGEMENT
Problems of working capital management, planning the financial structure, issue of new securities, major financial policies; cases and advanced readings. Prerequisite: 364 or equivalent.

MARKETING MANAGEMENT
Analytical approaches to marketing problems; marketing strategies; planning and administering comprehensive marketing programs; evaluation and control of marketing operations. Prerequisite: 370 or equivalent.

471 MARKETING RESEARCH AND CONSUMER BEHAVIOR Marketing research in the decision-making process; research design, survey methods, research instruments and sampling plans as they relate to marketing consumer products and services in a changing environment; contemporary behavioral concepts examined and incorporated in selected projects. Prerequisite: 370 and Economics 481 or equivalent.

472 ADVERTISING AND SALES MANAGEMENT
Advertising and personal selling in the marketing program; market targets; developing market potentials; media selection; designing the promotional message; evaluation and control of the promotiona! mix. Prerequisite: 370 or equivalent or consent.

INDUSTRIAL MARKETING AND PURCHASING
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. Prerequisite: 350 and 370 or equivalent.

482 ADVANCED ACCOUNTING
Comprehensive accounting for corporations; accounting aspects of consolidations, mergers and partnerships, treatment of incomplete data; specialized concepts related to funds and cash flows, statement analysis, estates and trusts. Prerequisite: 381 or equivalent.

## AUDITING

Auditing as applied to major balance sheets and income accounts; standards used by CPA's; professional ethics. Prerequisite: 482 or equivalent.

SYSTEMS ANALYSIS AND DESIGN
Systems theory, including: simple and complex operating systems; tools of systems analysis and control; a student-selected project on a systems related topic such as: the nature of control, tcols of systems analysis, a study of a specific system or computerized information systems design.

SEMINAR
Specifically selected business topics; offered on dernand. Prerequisite: consent.

DIRECTED STUDY
Supervised individual study and readings. Prerequisite: consent.

BUSINESS LAW
Procedures, contracts, agency, negotiable instruments, business organizations, property, trusts and wills, transportation, insurance and employment.

ORGANIZATIONAL ENVIRONMENT
Management, explored in relation to contributions from industrial psychology and sociology; external and internal social and economic environmental changes as related to planning; groups and work teams as related to the functions of directing and controlling. Major case studies. Prerequisite: 350 or equivalent.

SEMINAR IN MANAGEMENT
Solutions for 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: 350, 550 and a working knowledge of quantitative methods.

- 555 BUSINESS STRATEGY AND POLICY

Management functions of planning, organization and control. Prerequisite: Thorough graduate level knowledge of analytical methods and functional fields of business management, last semester standing in the M.B.A. program.

- 564 SEMINAR IN FINANCIAL MANAGEMENT

Management's role in framing financial policies; case studies in the determination of needs, sources and uses of funds; the development of financial structures, evaluation of alternative financial plans and allocation of funds within the firm, the control of financial resources. Prerequisite: $364,550,582$, or equivalent.

- 570 SEMINAR IN MARKETING MANAGEMENT

Marketing management policies and programs; interrelated elements of the marketing mix and the relationship of marketing to other internal functions; changing social environment, innovation and modern marketing philosophies. Prerequisite: Strong economics background and 370 or equivalent.

SEMINAR IN FINANCIAL ACCOUNTING THEORY
Advanced accounting concepts and standards; current problems and trends reflected in accounting literature; designed for professional accountants. Prerequisite: 482 or equivalent or consent.

ACCOUNTING INFORMATION AND CONTROL
Applications of accounting information, services and systems to management problems. Students excused from this course are expected to complete 581 or other advanced accounting studies. Prerequisite: $\mathbf{2 8 1}$ or equivalent.

## SPECIAL SEMINAR

Selected advanced topics; offered on demand. Prerequisite: consent.

591 INDEPENDENT STUDY
Individual reading and studies on selected topics; minimum supervision after initiat planning of student's work. Prerequisite: consent.

RESEARCH COLLOQUIUM
Supervised individual intensive study of either the case collection process and problem-solving approaches
(completion of case research, including a comprehensive commentary and !iterature summary, acceptable for inclusion in Intercollegiate Case Clearing House Bibliography), or a formal research tudy for a thesis. Registration for a minimum of one semester is required for all M.B.A. students. Prerequisite: Last semester standing in M.B.A. program.

## CHEMISTRY

The courses, curriculum, faculty and facilities of the Department of Chemistry are approved by the American Chemical Society. Graduates completing the prescribed program will be certified as having met requirements of the American Chemical Society for entry into the chemical profession.

BACHELOR OF ARTS: 115,142 or $152,321,331,332,333$, 334, 341, 342, and 343. Required supporting: Two courses in physics; mathematics through 152; German (Option I or II), Russian or French.

BACHELOR OF SCIENCE: As above plus Chemistry 344, 497, and one of $401,404,422$, or 432 .

The foreign language requirements of the College of Arts and Sciences should be fulfilled under Option I by the study of German, required for American Chemical Society certification. Russian or French are acceptable substitutes for the Bachelor of Science degree; with permission of the department. Option II may be accepted for the Bachelor of Arts degree.

To receive ACS certification, a student must complete 422, 432 and an additional upper division course in chemistry, mathematics or physics. Although no more than 10 courses in chemistry may be applied toward the 32 course graduation requirement, the research requirement may be met with a half course during the academic year or by a summer experience without academic credit. In some cases studerits earning ACS certification will need more than a total of 32 courses to the extent that chemistry course credit exceeds 10 courses.

BACHELOR OF ARTS IN EDUCATION: See Schoo! of Education. 103 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. I

104 ENVIRONMENTAL CHEMISTRY
Basic aspects of chemical bonding and descriptive inorganic chemistry; chemical aspects of environmental pollution. May follow 103 or 115 for students desiring a second chemistry course. II

115 GENERAL CHEMISTRY
The structure of matter, atomic and molecular theory, quantitative relationships; suitable for science majors and others. Prerequisite or corequisite: Mathematics 133. I

132 PRESENTATION OF EXPERIMENTAL WORK $(1 / 4,1 / 2$, or 1$)$ An honors course in chemical laboratory practices involving individual projects supervised by faculty members; oral and written reports. Prerequisite: one course in college chemistry and invitation of the department.

142 SYSTEMATIC INORGANIC CHEMISTRY
Study of the elements grouped according to the periodic table, chemical equitibrium, radiochemistry and inorganic qualitative analysis. Prerequisite: 103 and 104, or 115 . II
152 SYSTEMATIC INORGANIC CHEMISTRY HONORS
Chemistry of the elements including chemical equilibria and kinetics, coordination compounds, electro and nuclear chemistry, qualitative analysis and an individual project; honors level study which replaces 142 for selected students. Prerequisite: 115. Corequisite: Mathematics 152. II
QUANTITATIVE ANALYSIS
Chemical methods of quantitative analysis, including volumetric, gravimetric, and selected instrumental methods. Prerequisite: 142; Mathematics 133. I
331, 332 ORGANIC CHEMISTRY
An interpretation of properties and reactions of aliphatic and aromatic compounds on the basis of current chemical theory. Prerequisite: 103 and 104 , or 115 . Corequisite: 333,334 . I II
333, 334 ORGANIC CHEMISTRY LABORATORY $(1 / 4,1 / 4)$
Conventional and modern techniques of synthesis, separation, reactions, and analysis of organic compounds. Must accompany 331, 332 . 1 II

341, 342 PHYSICAL CHEMISTRY
The relationship between structure, energy content, and physical and chemical properties of chemical systems. Prerequisite: 115; Math 152; Physics 102 or 253 . I II

343, 344 PHYSICAL CHEMISTRY LABORATORY $(1 / 4,1 / 4)$
Methods and interpretation of measurement and calculation of physical and chemical properties. One semester required for B.A., both semesters for B.S. Corequisite or prerequisite: 341, 342. I II

401 ORGANIC QUALITATIVE ANALYSIS
Methods for the isolation and identification of organic compounds, including modern spectrophotometric and chromatographic techniques; systematic procedures for searching the chemical literature. Prerequisite: 332 and 334.1
404 BIOCHEMISTRY
Chemistry of biological systems, including laboratory methods. Prerequisite: 332 and 334. II

ADVANCED INORGANIC CHEMISTRY
Modern inorganic theory including atomic and molecular structure, periodic trends, and coordination compounds; advanced laboratory techniques for inorganic synthesis. Prerequisite or corequisite: 342 and 344. II
432 INSTRUMENTAL ANALYSIS
Theory and practice of instrumental methods for chemical analysis and molecular structure determination. Prerequisite: $321,341,343 ; 342$ and 344 are either prerequisite or corequisite. II
491 INDEPENDENT STUDY $(1 / 4,1 / 2$ or 1$)$
Library and/or laboratory study of topics not included in regularly offered courses. Proposed project must be approved bv department chairman and supervisory responsibility accepted by an instructor. May be taken more than once. I II
497 RESEARCH ( $1 / 2$ or 1 )
Experimental or theoretical investigation comprising
previously unpublished work. Open to upper division students with consent of department chairman. May be taken more than once. I II

597, 598 GRADUATE RESEARCH ( $1 / 2$ to 1 )
Open to master's degree candidates only. Prerequisite: consent of department chairman.

## COMMUNICATION ARTS

All students majoring in Communication Arts will participate in some phase of dramatic, forensic and broadcasting co-curricular activities.

BACHELOR OF ARTS: At least eight courses in one or a combination of the three aress of concentration: of which Communication Arts 123 is required:

Drama: Suggested courses: $241,250,344,351,354,363$, plus one elective in drama, all selected in consultation with the adviser.

Public Address: Suggested courses: 128, 232, 241, 327, 333, 335, 344, selected in consultation with the adviser.

Broadcasting: Suggested courses: $123,241,272,275,374$, plus three CA electives, all selected in conjunction with the adviser.

BACHELOR OF FINE ARTS: At least thirteen courses in one or a combination of the three areas of concentration: of which Communication Arts 123 is required:

Drama: Suggested courses: $241,250,344,351,352,354,356$, $358,363,374$, plus at least one dramatic literature course and one elective, all selected in consultation with the adviser.

Public Address: Suggested courses: 128, 232, 236, 241, 327, $333,335,344$, plus four CA electives, all selected in consultation with the adviser.

Broadcasting: $241,271,272,275,283,284,344,374,377,385$, plus two CA electives, all selected in consultation with the adviser.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

123 FUNDAMENTALS OF ORAL COMMUNICATION
Foundations course dealing with basic theories of oral communication. Emphasis on group activity with some platform work. I II
$125,225,325,425$ COMMUNICATION ARTS PRACTICUM $(1 / 4)$ Forensics Competition, Drama Pracricum or Broadcasting Practicum. $1 / 4$ course credit may be gained each semester, but only 1 course total may be used to meet university requirements. Majors are required to take at least two practicums in the major area of interest. Departmental consent required. I II

128 ARGUMENTATION AND DEBATE
Argumentation, evidence, proof and the adaptation and application of argument to various types of oral communication; emphasis on forms of debate, their preparation and presentation. II

161 INTRODUCTION TO THE THEATRE
Theatre as a fine art and its contribution to the culture of a people; the correlation between playwright, designer, actor, director and their influence in relation to one another. I

PARLIAMENTARY LAW (1⁄2)
Parliamentary law based on Robert's Rules of Order; practical work predominates. II

232 CONTEMPORARY ORAL DISCOURSE
The significance of rhetoric ("the process of adjusting ideas to people and people to ideas") during various stages of Western culture from the classical period to the present; rhetoric of contemporary issues including: war, poverty, religion and civil rights; emphasis on independent investigation, classroom reports and discussion. II

236 PERSUASION
The decision-making process in contemporary society; methods of appealing to human motivations and their application in platform experience. II

241 ORAL INTERPRETATION OF LITERATURE
The art of reading literature to an audience, interpreting it experientially, logically and emotionally; individual and group readings. I II

250 FUNDAMENTALS OF ACTING
The actor, his work, his natural and learned skills; exercises in memory, imagination and observation; improvisations and scenes from modern plays; theory and practice of stage make-up. I

271 BROADCAST MEDIA - MAN AND SOCIETY
Historical, philosophical and sociological aspects of the media; its impact on man and society. Lecture and laboratory. I

272 THE BROADCASTER AND SOUND ( $11 / 2$ )
The theory and structure of sound for the broadcaster; instruction and practice in the use of typical audio control equipment in radio, TV and recording studios. II

275 RADIO PRODUCTION
Elements of radio production; analysis of program design, writing for radio and production tools and techniques. Lecture and laboratory. Extensive use of KPLU-FM studio facilities and equipment. I

283 JOURNALISM (1/2)
News communication for print and electronic media; analysis of the journalist's audience, representative media, journalistic vocations; social and legal responsibilities of the news writer. 1

284 JOURNALISM/NEWS WRITING (1⁄2)
Journalistic reporting of community and state affairs; interaction of news media and government; copy editing, headline writing, news display, illustration, typography, printing processes. Prerequisite: 283. II

327 EXTEMPORANEOUS SPEAKING
Platform work predominates; special emphasis on gathering material, methods of preparation and delivery. Prerequisite: 123 or departmental consent. I

333 FOUNDATIONS OF COMMUNICATION THEORY
Communication principles, theories and research relevant to both the speaker and the listener. I

335 AMERICAN PUBLIC ADDRESS
Critical study of selected American speeches, speakers and controversy from Jonathan Edwards to the present. Effectiveness of methods and styles examined within historical context. I

344 ADVANCED INTERPRETATION OF LITERATURE
Projects and exercises directed toward program planning; advanced skills in reading aloud; the art of making literature live. Prerequisite: 241 . II

351 STAGE TECHNOLOGY
Basic theory and procedure of technical aspects in set building, costume construction, basic drafting, scenery, the assembling, handling, and management of the stage. I

## 352 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: 351. II

354 PLAY DIRECTION
The role of the director, historically and critically; an introduction to play directing in which each student directs and produces a one-act play, accompanied by an annotated 99 director's script and a theoretical/practical analysis. Prerequisite: 250, 351 and junior status. II

## STAGE LIGHTING

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

## 358 ADVANCED ACTING

Study of the work of an actor; character analysis and embodiment, using improvisations and scenes from plays; includes styles of acting. Prerequisite: 250. Il a/y

363 HISTORY OF THE THEATRE
Theatre and drama in representative societies: early Greece and Rome, Asia, Renaissance and modern Europe, America and others; individual research and participation. I a/y

374 TELEVISION PRODUCTION
Analysis of program design, writing and production tools and techniques; lecture and laboratory; extensive use of KPLU-TV studios. II
377 BROADCAST MANAGEMENT (1 12 )
Factors in station management, programming, labor relations, political and legal considerations, station promotion and community relations. I

380 SPEECH SCIENCE AND PATHOLOGY
Anatomy, physiology and physics of the speech process; phonetics and the production of all sounds in the English language; basic principles and therapy of speech correction;
remedial procedures designed for articulation, voice, stuttering and language disorders; rehabilitation of the brain damaged and cleft palate handicapped. II

385 JOURNALISM/EDITORIAL TECHNIQUES (1⁄2)
Workshops to include: advanced newswriting, public relations writing, magazine writing and design. Prerequisite or corequisite: 283 or 284 . I II

402 SPEECH IN THE ELEMENTARY CLASSROOM (1⁄2)
Speech problems and opportunities which confront the teacher, grades one through eight. II

404 SPEECH IN THE SECONDARY SCHOOL (1/2)
Curriculum construction, speech philosophy; co-curricular activities: administration of drama, radio and forensic activities. II

450 CHILDREN'S THEATRE WORKSHOP
Formal dramatics, kindergarten through high school; production of a three-act play or equivalent; student involvement in direction, stage management, lighting and all other phases of production. S

459 SUMMER DRAMA WORKSHOP
One session of intensive work in drama; acting, stage management, lighting instruction and all other phases of production. S

474 TELEVISION AND THE CLASSROOM TEACHER $(1 / 2)$
Television as a teaching tool; general criteria for technology in teaching and specific criteria for the use of television in the classroom. II

478 SUMMER TELEVISION WORKSHOP
Creative and production techniques of television programming; extensive use of KPLU-TV studios; for the mature student. S
491, 492,493 SPECIAL STUDIES IN COMMUNICATION ARTS ( $1 / 2,1 / 2,1$ )
596, 597. 598 RESEARCHIN COMMUNICATION ARTS $(1 / 4,1 / 2,1)$

## EARTH SCIENCES

BACHELOR OF ARTS: Minimum of six courses including 131, $132,202,324$ (ES) 325 plus an additional course in geology. ES 360 or 365 recommended. Required supporting: At least two courses in each of two other natural science fields.

BACHELOR OF ARTS IN EDUCATION: See School of Education
101 WORLD GEOGRAPHY
Patterns of physical, climatic and ecological features and their relation to man. 101 does not meet the natural science requirement. I

122 INTRODUCTION TO PHYSICAL SCIENCE
An integration of the sciences of chemistry, geology, meteorology and physics which considers the physical nature of the earth: its materials, processes, history and
environment; intended for students with no previous background in chemistry, geology or physics. I

## PHYSICAL GEOLOGY

Concepts of large-scale processes: sea-floor spreading, continental formation, formation of the earth's physiographic features; laboratory study of rocks, minerals and geologic mapping; field trips are arranged. I

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

136 DESCRIPTIVE ASTRONOMY
The moon, the solar system, the coordinate systems for locating stellar objects and characteristics of stars.

202 GENERAL OCEANOGRAPHY
Oceanography and its relationship to other fields; physical, chemical, biological, climatic and geological aspects of the sea; field trips. II

222 CONSERVATION OF NATURAL RESOURCES $(1 / 2)$
Principles and problems of public and private stewardship of our resources with special reference to the Pacific Northwest.

323 MINERALOGY
Crystallography and mineralogy, both ore and rock forming minerals. Prerequisite: 131 and high school chemistry or consent. II

324 PETROLOGY
The occurrence and classification of common rock types; processes by which they were formed with reference to theoretical principles. Prerequisite: 131 or consent. II a/y

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. II a/y

351 NATURAL HISTORY OF THE PACIFIC NORTHWEST (1½) 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. S

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: One year of college laboratory science or consent. S

LACIAL GEOLOGY
Glacial ice, deposits and land forms resulting from the

Pleistocene glaciation in North America. Field trips included. Prerequisite: One year of college laboratory science or consent. S

BIOLOGICAL OCEANOGRAPHY
See Biology 425
SEMINAR ( $1 / 4$ or $1 / 2$ )
491. 492 INDEPENDENT STUDY ( $1 / 14-1$ )

## ECONOMICS

BACHELOR OF ARTS: Minimum of eight courses including 150, 351, 352, 481, 486, two upper division economics electives and BA 281. Economics 481 and BA 281 are excluded from the ten course limit in the major.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

## -150 PRINCIPLES OF ECONOMICS

Introduction to the scope of economics, including Macroand Micro-Economics; analysis of U.S. economic system; emphasis on current economic policy. I II

## 290 CONTEMPORARY ECONOMIC PROBLEMS

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

321 HUMAN RESOURCE ECONOMICS
The nature and treatment of human resource problems in the United States: wage determination, unionism, collective bargaining, unemployment, poverty and discrimination, investment in human capital and manpower policies. Prerequisite: 150 or consent. I

331 INTERNATIONAL ECONOMICS
Regional and international specialization, comparative costs, international payments and exchange rates; national policies which promote or restrict trade. Prerequisite: 150. I

351 INTERMEDIATE MACRO ECONOMIC ANALYSIS
Nationa! income determination including policy implications within the institutional framework of the U.S. economy. Prerequisite: 150.1

## 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. II

361 MONEY AND BANKING
The nature and function of money and credit institutions; relationship of money and bank deposits to the national economy. Prerequisite: 150. II

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. I

## DEVELOPMENT ECONOMICS

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

## GOVERNMENT AND THE ECONOMY

The relationship between public and private sectors in the U.S. economy. I

## STATISTICAL METHODS

Descriptive statistics: measures of position, dispersion and proportions. Inferential statistics: estimation and testing of hypotheses by parametric and nonparametric techniques, regression and correlation analysis. I II

486 READINGS IN THE 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 neo-classical economists, and the Keynesians. II

490 SEMINAR ( $1 / 4$ to 1 )
Seminars on selected economic topics are offered as circumstances warrant. Prerequisite: Consent.
491,492,493 INDEPENDENT STUDY $(1 / 4-1)$ Prerequisite: consent.

- 504 MANAGERIAL ECONOMICS

Basic economic concepts applied to policy formation and operating decisions; reference to such problems as cost, demand, pricing and investment. Prerequisite: 150.

- 543 QUANTITIVE METHODS

The concepts of probability, sampling, and statistical decision theory applied to managerial problems. Prerequisite : 481.

591,592,593 INDEPENDENT STUDY
599 THESIS ( $1 / 4$ to 1 )

## EDUCATION

## Admission

In the sophomore year, a student with a cumulative grade point average of 2.15 may register for Ed. 201 and will at that time make application for admission to the School of Education.

Students become candidates for the Bachelor of Arts in Education degree when they have met the following requirements:

1) Have earned a cumulative of 2.25 after completion of Ed. 201 and prior to admission to the professional sequence courses. Students must have C or better grades in English 101 and in Psych. 101 or Soc. 111.
2) Have completed CA 123.
3) Have ideals and personality qualities which make for successful teaching.
4) Have a clearly defined purpose or goal.
5) Have selected a preferred level of preparation and the area or
areas of concentration to be followed.
6) Have comp!eted satisfactorily the screening program.
7) Have received approval during an individual conference with representative(s) of the School of Ed.
The candidate is required to maintain these standards in order to retain his standing in the School.

Students who have taken the Bachelor's degree at PLU or another institution and who contemplate meeting certification requirements are expected to meet the same requirements for admission. The certification sequence will normally require a summer session and two semesters, or three semesters.

## Curriculum Requirements

In addition to the general University courses required in all curricula, certain specific requirements in general education must be met:

1) History 255 , required of all elementary teacher candidates, and all secondary candidates with a major or minor in a social science.
2) ES 101 required of all elementary teacher candidates.
3) Prospective elementary teachers usually meet the science general education requirement by completing Bio. 111, or other life science, and ES 122. A year course in one laboratory science may be substituted by those who have adequate high school background in the other sciences.
4) PE 295 is required of all teacher candidates.

## CERTIFICATION

Guidelines for the preparation and certification of teachers have been established by the State Board of Education. The recommended program pattern includes: broad liberal education, 35 per cent; subject matter specialization, 35 per cent; professional study, 20 per cent; and electives, 10 per cent.

The four-year curriculum leads to the Bachelor of Arts in Education degree and the Provisional Certificate, an initial license to teach, issued for a period of three years. PLU recommends the candidate for the first teaching position on the basis of his preparation.

Authorization for elementary teaching requires student teaching in the elementary school, three courses of professionalized subject matter, and nine courses of subject matter specialization.

Authorization for secondary teaching requires student teaching in the secondary school and eleven to twelve courses of subject matter specialization in approved teaching areas.

Authorization for elementary and secondary teaching requires student teaching at both levels. Students who elect to change levels will be expected to meet the minimum requirements as given above for the new level. Any teacher may complete his preparation for a new level during the fifth year of college.

## Fifth Year and Standard Certification

The fifth year of teacher education is to follow a pe; ind of one year of initial teaching experience. The student must complete a minimum of two courses applicable toward the fifth year, before the beginning of the fourth year of teaching. Seven and one-half courses must be completed before beginning the seventh year of teaching. The student may choose the institution in which he wishes to take his advanced work as follows:

1) If he chooses to work at PLU, or any other of the teacher education institutions in this state, that institution shall be responsible for recommending him for the Standard Certificate upon successful completion of the fifth year program.
2) If the PLU graduate wishes to undertake the fifth year in an, out-of-state institution, PLU will be responsible for recommending him for the Standard Certificate. The student must secure general approval of his plan from the University in advance.

There are four provisions governing the fifth year pattern of work, according to State Board Regulations:

1) The fifth year must include a minimum of 30 semester hours (seven and one-half courses) of which at least fifty per cent must be upper division and/or graduate courses.
2) No more than eight semester hours of extension and/or correspondence study may be approved as a part of the 30 semester hours (seven and one-half courses) in the student's fifth year program.
3) Graduates must take 15 semester hours (three and three-quarter courses) of the fifth year in residence at PLU. A transfer student who wishes to be recommended by PLU must take a minimum of 20 semester hours (five courses) in residence at PLU.
4) The student may take 15 of the required 30 semester hours prior to or during the first year of teaching experience with prior permission of the School of Ed.
Following are requirements and procedures for the approval of fifth year programs of work at PLU.
5) Specific course requirements are:
(a) Ed. 467 , or its equivalent. (Ed. 473 may be used by elementary teachers.)
(b) Ed. 463, (Elementary) or Ed. 465, (Secondary).
6) Any courses recommended for the individual student prior to the granting of the Bachelor's degree must be taken. These may be recommended by either the undergraduate adviser or the School of Ed.
7) 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 the student with the guidance of those who have worked with him during his period of initial teaching and the advisers at the recommending institutions.
8) The student secures 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 the M.A. Graduate students may undertake a program coordinating requirements for standard certification and the M.A. upon the approval of their committee chairman and the coordinator of fifth year programs.

## Principal's Credentials*

The candidate for the principal's credentials will be guided by the following:

1) He must meet graduate standards for the M.A. degree.
2) He must work toward the provisional principal's credentials at his chosen level. To receive this he must have completed work for his Standard Teaching Certificate plus six semester hours (one and one-half courses).
3) He must complete experience and study requirements for the Standard Principal's Credential at his chosen level. To receive this he needs to have (1) had administrative experience, (2) earned a minimum of eight more semester hours since issuance of the Provisional Certificate, and (3) earned his M.A.
Students who intend to work toward the M.A. in the field of
education must apply for admission to the Graduate Division and meet the requirements outlined by that Division. Candidates should see the course requirements as set forth in the Master of Arts brochure.**
*Details of the program are available at the School of Education upon request.
**Available at the office of the Dean of Graduate Studies upon request.

## Certification Requirements for School Nurses

Provisional Certificate:

1) Registered nurse licensed in the State of Washington, and
2) Bachetor's degree in a program accredited (or approved) for first-level positions in public health nursing, or Certificate in Public Health Nursing (or equivalent) with three years of successful supervised experience in a public health programi which includes experience in school nursing.
3) Completion of a minimum of ten semester hours (two and one-half courses) of professional education courses including practice teaching or directed laboratory experiences in a school situation.
Standard Certificate:
4) Two years of successful experience in school nursing as a school nurse under the Provisional Certificate and
5) Master's degree with a major in school nursing or its equivalent in Public Health Nursing.

Professional Education Courses for School Nurse Certificate Professional education courses recommended for meeting the requirement of a minimum of 10 semester hours (two and one-half courses) are as follows: Ed. 201 or $321 ; 463$ or Soc. 422 or 465 ; 552; 575 or 585 .

Laboratory experiences in a school situation will be provided on an individual basis.

## Preparation of School Librarians

## (Learning Resources Specialist)

Students interested in preparing for the responsibility of administration of a school library may meet suggested standards through the following program:

1) Book and media selection

Ed, 455 - Instructional Materials . . . . . . . . . . . . . . .½ course Ed. 456 - Storytelling . . . . . . . . . . . . . . . . . . . . . .1⁄2 course English 323 - Children's Literature . . . . . . . . . . . . . 1 course
2) Cataloging

Ed. 453 - Processing School Library Materials . . . . . .½ course
3) Reference

Ed. 452 - Basic Reference Materials . . . . . . . . . . . . 3/4 course
4) Media utilization and production

Ed. 454 - Selection of Learning Resource Materials . . $1 / 2$ course
5) Curriculum

Ed. 580 - Curriculum Development . . . . . . . . . . . . .1⁄2 course
6) Administration

Ed. 451 - Administration of the School Library . . . . . $1 / 2$ course
Professional Course Requirements
201; 322 (primary) or 323 (upper elementary) or 423 (secondary); 325 (elementary) or 420 (secondary); 430 (primary) or 432 (upper elementary) or 434 (secondary); 435 (required for students enrolled
in 430 or 432 ) and professional education courses in subject area methods and guidance ( $1 \frac{1}{2}$ courses) secondary.

In addition, there are specific requirements in the area of laboratory experience:
(a) September Experience

During at least one September following the successful completion of Ed. 201, and prior to Student Teaching, the student is required to observe and to participate in activities during the opening days (preferably two weeks) of school. This September Experience may be either in his home town or in the local area. Plans and definite assignments must be approved by the School of Ed. before the end of the preceding spring semester.
(b) Student Teaching

A successful experience in student teaching is vital to the student's career. It is therefore recommended that the student carry not more than four courses during his student teaching semester. It is also expected that outside work or college activity will be kept to a minimum. Exceptions te these recommendations are allowed only by special permission.

## PROFESSIONALIZED SUBJECT MATTER

## Elementary School Teaching

In the area of Professionalized Subject Matter a minimum of 3 courses is required from the following courses: Art 341*; CA 402; Ed. $325^{*}, 326^{*}, 408^{* *}, 410,412^{* *}, 455,457,483^{* *}, 597$; English 323; Music $340^{*}$; PE 322.
*Required of all elementary teacher candidates
**Open to student teachers or experienced teachers only.

## ACADEMIC PREPARATION

Teaching Areas:Business Education; Fine Arts (art or music); Physical Education; Language Arts including English (composition, literature), foreign language, communication arts (including drama), and journalism; Science and Mathematics including biological and physical sciences and mathematics; Social Sciences including history, sociology, political science, economics, geography and psychology.

## Preparation for Senior High Teaching: 11 to 12 Courses

A student preparing for senior high school teaching must complete approximately 11 courses in the area in which he plans to teach. This normally consists of a teaching major of 6-8 courses of study in one department, supported by 4-5 courses in related departments. A student, with the approval of his academic adviser, may elect to complete a departmental minor of 4 to 5 courses in another ares applicable to teaching in the senior high school. In either case, the adviser from the major area will assist the student in planning his program.

Teaching majors are offered in the following fields: art, biology, business education, chemistry, communication arts, economics, English, French, German, physical education, history, mathematics, music, physics, political science, science (general and earth sciences), social sciences, sociology, and Spanish.

## Preparation for Junior High Teaching: 11 to 12 Courses

A student preparing for junior high school teaching normally must complete a teaching major of 6 to 3 courses and a minor of 4
to 5 courses in another area.
Students planning to teach on the junior high school level should confer with the School of Ed. regarding combinations of teaching fields which would be most appropriate. An adviser from the major area assists the student in planning his program.

Teaching majors and minors are offered in the general areas of fine arts, physical education, language arts (including English, journalism, communication arts, German, French, and Spanish), science lincluding biology, chemistry, physics, general science, and ealth sciences) and mathematics, and social sciences.

## Preparation for Elementary Teaching: 12 Courses

A student preparing for elementary school teaching normally must complete 6 courses in a major teaching area, and two minors consisting of 3 courses each. One of the minors must be in professionalized subject matter; and one in a teaching field other than that covered in the 6 -course concentration

In general, the teaching major ( 6 courses) for elementary school teachers follows the teaching major required for junior high teaching. The courses included in the two minors are to be determined in consultation with the School of Ed.

## ART

Senior High Teaching Major: $11 \frac{1}{2}$ courses* required: Art 110,160, $20.260,230$, or $350,365,370,440$, two courses in art history plus electives.

Junior High Teaching Major: $7 \frac{1}{2}$ courses required: Art 110, 160, 240, 230 or $350,365,440$ plus electives. Teaching Minor: 5 courses required: $110,160,235,230$ or 350 , and 365 .

Elementary Teaching Major: 6 courses required: Art 110, 160, 250,341 and two of $230,350,365$ or 370.
Teaching Minor: 3 courses as determined by School of Ed.
*Up to three supporting courses may be recommended.

## BIOLOGY

Senior High Teaching Major: 11 courses required: Bio. 153, 154 , $253,275,340,380$ (taken for Ed. credit as professional elective) and a choice of one from each group: Group A: Bio. 331, 346, Chem. 404* ; Group B: Bio. 424, 475, Anthro. 242*; Chem. 115, 331, 332, 333, 334; Math 131. (recommended supporting: Math 151; Physics 101, 102; ES 131, 132, 222; Chem. 142. Additional courses: select one from Bio. 234, 372, 425, or 321-426 (combination). One of these courses should be elected as part of the fifth-year work if not taken as part of major program.

- Not taken for biology credit but satisfies group requirement. Elect an approved biology course in its place.
Junior High Teaching Major: 6-7 courses required: Bio. 151, 152 and five courses approved by the department. Required supporting: Chem. 115, 142; Math 133. (Recommended: Physics 101, 102 or ES 131, 132.) Teaching Minor: 5 courses required: 3-4 Bio. courses and ES 131.

Elementary Teaching Major: 6 courses required: Bio. 151, 152; Chem. 115, 142 plus electives. Teeching Minor: 3 courses as determined by School of Ed.

## BUSINESS EDUCATION

Senior High Teaching Major: 12 courses required: Econ. 150; BA $241,281,190$ or $495,340,387$ or 488,441 or 442,443 and $1 / 2$
course in Advanced Typing; elect one course from BA 350, 364 or 370; elect one area of emphasis: Accounting: BA 381 plus one upper division accounting course; or Economics: Econ. 351 plus one upper division Econ. course; or Shorthand: one year advanced shorthand. (Strongly recommended: the following courses not taken during the four-year program should be included in the fifth-year: BA $350,364,370,387$ and 488.)*
*Typing and Shorthand are not offered on campus; these courses may be taken to meet degree requirements at Fort Steilacoom Community College for transfer credit anytime during the four-year program.

## CHEMISTRY

Senior High Teaching Major: $113 / 4$ courses required: Chem. 115, 142, $321,331,332,333,334,341,342$, and 343 ; Physics 101, 102 or 253; Math 151, 152.

Junior High Teaching Major: Same as for senior level above. Teaching Minor: $51 ⁄ 2$ courses required: Chem. 115, 142, 321, 331, $332,333,334$; Math 133 or equivalent.

Elementary Teaching Major: 6 courses required: 4 approved Chem. courses and 2 courses as determined by School of Ed. Teaching Minor: 3 courses as determined by School of Ed.

## COMMUNICATION ARTS

Senior High Teaching Major: 11 courses required: CA 123, 227, or 250, 241 and 404; 3 to 5 courses in consultation with major adviser; supporting courses: one of the following: 4-5 courses in English approved by major adviser; 4-5 courses in modern or classical language.
Junior High Teaching Major : 6-7 courses required: CA 123, 227 or 250, and 241; plus two additional courses in CA; additional 2-3 courses as determined by School of Ed. Teaching Minor: 4-5 courses in CA 124 and 241 , plus $2-3$ electives.

Elementary Teaching Major: 6 courses required: CA 123 and 402; 2 courses in CA; 2 courses in English. Teaching Minor: 3 courses as determined by School of Ed. and department.

## EARTH SCIENCES

Senior High Teaching Major : (General Science) 11 courses required: Bio. 151,152; Chem. 115, 142; Physics 101,102; ES 131,132; Math 133,151 plus electives.
Senior High Teaching Major: (Earth Sciences) 11 courses required: ES 131, 132, 324, 360 or 365, 491, 492; Math 151; Chem. 151, 142; Physics 101, 102. (Suggested supporting: Bio. 151, 152 and additional courses in Chem. and Physics.)

Junior High Teaching Major: (General Science) 6-7 cour ses required: Bio. 151 and 152 or 111; Chem. 115, 142; Physics 101, 102; Math 133; ES 131. Teaching Minor: $4-5$ courses. (Courses selected and total courses subject to approval of science departments and will vary depending upon high school background.

Junior High Teaching Major: (Earth Sciences) 7 courses required: ES 131, 132, 324, 360 or 365 ; Chem. 115, 142. (Suggested supporting: Math 151; Bio. 151, 152.) Teaching Minor: 4-5 courses in earth and physical sciences.

Elementary Teaching Major: (General Science) 6 courses required: (Individual programs planned by science department in consultation with School of Ed.) Teaching Minor: 3 courses required: As determined by School of Ed.

Elementary School Teaching Major: (Earth Sciences) 6 courses required: (Prerequisite: Trigonometry and high school Biology.) ES 131, 132, 324, 360 and 365; Chem. 115, 142. Teaching Minor: 3 courses in earth and physical sciences.

## ECONOMICS

Senior High Teaching Major: 11 courses required: Econ. 150, 351 352,$486 ; 3$ courses from the following: Econ. 321, 331, 361, 362 , 434, 481; History 255; plus 3 courses distributed over the areas of Soc., Pol. Sci., or Anthro. (Recommended: Ed. 448 to meet Prof. Ed. requirement.)

Junior High Teaching Major: 7 courses required: Econ. 150, 434, 486; 1 course from: Econ. $321,331,351,352,361,432,481$; History 255; plus two courses distributed over areas of Soc., Pol. Sci. Teaching Minor: 4 courses required: Econ. 150 plus 3 upper division Econ. courses. (Recommended: Ed. 448 to meet Prof. Ed. requirement.)

Elementary School Teaching Major: 6 courses required: Econ. 150, 434, 486; one course from: Econ. 321, 331, 351, 352, 361, 362, 432; History 225; one course from the areas of Soc. or Pol. Sci. Teaching Minor: 3 courses required: Econ. 150 and two upper division Econ. courses. (Recommended: Ed. 445 to meet Prof. Ed. requirement.)

## ENGLISH

Senior High Teaching Major: 11 courses required: English 241, 251, 252 and 383; electives to total eight courses in addition to English 101; at least 4 must be upper division. Distribution Requirement: 1 course from 382, 400 or $403 ; 318$ or proficiency as determined by the English Department. All majors must present two years of one foreign language at the college level or show equivalent proficiency. (Recommended: Ed. 444 to meet Prof. Ed. requirement. Recommended: CA 404.)

Junior High Teaching Major: 8 courses required: 8 English courses as listed under Senior High Teaching Major above, including distribution requirement and two years of foreign language or equivalent proficiency. (Recommended: Ed. 444 to meet Prof. Ed. requirement. Recommended: CA 404.)

Elementary School Teaching Concentration: 6 courses required: 4 English courses as listed under Senior High Teaching Major above, and two additional courses as determined by School of Ed. Teaching Minor: 3 courses required: As determined by School of Ed.

## FRENCH

Senior High Teaching Major: 11 courses required: French 201, 202, 321, 351, 352, 445 and three additional courses; 445 may count in either Ed. or French, not in both. Supporting Courses: 3 courses in CA, English or another foreign language.

Junior High Teaching Major: 7 courses required: as listed for senior high preparation; supporting courses chosen in consultation with major adviser. Teaching Minor: 4-5 approved French courses.

Elementary School Teaching Major: 6 courses required:5 approved French courses and one additional course selected in consultation with department and School of Ed. Teaching Minor: 3 courses required: As determined by department and School of Ed.

## GERMAN

Senior High Teaching Major: 11 courses required: German 201, 202, 321,351,352, 445 and three additional courses; 445 may count in either Ed. or German, not in both. Supporting Courses: 3 courses in CA, English or another foreign language.

Junior High Teaching Major: 7 courses required: as listed for senior high preparation; supporting courses chosen in consultation with major adviser. Teaching Minor: 4-5 approved courses in German.

Elementary School Teaching Major: 6 courses required: 5 approved German courses and one additional course selected in consultation with department and School of Ed. Teaching Minor: 3 courses required: As determined by department and School of Ed.

## HISTORY

Senior High Teaching Major: 11 courses required: History 107, 108, 251, 252 and 253,255 plus 3 courses in history including Senior Seminar; Supporting Courses: 3 courses selected from Econ., Geo. Pol. Sci., Psych. and Soc. In addition: A major should meet the foreign language requirement under either Option I or Option II as required by the College of Arts and Sciences. Prior to the Thanksgiving recess of the junior year, a history major will take an examination in English proficiency. Arrangements for taking the examination should be made at the office of the Director of Testing. In either the first or second semester of the senior year, a history major will enroll in one of the following three seminars: 494, 495 496. In September of the senior year, a history major will take an oral examination, based on the student's work in the field of history.

## LANGUAGE ARTS

Junior High Teaching Major: 8 courses required: English 318; one of English 403 or Linguistics 400; one upper-division literature course (in addition to course taken to meet general education requirement) CA 241, or 327 or 336 and 404; Ed. 444 and 3 courses from areas of English, Journalism, CA or Foreign Language beyond freshman level lat least 2 of these 3 courses must be in the same discipline, and 1 of the 3 must be upper-division). Teaching Minor: 4 courses required: selected from offerings in English, Journalism, CA or Foreign Language beyond freshman level; English 318 is required. (Recommended: Ed. 444 to meet Prof. Ed. requirement.)

Elementary Teaching Major: 6 courses required: English 318, one of Einglish 403 or Linguistics 400, English 323, CA 402 and one of CA 241 or 327 or 336; 2 courses selected from one of the following areas: English. CA. or Foreign Language beyond freshman level (1 course must be upper division). Teaching Minor: 3 courses required: Selected from offerings in English, Journalism, CA or Foreign Lariguage beyond freshman level; English 318 is required.

## MATHEMATICS

Senior High Teaching Major: 11 courses required (in addition to Math 446): Prerequisite: Math 133 or equivalent. Required: Math $151,152,231,433,446 ; 321$ or 434 or 455 ; one additiona upper division course; 2 courses in Chem. or Physics and 2 additional science courses.

Junior High Teaching Major: 6 courses required: Prerequisite: Math 133 or equivalent. Required: Math 151, 152, 231, 433, 446. Teaching Minor: 4 courses required (in addition to Math 446): Prerequisite: Math 133 or equivalent. Required: Math 151, 152; 127 or $231 ; 446,433$ or 321 .

Elementary Teaching Major: Prerequisite: 133 or equivalent; Math 323, 324 or 321 ; 4 additional courses. Required: 151, 152; 127 or 321 or 433; plus math electives. Teaching Minor: 323, 324 or 321 ; 2 additional courses determined in consultation with department and School of Ed.

## MUSIC

Senior High Teaching Major: *Emphasis on Choral Music: 141/2 courses required (Prerequisite: Music 123 or equivalent): Music 50, 124, 211, 212, 223, 224, 323, 325, 339**, 340**, 442, 445**, $447^{* *}$, two courses private voice lessons, $1 / 2$ course private piano lessons and 2 courses of Lit. and Perform.; 1 course musical electives.

Senior High Teaching Major: *Emphasis on Sacred Choral Music: 14 $1 / 2$ courses required (Prerequisite: Music 123 or equivalent): Music $50,124,211,212,223,224,323,339^{* *}, 340^{* *}, 367,368,445^{* *}$, 447**; 2 courses of private instruction in major perform. medium (voice or piano and/or organ), $1 / 2$ course in minor perform. medium (voice or piano and/or organ); 2 courses of Lit.and Perform.
Senior High Teaching Major: ${ }^{*}$ Emphasis on Instrumental Music: 141/2 courses required (Prerequisite: Music 123 or equivalent): Music $50,124,141,142,211,212,223,224,243,244,245,246,247$. $323,325,326,339^{* *}, 445^{* *}, 447^{* *}$; 2 courses private instruction earned in student's major instrument plus $1 / 2$ course piano; 2 courses of Lit. and Perform.
Junior High Teaching Major: 7 courses required (Prerequisite: Music 123 or equivalent): Music $50,124,211,212,339^{* *}, 340^{* *}, 445^{* *}$; $1 / 2$ course private piano, $1 / 2$ course secondary instrument or voice, 1 course of Lit. and Perform. and $1 / 2$ course music electives. Teaching Minor: 5 courses required: Music 120, 339, 341 plus $1 / 2$ course private piano, $1 / 2$ course private instruction in voice or secondary instrument; 1 course of Lit. and Perform. and $1 / 2$ course electives in music.

Elementary Teaching Major: 6 courses required: Music 120, 339, 341 plus $1 / 2$ course private piano and $1 / 2$ course private voice; 1 course music ensemble and $11 / 2$ courses of electives in music. Teaching Minor: 3 courses required: As determined by department and School of Ed.
*Students desiring certification in K-12 must student
teach on both elementary and secondary levels.
**Applies toward Prof. Ed. requirements.

## PHYSICAL EDUCATION

Senior High Teaching Major: 11 courses required: PE 277: 2 professional activities courses; 481, 482, and 1 of 322 or $328 ; 31 / 2$ courses elected from PE courses numbered 300-400; Bio. 161, 162 ; participation in at least one intercollegiate or extramural sport; 1 activity elective ( $1 / 2$ course) in Aquatics. (Students desiring K-12 certification must complete PE 322 and student teach on both elementary and secondary levels.)

Junior High Teaching Major: 7 courses required: 6 courses as listed
for senior high major plus one elective from PE courses numbered 300-400. Teaching Minor: 4 courses required: PE 277, 286, 284 or 388 , and 481 or 482.

Elementary Teaching Major: 6 courses required: PE 277, 286, 284 or 288, 322 and 2 courses from PE courses numbered $300 \cdot 400$.
Teaching Minor: Require: PE 277, 286, 284 or 288 and 322.
Special Secondary Programs:Athletic Coaching Minor: 3 courses required: PE 277, 481 and 482; and $31 / 2$ courses from the following: PE 370, $371,372,373,374$, and 361 ; and participation in at least one intercollegiate or extramural sport. Health Minor: Required: PE 295, 324, 326; Bio. 161 and 162.

## PHYSICS

Senior High Teaching Major: 11 courses required: Physics 101, 102, $211,253,354,272,321,322$ and 355 ; 1 Chem. course; Math 151, 152; (additional suggested courses: Physics 331, 336).

Junior High Teaching Major: 6½ courses required: Physics 101, 102, 211, 253, 254, 272, 321 and 322.

## POLITICAL SCIENCE

Senior High Teaching Major: 11 courses required: Pol. Sci. 101, 251, 331 plus 4 electives; (suggested supporting: Econ. 150; ES 101; History 251, 252, 253, 255; Psych. 101; Soc. 111). (Recommended: Ed. 448 to meet Prof. Ed. requirement.)

## SCIENCE (GENERAL)

See Earth Sciences.

## SOCIAL SCIENCE

Senior High Teaching Major: 11 courses required: 1 course from History 251, 252, 253; History 255; 1 course from each of the following areas: Anthro., Econ., Geo., Pol. Sci., Psych. and Soc.; 3 upper division courses from two of the areas of Econ., Pol. Sci., and Soc. (Recommended: Ed. 448 to meet Prof. Ed requirement.)

Junior High Teaching Major: 7 courses required: 1 course from History 251, 252, 253; History 255; 1 course from three of the following areas: Anthro., Econ., Geo., Pol. Sci., Psych., and Soc.; 2 upper division courses from two of the areas of Econ., Pol. Sci., and Soc. Teaching Minor: 4 courses required: 1 from History 251, 252, 253; History 255; and 2 courses selected from Econ., Pol. Sci., and Soc. (Recommended: Ed. 448 to meet Prof. Ed. requirement.)

Elementary Teaching Major: 6 courses required: 1 course from History $251,252,254$, History 255; and 4 courses from three of the following areas: Anthro., Econ., Pol. Sci., Psych., and Soc. Teaching Minor: 3 courses: As determined by School of Ed. (Recommended: Ed. 445 to meet Prof. Ed. requirement.)

## SOCIOLOGY

Senior High Teaching Major: 11 courses required: Soc. 111, 423, 494, 4 Soc. Electives; 4 courses distributed over three areas of other social sciences. (Recommended: Ed. 448 to meet Prof. Ed. requirement.)

## SPANISH

Senior High Teaching Major: 11 courses required: Span. 201, 202, 321, 351, 352, 445 and 3 additional courses. ( 445 may count in Ed. or Foreign Languages, not in both); suggested supporting: 3 courses

Junior High Teaching Major: 7 courses as listed for senior high preparation; supporting courses chosen in consultation with major adviser. Teaching Minor: 4-5 approved Span. courses.

Elementary Teaching Major: 6 courses required: 5 approved Span. courses and 1 additional selected in consultation with department and School of Ed.

## EDUCATION COURSES

201 LEARNER AND SOCIETY: GROWTH AND DEVELOPMENT
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. Prerequisite: Psych. 101 or Soc. 111.

321 HUMAN DEVELOPMENT
Emotional, social, intellectual and physiological development from infancy through adolescence. Two-hour public school observation required weekly, individually assigned; students responsible for their own transportation. Prerequisite: Psych. 101 or Soc. 111.

322 GENERAL METHODS - PRIMARY
Process and content of guiding and facilitating learning in grades K-3 with observation and participation in public schools. Prerequisite: 201 or 321.

323 GENERAL METHODS - UPPER ELEMENTARY
Process and content of teaching grades 4-6 with observation and participation in public schools. Prerequisite: 201 or 321.

325 READING IN THE ELEMENTARY SCHOOL
Teaching reading in elementary grades, including newer approaches; materials, methods, techniques, procedures and some diagnosis of reading difficulties. Prerequisite: 301 . I II S

326 MATHEMATICS IN THE ELEMENTARY SCHOOL (1⁄2-1) Basic mathematical skills and abilities needed by the elementary school teacher; recent developments and materials. Prerequisite: Math 323 or consent. I II S

401 WORKSHOPS $(1 / 4-1)$
Workshops in special fields for varying periods of time. (G)
408 LANGUAGE ARTS IN THE ELEMENTARY SCHOOL (1⁄2 $)$ 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 and language study, vocabulary development and lexicography.

410 SCIENCE IN THE ELEMENTARY SCHOOL $(1 / 2)$ The objectives, materials and methods of teaching science.

412 SOCIAL STUDIES IN THE ELEMENTARY SCHOOL (1⁄2) Objectives, materials and methods of teaching the social studies; open to experienced or student teachers only.

PROBLEMS OF READING IN THE SECONDARY SCHOOL $(1 / 2)$ Teaching secondary reading; attention to developmental reading problems; materials, methods, techniques, procedures and some observation and diagnosis of reading difficulties. Prerequisite: 201 ; corequisite : 420, 434.

GENERAL METHODS - SECONDARY
Curriculum, materials and methods of secondary teaching; observation and discussion. Prerequisite: 201 or 321; corequisite: 420,434.

Teaching in the public schools under the direction and supervision of classroom and university teachers. Prerequisite: 201 or 321,322 and 325.

432 STUDENT TEACHING - UPPER ELEMENTARY ( $2 ½$ ) Same as 430 except 323 for 322.

434 STUDENT TEACHING - SECONDARY (2)
Same as 420 except Prerequisite: 201 or 321 , Corequisite: 420 and 423.

435 PROFESSIONALSEMINAR (1 $1 / 2$ )
An opportunity for students to share experiences with an exchange of ideas on pupil behavior and curriculum practices; to project ways and means of improving teaching performance. (Taken concurrently with 430 or 432 . Students enrolled in 430 participate in a group process experience for 1 hour per week during the seminar.)

440-448 SPECIFIC METHODS IN TEACHING
SECONDARY SCHOOL SUBJECTS
Curriculum, methods and materials of instruction in various subjects; may be taken for graduate credit.

440 ART IN THE SECONDARY SCHOOL $(1 / 4)$ See Art 440.

CHEMISTRY IN THE SECONDARY SCHOOL $(1 / 2)$
ENG LISH IN THE SECONDARY SCHOOL
Development of teaching aids and methods; demonstrations of method and strategy by master teachers.

445 METHODS IN TEACHING FOREIGN LANGUAGES (1/2)
Theory and techniques of foreign language teaching; special problems in the student's major language; emphasis on audio-lingual techniques. (G)

MATHEMATICS IN THE SECONDARY SCHOOL (1⁄2) SCIENCE IN THE SECONDARY SCHOOL (1⁄2) SOCIAL STUDIES IN THE SECONDARY SCHOOL $(1 / 2)$

ADMINISTRATION OF THE SCHOOL LIBRARY $(1 / 2)$
Library organization and administration in the elementary school. (G)

BASIC REFERENCE MATERIALS $(1 / 2)$
Those services of a school librarian related to the
presentation of all materials which form the sources of reference. (G)

453 PROCESSING SCHOOL LIBRARY MATERIALS (1/2)
Classification, cataloging and technical processing of materials. (G)

454 SELECTION OF LEARNING RESOURCE MATERIALS $(1 / 2)$ Criteria, professional literature and techniques of evaluation of library materials (print and non-print); the librarian's responsibitity to faculty, students and the general public. (G)

455 INSTRUCTIONAL MATERIALS ( $1 / 2$ )
Audio and visual materials and aids, their use, organization and administration. (G)

456 STORYTELLING (1 $1 / 2$ )
An investigation of the values of storytelling; background readings on the various types of stories and their origins precedes practical work in selection, classification and telling of stories suitable for elementary; some stories for adolescents.

457 PREPARATION AND UTILIZATION OF
INSTRUCTIONAL MATERIALS ( $3 / 4)$
The production and use of a variety of instructional materials, flat pictures, charts, maps and the 35 mm camera; participants produce items useful in instruction. \$10.00 lab fee is charged. (G)

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. (G)
473 PARENT - TEACHER CONFERENCE ( $1 / 2$ )
Principles and techniques of parent-teacher conferences; introduction of such programs to school and community; evaluation of various grading systems. Prerequisite or corequisite: student teaching or teaching experience. (G)

481 STATISTICAL METHODS
See Psychology 481. (G)
482 KINDERGARTEN (1/2)
The kindergarten child and his adjustment problems; activities and procedures for his development. (G)

483 PRIMARY READING ( $1 / 2$ )
Materials and methods of the primary reading program and its relation to other activities. Prerequisite: teaching experience. (G)

485 THE GIFTED CHILD (1/2)
The gifted child, his characteristics and problems and procedures designed to further development. (G)

READING CENTER WORKSHOP ( $11 / 2$ )
Clinical study of reading problems and suggested corrective measures; to be taken concurrently with 489. Prerequisite: teaching experience. S (G)

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)

496 LABORATORY WOR KSHOP
Practical course using elementary age children in a classroom situation working out a specific problem; 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 (1/4-1)
Individual study and research on educational problems or additional laboratory experience in public school classrooms. Prerequisite: consent of the Dean. (G)

501 WORKSHOPS ( $1 / 2-1$ )
Graduate workshops in special fields for varying lengths of time.
545 METHODS AND TECHNIQUES OF RESEARCH (1 12 )
Seminar in social science research methods and techniques; illustrations primarily from education and psychology; secondarily from fields such as sociology, history and political science; the designing of a research project in the student's area of interest. Required for M.A. and should be taken early in the degree program. Prerequisite: Admittance to the graduate program.

550 SCHOOL FINANCE (1 12 )
Local, state and federal contributors to school finance, its philosophy and development; the development and administration of a school budget.

552 PUBLIC SCHOOL ADMINISTRATION ( $3 / 4$ )
Administration and supervision of school personnel, plant and program; the structure and organization of the school system. Prerequisite: teaching experience or consent of the Dean.
554 HIGH SCHOOL ORGANIZATION AND ADMINISTRATION (1/2)
Planning and organizing the high school curriculum, scheduling, extra-curricular activities, teachers' meetings, public accounting and control, finance and reports. Prerequisite: 552.
555 ADMINISTRATION AND SUPERVISION WORKSHOP
Projects discussed 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 and/or supervision.

558 ADMINISTRATIVE INTERNSHIP ( $112-1$ )
Internship in school administration planned with the School of Education in cooperation with selected school administrators. Prerequisite: Course work in school administration and admission to graduate program.

571 HISTORY AND PHILOSOPHY OF HIGHER EDUCATION $H$ istorical perspective and current status; development of functions and structures; issues in curriculum; philosophy of administration; case studies.

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.

DIAGNOSIS AND REME DIATION IN READING (½) Causative factors relating to reading difficulties; some opportunity to apply remediation techniques; open to those with teaching experience.

## 580 CURRICULUM DEVELOPMENT (1/2)

Types of curriculum organizations; programs and techniques of curriculum development. I

583 READINGS IN EDUCATIONAL ISSUES AND PROBLEMS ( $1 / 2-1$ )
Individual reading, investigation or research for credit; guidance provided by the faculty member best qualified in the area selected. Credit varies with proiect.
585 COMPARATIVE EDUCATION ( $1 / 2$ )
Comparison and investigation of certain material and cultural systems of education throughout the world.

587 HISTORY OF EDUCATION (1/2)
Great educators, educational theories and educational systems from antiquity to the present.

589 PHILOSOPHY OF EDUCATION ( $3 / 4$ )
Philosophical and theoretical foundations of education.
590 GRADUATE SEMINAR (0)
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.

596 RESEARCH STUDIES IN EDUCATION (1⁄4)
For Master of Arts candidates who elect to write two research papers instead of a thesis. (One paper may be in the candidate's minor field under the supervision of the minor adviser.) The candidate will be required to review his research papers before his Graduate Committee (See Graduate Catalog).

597 RESEARCH STUDIES IN EDUCATION (½)
(See Education 596)
599 THESIS (3/4-1)
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 his Graduate Committee. The candidate will be expected to defend his thesis in a final oral examination conducted by his Committee.

## EDUCATIONAL PSYCHOLOGY

461 GROUP PROCESS AND THE INDIVIDUAL(1 $1 / 2$ )
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)

463 GUIDANCE IN THE ELEMENTARY SCHOOL (11/2)
Major orientations to guidance and how they are translated into operational programs in the school setting.

465 GUIDANCE IN THE SECONDARY SCHOOL (1/2)
Major orientations to guidance and how they translate into operational programs in the school setting. (G)

466 INTRODUCTION TO STUDENT PERSONNEL SERVICES (1/2)
Student personnel services offered by colleges and universities; familiarization with literature in the field; exposure to local service agencies and student government. (G)

468 EDUCATIONAL PSYCHOLOGY (1)
Principles and research in human learning and their implications for curriculum and instruction. (G)

469 VOCATIONAL AND EDUCATIONAL GUIDANCE (1⁄2 $)$
A study of vocational theories and occupational choices for M.A. students in Counseling and Guidance. (G)

560A CONTINUING PRACTICUM
A practical experience in the techniques of counseling; enrollment limited to students beginning the Master's Program in Counseling and Guidance, and is a prerequisite to admission to the program; practicum makes use of counseling sessions with clients utilizing verbal and nonverbal attending behavior.

CONTINUING PRACTICUM
A practicum experience conducted in a small group setting to help the students integrate cognitive and affective learnings from other courses and counseling experiences into an individualized counseling model; students enrolled in the M.A. program in Counseling and Guidance, including elementary, secondary and higher education, are required to register for a total of three semesters; opportunities for developing styles of counseling and selected experiences from family counseling, play therapy and psychodrama.

561 COUNSELING THEORY
Goals, relationships, and theories are pursued by independent and small group work.

563 PRACTICUM IN GROUP PROCESS AND LEADERSHIP (1 1 2 ) 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. Prerequisite: 461.

565 SEMINAR: NON-TEST APPRAISAL (11/2)
Assessment of personal characteristics and behavioral patterns to better understand the individual; utilization of non-test data (sociometric scales, case studies, autobiographies, interviews, etc.).

570 PRACTICUM AND FIELD WORK IN COUNSELING AND GUIDANCE :
A culminating practicum of field experience in public schools utilizing theory, skills and techniques previously learned; a variety of work experiences with individual students and where possible, with several groups of students; practicum may be extended through two semesters.

572 PRACTICUM IN STUDENT PERSONNEL WORK IN HIGHER EDUCATION
A culminating practicum of supervised collegiate experience in residence halls, administrative offices, service agencies, research on projects associated with practicum.

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.

575 MENTAL HEALTH (112)
Basic mental health principles as related to interpersonal relationships.

578 BEHAVIOR AND LEARNING PROBLEMS OF STUDENTS (1/2)
Psychosexual causes of emotional and behavioral problems, the child's mistaken goals as they affect behavior and learning. The course will provide opportunity for practice in active listening and reflective communication.
110 ENGLISH
BACHELOR OF ARTS: Minimum of eight courses beyond 101; 241, 251, 252, 383 plus four electives, three of which must be upper-division. All majors, including those enrolled in the School of Education, must present two years of one foreign language at the college level or show equivalent proficiency.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

## 101 COLLEGE ENGLISH

Develops a student's powers to read, think and write critically and well. I II

## 217 SHORT STORY

Themes and techniques in short fiction. II
230 INTRODUCTION TO CONTEMPORARY LITERATURE
Selected contemporary works - chiefly American, English or Continental - since World War II. I II

231 MASTERPIECES OF EUROPEAN LITERATURE
Representative works of the literature of Western Europe, especially classical, medieval and Renaissance. I

241 INTRODUCTION TO AMERICAN LITERATURE Major authors from Edward Taylor to Stephen Crane; required of majors.

251 INTRODUCTION TO ENGLISH LITERATURE:
BEGINNINGS TO 1750
Emphasis on the continuity and variety of English literature
from Beowulf through neoclassicism; required of majors. I
252 INTRODUCTION TO ENGLISH LITERATURE: AFTER 1750
English literature, especially poetry, from the emergence of romanticism to the twentieth century; required of majors. II

318 ADVANCED COMPOSITION
A study of rhetorical principles. (Required of English majors enrolled in the School of Education unless exempted by the English Department.) II

323 CHILDREN'S LITERATURE
Children's literature as a rich collection in itself and as a guide to book selection in the public schools. II

349 MODERN POETRY
Poetry, especially American and British, since World War I. II
351 MODERN DRAMA
Selected plays representing the development of drama from realism to the theatre of the absurd.

358 ENGLISH LITERATURE: THE NOVEL
Selected novels which represent developments from the eighteenth century to the present.
382 ENGLISH LITERATURE: CHAUCER
Especially The Canterbury Tales; includes development of the English language. Recommended as background: 251. I

383 ENGLISH LITERATURE: SHAKESPEARE
Ten to twelve representative plays; required of majors. Recommended as background: 251.1

388 ENGLISH LITERATURE: MILTON AND HIS AGE
Milton, Donne, and their contemporaries. Recommended as background: 251. II

389 ENGLISH LITERATURE: SATIRE AND SENSIBILITY Swift, Pope, Johnson and their contemporaries. Recommended as background: 252. II a/y

390 ENGLISH LITERATURE: THE ROMANTICS
Representative works from the Romantic period. Recommended as background: 252. I

391 ENGLISH LITERATURE: THE VICTORIANS
Includes poetry of Tennyson, Browning, Arnold and the Pre-Raphaelites; prose of Macaulay, Carlyle, Newman, Mill and Ruskin; and several representative novels. Recommended as background: 252. II

392 ENGLISH LITERATURE : TWENTIETH CENTURY
Selected fiction of Joyce, Lawrence, Forster, Greene and Amis; works of major twentieth-century British playwrights and poets.

400 LINGUISTICS
See foreign languages.
403 MODERN ENGLISH GRAMMAR
Modern English grammar utilizing the approaches of the
three major theories: traditional, structural and transformational. I

441 THE AMERICAN RENAISSANCE, 1830-1870
Transcendentalists, Emerson, Thoreau, Whitman, Dickinson; Poe, Hawthorne, Melville. Recommended as background: 241. II

442 AMERICAN LITERATURE: REALISM AND NATURALISM, 1870-1920
Howells, Twain, James; Crane, Norris, London, Dreiser; Robinson, Frost. Recommended as background: 241. I

443 AMERICAN LITERATURE SINCE 1920
Emphasis on the novel up to 1950. II
450 SEMINAR IN AMERICAN LITERATURE
For advanced English majors. A review of themes and forms in American literature and preparation of an extensive critical paper on a major work. Includes independent reading and weekly seminars. Prerequisite: consent.

491, 492 INDEPENDENT READING AND RESEARCH $(1 / 2-1)$ For senior majors who plan graduate work in English; an intensive, planned course of readings. I II

597 GRADUATE RESEARCH $(1 / 22-1)$
I II

## FOREIGN LANGUAGES

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. Placement of students with previous experience is determined by a test which is given during orientation days at the beginning of the school year. Major programs are available in Classics, German, French and Spanish. For further information in Classics, consult the SPECIAL ACADEMIC PROGRAMS section of this catalog.

BACHELOR OF ARTS: Minimum of eight courses beyond 101-102, including 201, 202, 321, 351, 352 plus upper-division electives.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

## LINGUISTICS

400 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. II

## FRENCH

101, 102 ELEMENTARY FRENCH
Essentials of pronunciation, intonation and structure; basic skills in listening, speaking, reading and writing. Laboratory attendance required. I II

201, 202 INTERMEDIATE FRENCH
A continuation of elementary French; reading selections which reflect the French cultural heritage as well as contemporary materials. Laboratory attendance required. I II

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: French 202. I II

351, 352 COMPOSITION AND CONVERSATION
Advanced grammar, stylistics, composition, conversation and phonetics; written compositions on culture and civilization; conversations on current topics; conducted in French. Prerequisite: 202. I II

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; conducted in French. Prerequisite: 202 . 1 II a/y

431, 432 TWENTIETH CENTURY FRENCH LITERATURE
Major twentieth century writers; emphasis on the period since World War II; conducted in French. Prerequisite: 202. II aly

442 HISTORY OF ROMANCE LANGUAGES
The historical development of Romance Languages with 111 reference to current languages; same as Spanish 442. II a/y
445 METHODOLOGYOF TEACHING FOREIGN LANGUAGES (1/2)
Theory and techniques of foreign language teaching; special problems in the student's major language; emphasis on audio-lingual techniques.

491, 492 INDEPENDENT STUDY ( $1 / 4-1$ )
597.598 GRADUATE RESEARCH ( $1 / 2-1$ )

GERMAN

## 101. 102 ELEMENTARY GERMAN

Essentials of pronunciation, intonation and structure; basic skills in listening, spesking, reading and writing. Laboratory attendance required. I II

201, 202 INTERMEDIATE GERMAN
A continuation of elementary German; reading selections which reflect the German cultural heritage as well as contemporary materials. Laboratory attendance required. I II

321 CIVILIZATION AND CULTURE
Historical and artistic elements which have shaped German culture from the beginnings to the present; emphasis on forces which have influenced American culture and life; conducted in German. Prerequisite: 202. I

351, 352 COMPOSITION AND CONVERSATION
Refinement of basic language skills; emphasis on finer points
of structure, style and good taste; compositions and conversations on current topics; conducted in German. Prerequisite: 202. III

421, 422 MASTERPIECES OF GERMAN LITERATURE
Major literary works, in all the genres, from the early period to 1900; examination of those forces which produced literature; literature as works of art; conducted in German. Prerequisite: 202.1 If a/y

431, 432 TWENTIETH CENTURY GERMAN LITERATURE
Major contemporary literary works with emphasis on the last decade; all literary forms considered; conducted in German. Prerequisite: 202. I II a/y

442 HISTORY OF THE GERMAN LANG UAGE
Historical development of German with reference to contemporary language; conducted in German. Prerequisite: 202. II a/y

445 METHODOLOGY OF
TEACHING FOREIGN LANGUAGES $(1 / 2)$
Theory and techniques of foreign language teaching; special problems in the student's major language; emphasis on audio-lingual techniques.

491, 492 INDEPENDENT STUDY ( $1 / 4-1$ )
597,598 GRADUATE RESEARCH (1⁄2-1)

GREEK
Currently offered cooperatively with the University of Puget Sound on our campus.

101, 102 ELEMENTARY GREEK
Designed to enable the student to read Greek as soon as possible; choice of reading each term is determined by a particular theme. I II

201, 202 INTERMEDIATE GREEK
Selected koine readings from Hellenistic Greek literature with major emphasis on the New Testament. I II

421, 422 MASTERPIECES OF GREEK LITERATURE
Available through consultation with the department. Prerequisite: 101, 102. I II

491, 492 INDEPENDENT STUDY ( $1 / 4-1$ )

## JAPANESE

Currently offered cooperatively with the University of Puget Sound on their campus.

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101,102 ELEMENTARY JAPANESE
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Introduction to spoken Japanese; construction patterns, grammar and kana syllabaries. I II

201, 202 INTERMEDIATE JAPANESE
Introduction to character writing; reading and translation of Japanese. I II

## LATIN

## 101, 102 EL.EMENTARY LATIN

Designed to enable the student to read Latin as soon as possible; basic reading text: the Vulgate of St. Jerome; excursions into Roman history and mythology. I II

## 201, 202 INTERMEDIATE LATIN

Lyric and epic poetry, its translation and adaptation by English and American poets; the second semester includes the reading of an Italian author. I II

## 491, 492 INDEPENDENT STUDY (1⁄2-1

## NORWEGIAN

Currently offered cooperatively with the University of Puget Sound on our campus.

## 101, 102 ELEMENTARY NORWEGIAN

Essentials of pronunciation, intonation and structure; basic skills in listening, speaking, reading and writing. Laboratory attendance required. I II

201, 202 INTERMEDIATE NORWEGIAN
A continuation of elementary Norwegian; reading selections which reflect the Norwegian cultural heritage as well as contemporary materials. Laboratory attendance required. I II

321 CIVILIZATION AND CULTURE
Historic and artistic elements which have shaped Scandinavian culture from the beginnings to the present; emphasis on those forces which have influenced American life and culture. No prerequisites. I

## 491, 492 INDEPENDENT STUDY $\{1 / 4-1\}$

## RUSSIAN

Currently offered cooperatively with the University of Puget Sound on their campus.

101, 102 ELEMENTARY RUSSIAN
Essentials of Russian grammar and teaching of graded texts. I II

## 201, 202 INTERMEDIATE RUSSIAN

A continuation of elementary Russian; reading of suitable texts, review of grammar, composition. I II

## SPANISH

## 101, 102 ELEMENTARY SPANISH

Essentials of pronunciation, intonation and structure; basic skills in listening, speaking, reading and writing. Laboratory attendance required. I II

201, 202 INTERMEDIATE SPANISH
A continuation of elementary Spanish; reading selections which reflect the Spanish cultural heritage as well as contemporary materials. Laboratory attendance required. I II

321 CIVILIZATION AND CULTURE
Historic and artistic elements which have shaped Spanish
thought and behavior from the beginnings to the present;
emphasis on forces which have influenced American life and culture; conducted in Spanish. Prerequisite: 202.1

351,352 COMPOSITION AND CONVERSATION
Topics of current interest as a basis for improved oral and written expression; conducted in Spanish. Prerequisite: 202.1 II

## 421, 422 MASTERPIECES OF SPANISH LITERATURE

All genres of major literary works from the early period to 1900; forces which produced the literature; appreciating literature as a work of art; conducted in Spanish. Prerequisite: 202. I II a/y

## 431, 432 TWENTIETH CENTURY SPANISH LITERATURE

Major contemporary literary works; emphasis on the last decade; Spanish and Latin American authors considered; conducted in Spanish. Prerequisite: 202. I II a/y
442 HISTORY OF ROMANCE LANGUAGES
Historical development of Romance langugges with reference to current language; same as French 442. II a/y
445 METHODOLOGY OF TEACHING FOREIGN LANGUAGES (1/2)
Theory and techniques of foreign language teaching; special problems in the student's major language; emphasis on audio-lingual techniques.
491. 492 INDEPENDENT STUDY $(1 / 4-1)$

## GENERAL ENGINEERING

Descriptions of the pre-engineering programs and the Engineering Physics program are contained in the sections "Special Programs for Careers" and "Physics" respectively.

## 144 INTRODUCTION TO COMPUTER SCIENCE See Mathematics 144.

151 ENGINEERING GRAPHICS (1/3)
Descriptive geometry: auxiliary views, true size view, revolutions and developments, strikes and dips.

231 STATICS ( $1 / 2$ )
Fundamental engineering statics using vector algebra; conditions for equilibrium, resultant force systems, centroid and center of gravity, methods of virtual work, friction and kinematics of particles and rigid bodies. Prerequisite: Physics 253.

232 MECHANICS OF SOLIDS
Mechanics of deformable solid bodies; deformation, stress, constitutive equations for elastic materials, thermoelasticity, tension, flexure, torsion, stability of equilibrium. Prerequisite: 231.

344 SYSTEMS ANALYSIS AND SIMULATION See Mathematics 344.

346 NUMERICAL ANALYSIS
See Mathematics 346.

351 THERMODYNAMICS
Concepts and equations of classical, macroscopic thermodynamics; thermodynamic cycles, flow and non-fiow systems, properties and mathematical relations of pure substances, mixtures and solutions, phase transition and chemical reactions; an elementary treatment of statistical thermodynamics. Prerequisite: Physics 253, 254.

## NETWORK ANALYSIS

An analysis of electrical circuits containing active and passive elements for transients and steady state conditions; formulation of network equations, network theorems, impedance matching and fundamentals of network topology. Prerequisite: Physics 272, 331. II a/y

TRANSPORT PHENOMENA
The unifying concept of the transport of mass, heat and momentum; general aspects of fluid mechanics and transport coefficients. Prer quisite: 351 . II a/y

## HISTORY

During the sophomore year, a student intending to major in history (Bachelor of Arts or Bachelor of Arts in Education) should fill out an application which is available in the department office. If accepted, the student will be assigned to a member of the history faculty who will serve as his adviser. In addition:

A history major should meet the foreign language requirement under either Option I or Option II as required by the College of Arts and Sciences.

Prior to the Thanksgiving recess of the junior year, a history 113 major will take an examination in English proficiency. Arrangements for taking the examination should be made at the office of the Director of Testing.

In either the first or second semester of the senior year, a history major will enroll in one of the following three seminars: 494, 495, 496.

In September of the senior year, a history major will take an oral examination, based on the student's work in the field of history.

BACHELOR OF ARTS: Eight courses including 107. 108; two of 251,252 and 253 ; senior seminar; plus electives.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

107, 108 HISTORY OF CIVILIZATION
Analysis of institutions and ideas of selected civilizations: Mesopotamia, Egypt, the Hebrews, Greece, Rome, the $r$ ise of Christianity and Europe in the Middle Ages are dealt with in the first semester; Europe from the Renaissance to the present in the second semester; selected research and weriting. I II
251 COLONIAL AMERICAN HISTORY
American institutions from colonial times to the 1790's; the growth of the colonies and their relationship to the British imp rial system.
252 NINETEENTH CENTURY AMERICAN HISTORY
The early national period to the 1890's; the interplay between changing historical conditions and various groups in society, including minorities.

253 TWENTIETH CENTURY AMERICAN HISTORY
Trends and events in domestic and foreign affairs since 1900: affluence, urban growth and social contrasts.

## 255 PACIFIC NORTHWEST

An interpretive history within the context of the American West; social, economic and political developments which reflect regional and national characteristics.

321, 322 HISTORY OF THE ANCIENT WORLD
The ancient Mediterranean world with emphasis upon Greek and Roman civilizations: may be repeated for credit when subjects vary. Prerequisite: consent. I II

323 MEDIEVAL HISTORY
Europe from the disintegration of the Roman Empire to 1300; reading and research in medieval materials. Prerequisite: 107, 108 or consent.

324 RENAISSANCE
Europe in an age of transition -1300 to 1500 . Prerequisite: 107, 108 or consent.

325 THE REFORMATION
Political and religious crisis in the sixteenth century: Lutheranism, Zwinglianism, Anglicanism, Anabaptism, Calvinism, Roman Catholic reform; Weber thesis, the beginning of Baroque art. Prerequisite: 107, 108 or consent.

326 EUROPEAN HISTORY FROM 1648 to 1789
Developments during the early modern and scientific age; the Enlightenment; the OId Regime. Prerequisite: 107, 108 or consent.

327 THE FRENCH REVOLUTION AND NAPOLEON
Revolutionary Europe from 1789 to the Congress of Vienna. Prerequisite: 107,108 or consent.

328 NINETE ENTH CENTURY EUROPE
The expansion of European civilization from 1815 to 1914. Prerequisite: 107,108 or consent.

329 TWENTIETH CENTURY EUROPE
Events and trends since 1914. Prerequisite: 107, 108 or consent. I II

331, 332 ENGLAND
Political, social, economic, legal and cultural developments in the British Istes. Prerequisite. 107, 108 or consent. I II

333 RUSSIA
Russia from earliest times; the collapse of Czarism, the rise of communism, present world relations. Prerequisite: 107, 108 or consent.

336 COLONIAL LATIN AMERICA
The conquest, settlement and development of Latin America; Spanish and Portuguese political, economic and religious institutions. Prerequisite: Any two courses from 107, 108, 251, 252 or consent.

REPUBLICAN LATIN AMERICA
From independence to the present; emphasis upon Mexico, Argentina and Brazil. Prerequisite: 336 or consent.

340 FAR EASTERN HISTORY
Life and thought from ancient times; concentration on China, Japan and India. Prerequisite: consent.

356 HISTORY OF AMERICAN FOREIGN POLICY
The practice, function and structure of American foreign policy with particular emphasis on the twentieth century. Prerequisite : two courses from 251, 252, 253 or consent.

421 HISTORY OF IDEAS: EUROPEAN CIVILIZATION
Leading ideas in Western civilization since the disintegration of Rome. Prerequisite: consent.

451 AMERICAN CONSTITUTIONAL HISTORY
The constitution from colonial times. Prerequisite: consent.
461 HISTORY OF THE AMERICAN FRONTIER
Principal "frontiers" which characterized the westward movement, especially in the nineteenth century. Prerequisite: Any two courses from $251,252,253$ or consent.

HISTORY OF AMERICAN THOUGHT AND CULTURE
Dimensions of American social and intellectual history; ideas as they relate to historical periods and ethnic groups. Prerequisite: Any two courses from 251, 252, 253 or consent.

INDEPENDENT STUDY
SEMINAR: AMERICAN HISTORY
SEMINAR: EUROPEAN HISTORY
SEMINAR: HISTORY AND HISTORIANS
GRADUATE RESEARCH
599
THESIS

## MATHEMATICS

During the sophomore year, a student intending to major in mathematics should complete an application form available from the departmental secretary. If accepted, the student will be assigned to an adviser on the mathematics faculty. Students not qualifying for 151 upon entrance should register for 91 and/or 133 and then take both 152 and 231 in the first semester of the sophomore year.

BACHELOR OF ARTS: Minimum of seven courses numbered above 150 including 332, 433, 455 and either 434 or 456 . The 434 or 456 choice may be replaced by taking two of $321,341,344,346$, 351 and 460. Two courses in physics are strongly recommended. Students planning to do graduate work in mathematics should complete both 434 and 456.

BACHELOR OF SCIENCE: Ten courses including 332 and at least five upper division courses. Three of the upper division courses must come from 433, 434, 455 and 456. Required supporting: Two
courses in physics. Mathematical Physics 456 may be substituted for one course of upper division mathematics.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

## 091 INTERMEDIATE ALGEBRA (no credit)

A thorough review of first year high school algebra and continuation beyond quadratics. I

127 FINITE MATHEMATICS
Truth tables, modulo systems, elementary probability, Boolean Algebra, matrices, linear programming. Prerequisites: High school algebra and geometry. I II S

133 COLLEGE ALGEBRA AND TRIGONOMETRY
Sets, progressions, binomial theorem, complex numbers, determinants, radian measure, solution of acute and oblique triangles, inverse functions, graphing, identities. Prerequisite: 2 years of high school algebra or consent. I II

144 INTRODUCTION TO COMPUTER SCIENCE Computer science and a working knowledge of FORTRAN as applied to scientific problems; computer classification, organization, data structure, algorithms, flow charts and FORTRAN IV. Prerequisite: 127 or 133 or consent. I II

151 ANALYTIC GEOMETRY AND CALCULUS
Analytic geo metry, functions, limits, derivatives and integrals with applications. Prerequisite: Two years of high school algebra, trigonometry or 133 or equivalent. I II

152 ANALYTIC GEOMETRY AND CALCULUS
Integration, applications and techniques of integration, transcendental functions, polar coordinates, improper integrals, L'Hospital's Rule, infinite series. Prerequisite: 151 | ||

199 DIRECTED READING $(1 / 4-1 / 2)$
Supervised study of topics selected to meet the individual's needs or interests; primarily for students awarded advanced placement. Admission only by departmental invitation.

LINEAR ALGEBRA AND CALCULUS
Linear algebra, vectors, matrices and determinants; differential equations, solid analytic geometry; introduction to multivariable calculus. Prerequisite: 152 or consent of department chairman. I II

244 DATA STRUCTURES AND ASSEMBLY LANGUAGE PROGRAMMING $(1 / 2)$
Computer structure, COMPASS assembly language, instruction execution, addressing techniques, representation of data, macro definition, program segmentation and linkage Prerequisite: 144 or consent. I a/y

321
GEOMETRY
Foundations of geometry and basic theory in Euclidean, projective and non-Euclidean geometry. Presequisite: 231 or consent. I a/y

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 Ed. 326. Prerequisite: consent. I II S

324 GEOMETRY FOR THE ELEMENTARY SCHOOL TEACHER ( $1 / 2$ )
A review of elementary geometry from a mature point of view using modern vocabulary and notation; the importance of measurement, observation, intuition, and inductive reasoning as useful learning techniques. Intended for elementary teaching majors. Prerequisite: 323. II

MULTIDIMENSIONAL CALCULUS
Continuation of multivariable calculus concepts introduced in 231. Partial differentiation and differential equations, line integrals, Green's theorem, infinite series. Prerequisite: 231. II

341 MATHEMATICAL STATISTICS
Elementary probability theory, discrete and continuous distribution functions, introduction to sampling theory and hypothesis testing. Prerequisite: 152. II a/y

344 SYSTEMS ANALYSIS AND SIMULATION
Application of matrix algebra, probability theory, statistics and computer science to problems of science, industry and society; mathematical modeling, Monte Carlo techniques, error analysis, stochastic processes and computer simulation. Prerequisite: 144 and 152. 1 a/y

346 NUMERICAL ANALYSIS
Numerical theory and applications in the areas of solution of equations and linear systems, differentiation, integration, approximation, matrix theory and solution of differential equations. Prerequisite or corequisite: 231 and limited knowledge of computer programming or consent. II

APPLIED MATHEMATICS
Ordinary differential equations including series solutions, the Laplace transform, partial differential equations, orthogonal functions. Prerequisite: 332 . I

433, 434 MODERN ALGEBRA
Linear algebra, groups, rings, modules, fields, field extensions. Prerequisite: 231. 433 offered I each year; 434 offered II a/y.

MATHEMATICS IN THE SECONDARY SCHOOL ( $1 / 2$ )
Basic Mathematical concepts; principles of number, operation, relation and proof, postulational systems of Euclidean geometry and materials in secondary school teaching. Prerequisite: 231 or equivalent. I

455, 456 MATHEMATICAL ANALYSIS
Extended treatment of topics introduced in elementary calculus. Prerequisite: 332. 455 offered I each year; 456 offered II a/y.

460 ELEMENTARY TOPOLOGY
An introduction to point-set topology. Prerequisite: Consent. $11 \mathrm{a} / \mathrm{y}$.

SEMINAR (1⁄2-1)
Prerequisite: Consent of department chairman.
491, 492 INDEPENDENT STUDY $(1 / 6-1)$
Prerequisite: Consent of Depart ment chairman. I II
597. 598 GRADUATE RESEARCH $(1 / 3-1)$

Open to Master's degree candidates only. Prerequisite: Consent of department chairman. I II

## MUSIC

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 must fill out a declaration of intent during their first semester of enrollment in the program and renew the declaration each semester in attendance.

BACHELOR OF ARTS: Maximum of ten courses including 50, 123, 124, $211,212,223,224,323$ plus one course in Literature and Performance and two courses of private lessons including one-half course in pirivate piano.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

The Department of Music also offers the following degree programs:

1. Bacheior of Music in Piano Performance
2. Bachelor of Music in Organ Performance
3. Bachetor of Music in Vocal Performance
4. Bachelor of Music in Instrumental Performance
5. Bachelor of Music in Sacred Music
6. Bachelor of Music in Theory and Composition
7. Bachelor of Arts in Education Secondary - Choral Music
8. Bachelor of Arts in Education Secondary - Sacred Choral Music
9. Bachelor of Arts in Education Secondary - Instrumental Music
10. Bachelor of Arts in Education Elementary - Music Specialist
11. Master of́ Music in Piano Performance
12. Master of Music in Organ Performance
13. Master of Music in Vocal Performance
14. Master of Music in Instrumental Performance

15 Master of Music Education
16. Master of Music in Theory and Composition

Consult the Music Department Handbook, available in the Music Office, for complete details concerning required courses, recommended four-year programs by the semester, progress charts and other pertinent information.

## 50 STUDENT RECITAL (No Credit)

Weekly student recitals. Registration and attendance required of all music majors; music majors expected to perform in recital once each semester. I II

## 120 MUSIC SURVEY

The music literature of Western Civilization; form and meaning of musical masterpieces; designed to enhance the
enjoyment of music. Not open to majors. I II
123 THEORY
Fundamentals and notation of music through elementary part writing; application through keyboard, sightsinging and ear traıning. I

124 THEORY
Continued part writing, modulation and ear training; introductory work in analysis. II

141, 142 STRINGS ( $1 / 4,1 / 4$ )
Instrumental laboratory. I II a/y
211, 212 HISTORY OF MUSIC
Music from ancient civilizations to modern times.
Prerequisite: 124 or consent. I II
223, 224 THEORY
Compieted study in traditional harmony and ear training; introduction to counter-point arid composition; application of harmonic practices through analysis, writing, keyboard and ear training. 1 II

243, 244 WOODWINDS INSTRUMENTAL LABORATORY ( $1 / 4,1 / 4$ ) Methods and problems of teaching and playing woodwind instruments. I II a/y. 1972-73

245,246 BRASS INSTRUMENTAL LABORATORY ( $1 / 4,1 / 4$ ) Methods and probiems of teaching and playing brass instruments, aly $1973-74$

247 PERCUSSION LABORATORY ( $1 / 4$ )
Methods and problems of teaching and playing percussion instrumerits. I a/y 1972-73

323 CONTEMPORARY TECHNIQUES,
ANALYSIS AND LITERATURE
Compositional tecinniques, early developments and current trends. I

324 CONTRAPUNTAL WRITING, FORM,
ANALYSIS AND LITERATURE
Review of rion-harmonic tones; melody writing; species counterpoint; two and three-part invention; fugue; forms; iistening; melodic and harmonic dictation. II a/y 1972-73

325, 326 ORCHESTRATION $(1 / 2,1 / 2)$
The range, transposition, sound, technical abilities, limitations and notation of instruments; scoring and arranging for conventional and unique instrument grouping. I $11 \mathrm{a} / \mathrm{y}$ 1972-73

327 COMPOSITION ( $1 / 4-1$ )
A systematic a pproach to contemporary musical composition; students create, notate and perform works for so: small and large ensembles. May be repeated for additional credit.

## LITERATURE AND PERFORMANCE

330 CHOIR OF THE WEST ( $1 / 4$
Auditions at the beginning of each fall semester; sacred and secular music, with and without accompaniment. I il

331 UNIVERSITY CHORALE ( $1 / 4$ )
Auditions at the beginning of each fall semester; sacred and secular music with and without accompaniment. I II

332 MADRIGAL SINGERS AND VOCAL ENSEMBLE $(1 / 4)$
Membership by audition; sacred and secular music. I II
333 UNIVERSITY BAND (1⁄4)
Membership by audition. I II
334 UNIVERSITY ORCHESTRA ( $1 / 2$ )
Membership by audition. I II
335 CHAMBER ENSEMBLE ( $1 / 4$ )
Prerequisite: Consent. I II
336 TWO PIANO ENSEMBLE ( $1 / 4$ )
Two piano and piano duet literature from all periods; open to majors and non-majors.

337 ACCOMPANYING ( $\%$ )
To assist the pianist in gaining experience and knowiedge in accompanying literature from alt periods.

338 CONTEMPORARY DIRECTIONS ENSEMBLE $(1 / 4)$
Public and laboratory performance experience in contemporary music; membership by audition.

339 BASIC CONDUCTING (1/2)
Basic technique of reading and conducting scores; practice in instrumental and vocal conducting. I II

340 MUSIC IN THE ELEMENTARY SCHOOL $(1 / 2)$
Techniques and procedures for the elementary school program; the rote song, child voice, rhythm activities, Kodaly method. Prerequisite: 123 or equivalent music background. I II

341 MUSIC SKILLS AND METHODS FOR ELEMENTARY TEACHERS
The rudiments of music; rhythms, sight reading, elementary keyboard experience and creative music; techniques and procedures for the elementary music program. I II

## PRIVATE INSTRUCTION

PIANO ( $1 / 4-1$ )
ORGAN $(1 / 4-1)$
VOICE ( $1 / 2-1$ )
353 VIOLIN, VIOLA $(1 / 3-1)$

BRASS ( $1 / 4-1$ )
PERCUSSION (1⁄2-1)

363 HISTORY OF PIANO LITERATURE
AND PERFORMANCE ( $1 / 2$ )
Representative compositions from all periods of piano literature; open to majors and non-majors. a/y 1972-73

364 HISTORY OF ORGAN BUILDING ( $1 / 2$ )
Historic and contemporary traditions of organ building; tonal design, acoustics, architecture and playing mechanisms; basic techniques for tuning and maintenance; examinations of several organs and two organ building shops. Prerequisite: consent. a/y Interim 1974

365 VOCAL LITERATURE ( $1 / 2$ )
Solo vocal literature from antiquity through the present. In-class performance. I a/y 1973-74

367 HYMNOLOGY AND SACRED MUSIC LITERATURE
Christian hymnody with an analysis of poetry and music; principles underlying effective worship music and a survey of anthem, cantata and oratorio literature. 11 a/y $1973-74$
WORSHIP AND LITURGY
The nature and scope of Christian worship; main liturgies beginning with temple and synagogue, Eastern Orthodox, Roman Catholic, Lutheran, Calvinist and Anglican; special consideration of Lutheran. II aíy 1973-74

401 OPERA WORKSHOP (1⁄4-1)
Stage production of operas. Prerequisite: Consent.
423 ADVANCED FORM AND ANALYSIS
Harmonic and structural analysis of literature, classical 117
through contemporary periods. Prerequisite: 224. I
441 KEYBOARD PEDAGOGY $(1 / 2-3 / 4)$
Teaching techniques for prospective instructors of beginning and advanced piano and organ; opportunity for practical application.
442 VOCAL PEDAGOGY $(1 / 2)$
Clear, concise approaches to teaching vocal technique based upon physiological and acoustical laws which govern singing; comparision of texts on vocal production, in-class demonstrations and a project in student teaching; diction, phonetics, interpretation. II
443 ORGAN REPERTOIRE AND IMPROVISATION $(1 / 2)$
Organ literature and its relationship to organ design and stylistic performance; rechniques in practical improvisation; emphasis on liturgical hymn tune improvisation for introductions, interludes and free accompaniments. Prerequisite: Consent. (limit 10). a/y 1972-73

445 ADVANCED CONDUCTING, TECHNIQUES
AND MATERIALS ( $1 / 2$ )
Literature, its teaching and conducting problems. Prerequisite: 339 . I

447 MUSIC IN THE SECONDARY SCHOOL $(1 / 2)$
The organization and administration of the secondary school music program. I

491,492 INDEPENDENT STUDY $(1 / 4-1)$
590

GRADUATE SEMINAR $(1 / 4-1)$
Offered on demand.

## NURSING

## ADMISSION AND CURRICULUM REOUIREMENTS

Students are admitted to the nursing program on a space available basis after successful completion of prescribed pre-nursing courses. To be eligible for admission, the student must evidence a physical, emotional and intellectual aptitude for nursing, and have a minimum cumulative grade point average of 2.0 in college work as well as a minimum grade of 2.0 in each course required for the program as indicated in the curriculum.

Standards required for admission must be maintained throughout the program. If a student receives a grade point of less than 2.0 in any course which is a prerequisite for a nursing course, she may not continue in that nursing course until the prerequisite course is repeated with a grade point of 2.0 or above.

A candidate who has attended some other institution, including graduation from an approved school of nursing, may receive credit toward a degree in nursing provided she meets the general requirements for admission to the School of Nursing. Transferable credits are evaluated on an individual basis. The graduate nurse applicant may receive credit by examination in selected nursing and related courses in accordance with the Advanced Placement policy of the University. The student will follow the curriculum outlines for the Bachelor of Science in Nursing in regard to course requirements, sequence of courses and prerequisites.

The School of Nursing faculty reserves the right to request the withdrawal of a nursing student who fails to demonstrate competency or who fails to maintain professional conduct.

## ADDITIONAL COSTS

Students provide their own transportation between the University campus and the clinical laboratory areas. Car pools are often established in the sophomore and junior years. Each student must have access to a car for individual use during the senior year. Students are required to carry professional liability insurance during the sophomore, junior and senior years (available under a group plan at a nominal cost to the student). Health examination fees and student uniforms (approximately $\$ 70$ ) are the responsibility of the student.

## HEALTH

The nursing student is responsible for maintaining her own health and is a teacher of health. Physical examinations, x-rays and immunizations are required prior to admission to the clinical areas and periodically thereafter, and are the responsibility of the student. Students should carry personal health insurance.

## RESOURCES, FACILITIES AND SERVICES

Doctors Hospital, Tacoma, Washington (70 beds)
C.B. Ritchie, M.D., Administrator

Harriet Huffman, R.N., Director of Nursing
Good Samaritan Hospital, Puyallup, Washington (96 beds) David K. Hamry, M.H.A., Administrator Jean Short, R.N., B.S., M.N., Director of Nursing Service

Lakewood General Hospital, Tacoma, Washington (100 beds)
Harry Sanislo, Administrator
Walter Wilhelm, B.S., Assistant Administrator
Orpha J. Lucas, R.N., Director of Nursing

Madigan General Hospital, Fort Lewis, Washington (536 beds)
Brig. General John Boyd Coates, Jr., M.D., Hospital
Commander
Colonel Margaret E. Hughes, R.N., M.A., A.N.C., Chief Nurse
Maple Lane School for Girls, Centralia, Washington (150 beds) Richard Barrett, Superintendent

Mary Bridge Children's Hospital, Tacoma, Washington ( 68 beds) Fred A. Pritchard, M.B.A., Administrator Karen Lynch, R. N., B.S.N., Director of Nursing Service

Puget Sound General Hospital, Tacoma, Washington (287 beds) Robert Huesers, M.S.H.A., Administrator Gretchen Brezarich, R.N., Director of Nursing Service

St. Joseph's Hospital, Tacoma, Washington (250 beds)
Sister Margaret Hudon, O.S.S., Administrator
Florence Reidinger, R.N., Director of Nursing Service
Tacoma General Hospital, Tacoma, Washington (263 beds) Robert Flynn, M.H.A., J.D., Administrator Betty Hoffman, R.N., B.S.N., Director of Nursing Service

Tacoma-Pierce County Health Department Paul McNutt, M.D., M.P.H., Director of Health
Nancy Mead, R.N., M.N., Chief of Nursing Division
Tacoma Public Schools
Donna Ferguson, R.N., B.S., M.N., Assistant in Pupi! Personnel Service

Veterans Administration Hospital, American Lake, Washington (904 beds)

Florence Naske, R.N., B.S., Chief of Nursing
Anna K. Heinzelmann, R.N., B.S., Associate Chief, Nursing Service for Education
Thomas March, M.D., Hospital Director

BACHELOR OF SCIENCE IN NURSING: In addition to the nursing core requirements listed below, 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. A sample curriculum in nursing is available upon request from the School of Nursing.

The School of Nursing has been involved in an intensive study of its curriculum and is implementing the first year of the new curriculum beginning in September, 1972. The new requirements will be made available on a yearly basis.

Students entering the first year of the curriculum in 1972 will enroll for the following courses: Chem. 103, Bio. 111, Psych. 101, Soc. 111.

Students currently enrolled in the nursing program and students transferring in with advanced standing will follow the curriculum as outlined below:

First Year: (1971-72 only) Bio. 161, Chem. 103, Psych. 101, Bio. 162, Bio. 201, Soc. 111.

Second Year: (1972-73 only) Nsg. 251, 252, 253, 254, 255, 256, 263, and Soc. 445 or 325.

Third Year: (1972-73 and 1973-74 only) Psych. 335, Nsg. 361-362-363, Nsg. 371-372

Fourth Year: (1972-73, 1973-74, and 1974-75 only) Nsg. 410A, 410B, 446, 450, 451, 452.

## 251 MENTAL HEALTH (1/2)

Mental health concepts; formation of self-concept and other concepts related to effective interpersonal relationships. Prerequisite: Soc. 111, Psych. 101.I

## 252 NURSING TECHNIQUES

Practice of basic nursing techniques; scientific principles underlying these techniques. Prerequisite: Bio. 161, 162, 201; Chem. 103. I

253, 263 DISEASE ENTITIES
Common diseases affecting adults; etiological, pathophysiological and therapeutic regimes. Prerequisite: Bio. 161, 162, Chem. 103. I II

254 PATIENT HEALTH TEACHING ( $1 / 2$ )
Principles of teaching and learning, problem solving and critical thinking as related to assessment of health needs, exercise of judgment in planning for patient teaching, and application of principles and development of basic teaching skills. Prerequisite: 251, 252, 253. II

255 SURGICAL INTERVENTION (1 $1 / 2$ )
Nursing care for patients having surgical intervention, including clinical experience in all areas of surgical care, pre-operative preparation, nursing techniques in the operating room, recovery room and post-operative care. Prerequisite: 251, 252, 253. II

256 REHABILITATION NURSING ( $1 / 21$ )
Various types of nursing problems common to patients in need of rehabilitation, decision-making in this area, and limited experience in administering necessary nursing care. Prerequisite: 251, 252, 253. II

361, 362, 363 MATERNAL-CHILD NURSING
Care to families during child-bearing and child-rearing processes; health promotion and care of the sick; observation and care of mothers and children in hospital wards, clinics and related community agencies. Prerequisite: 254, 255, 256; prerequisite or corequisite: Psych. 335 or Education 201 or 301 and Soc. 445 or 325.1 II

371, 372 PSYCHIATRIC NURSING
Major concepts of mental health and psychiatric nursing related to the total therapeutic milieu of psychiatric patients; personal needs and behavior patterns of adjustment. Prerequisite: 254, 255, 256. I II

410 TRENDS IN NURSING
The professional heritage of nursing, nursing organizations, employment opportunities, problems and responsibilities in nursing; preparation for nursing, economic security, legislation, organizational structure, professional nursing roies, continued education and professional growth, the future of nursing. Prerequisite: Senior status. Half the course offered each semester.

COMMUNITY NURSING
Nursing care in the home and community; working with patients and families, utilization of health and welfare resources. Prerequisites: 363,372 , Senior status. I II

## 450 SELECTED CLINICAL PROBLEMS I

Selected clinical problems in nursing care of medical-surgical patients; nursing assessment, criteria for determining priority of patient needs, nursing care for groups of patients, emergency and resuscitative measures; current trends in community and hospital planning for emergency nursing activities. Prerequisite: 363,372 , Senior status. I II

451 SELECTED CLINICAL PROBLEMS II
Selected clinical problems in nursing care of acutely ilf medical-surgical patients and patients with complex nursing needs; introduction to new parameters in nursing. Prerequisite: 363, 372, Senior status; prerequisite or corequisite: 450. I II

## 452 NURSING LEADERSHIP

Principles of leadership and nursing team leadership; utilization of nursing personnel, in-service education, the interdisciplinary health team, and basic concepts of nursing management. Prerequisite: 363, 372, Senior status; prerequisite or corequisite: 451. I II

491, 492 INDEPENDENT STUDY $(1 / 4-1)$
Prer equisite: Consent of Director.

## PHILOSOPHY

The University requirement of one course in philosophy may be satisfied by any course offered by the department except Philosophy 233. The initial course in the subject is customarity Philosophy 201 or 221, though neither of these courses is a prerequisite for any other course. 300 level courses are especially suited for students with particular interests or preparation. 400 level courses have the specific prerequisites listed in their descriptions.

BACHELOR OF ARTS: A minimum of 6 courses including Philosophy 233, and any two of the following: 331, 333, 335. In addition to course requirements, all majors must (1) complete a prescribed reading program (described in a special brochure available from the department), and (2) take a departmental examination before beginning their final semester in residence. Consultation with departmental faculty is important in planning a meaningful major program and should be sought as early as possible.

Courses in the department are designed to meet the needs of a variety of students: (1) those who desire some knowledge of philosophy as a basic element in liberal education; (2) those who wish to pursue some special interest in, for example, ethics, science, religion, or the history of thought; (3) those who wish an understanding of philosophy to support their work in other fields, e.g. literature, history, or the sciences; (4) those who plan to use a major in philosophy as a preparation for graduate study in another field, e.g.theoiogyor law; (5) those who plan to do graduate work in philosophy itself, usually with the intention of teaching in the field.

## 201 INTRODUCTION TO PHILOSOPHY

Perennial philosophical issues, systems and thinkers; the nature of knowledge, the function of science, values, human
nature and its social implications, reiigion and $k$ nowledge of God. Development of critical and systematic pinilosophical thinking about all issues. I II

## 221 ETHICS

Major rnoral systems of Western civilization; intensive examination of some contemporary moral theories; the principles of Christian ethics. I II

233 LOGIC
Principles of argument and proof; deductive, inductive and symbulic logic; the nature and functions of language, problems of semantics, the philosophy of logic. I

324 MAN IN SOCIETY
Philosophical bases of social institutions; the nature of man, values, and problems of social existence. I a/y
*328 POLITICAL AND LEGAL PHILOSOPHY
Moral justification of the democratic state, the role of human rights in justify ing and limiting the obligation to such a state, the relationship of the concept of moral justice to the rule of law, the authority of judicial decisions and specific arguments about the justification of disobedience of law. I a/y

331 ANCIENT AND MEDIEVAL PHILOSOPHY
Western philosophy from the Presocratic period to the end of the fourteenth century; the work of Plato, Aristotle and major Christian ohilosophers of the Middle Ages such as Augustine, Aquinas and Ockham. I

## 333 MODERN PHILOSOPHY

Philosophy from the seventeenth through the early nineteenth centuries; continental rationalism, British empiricism and German idealism; Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, Kant, Fichte, Schopen hauer and Hegel II

## 335 CONTEMPORARY PHILOSOPHY

lisues and methods from the late nineteenth century to the preser:t; may include pragmatism, empiricism, process philosophy, existentialism and analysis as developed by Mill, James, Dewey, Whitehead, Sartre, Russell, Ayer and Wittgenstein. II

## 361 ORIENTAL. THOUGHT

Major philosophic systems of India, China and Japan; related literature, art, religion and general culture of the Orient.

365 KIERKEGAARD AND EXISTENTIALISM
Modern existentialism, its main themes and their relation to other philosophical traditions; its impact on such fields as literature and psychology; life and thought of two key figures: Soren Kierkegaard and Jesn-Paul Sartre; related thinkers inciuding Nietzsche, Heidegger, Jaspers, Berdyaev, Unamuno and Marcel. I a/y

## 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

THEORY OF VALUE
The nature of human values; contemporary discussions 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, man's knowledge of them, the character and use of the language of evaluation. Il a/y

## 393 PHILOSOPHY OF RELIGION

Classical and contemporary views of traditional religious problems: the existence of God, the religious experience, revelation, immortality and others; an acquaintance with the principal tenets and the world view of the Christian religion is assu med. II

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

427 BOOKS, IDEAS AND MEN:
SEMINAR IN PHILOSOPHY
A reading and discussion course conducted by one or more faculty members; the student reads selected works in philosophy, hears and reflects on different interpretations of the ideas involved, and participates actively in analysis and argument. Works studied may be on any number of announced topics such as ethics, assthetics, religion, knowledge, science, history of ideas. I a/y

ADVANCED SEMINAR IN PHILOSOPHY
Topic to be announced at the time the course is offered, normally some aspect of contemporary philosophy. Prerequisite: Consent. I a/y
491. 492 INDEPENDENT READING AND RESEARCH $(\%-1 / 2)$ Prerequisite: Departmental consent. I II
*Indicates that this course has been approved for inclusion in the catalog on a provisional basis.

## PHYSICAL EDUCATION

UNIVERSITY REQUIREMENT: Students are encouraged to complete the physical education requirement ( 4 one-quarter courses including PE 100) during the freshman and sophomore years. Eight one-quarter activity courses may be counted toward graduation. Students are encouraged to select a variety of activities at appropriate skill levels. Most physical education activities are offered on a co-educational basis. All physical education activity courses are graded on an "A, Pass or Fail" basis.

BACHELOR OF ARTS (Recreational Concentration): Ten courses, including 277, 330, 483, 497, Psych. 335; one course (4
semester hours) of: PE $481(1 / 2), 482$ or $284-88$; two courses ( 8 semester hours) of: Art $230-330,235,350,326,341$ ( $1 / 2$ ), 365, 370, CA 450, Music 340, 341, PE $292(1 / 2), 322$ or 365 ; two courses ( 8 semester hours) of: BA 281, 290, 350, Pol. Sci. 356, 457, Psych. $243,340,410$, Soc. $211,325,328,365,425$ or 432.

BACHELOR OF ARTS (Corrective Therapy Concentration): Twelve courses, including PE 277, 292, 360, 391, 392, 484, 497, plus one course of P.E. elective; Biology 161, 162; Psych. 101, 221 plus $1 / 2$ course Psych. elective.

HEALTH MINOR: Five courses: 295, 324, 326, and Bio. 261, 162.

ATHLETIC COACHING MINOR: 277, 481, 482; and three courses selected from $370,371,372,374$ or 361 ; and participation in at least one intercollegiate or extramural sport.

ATHLETIC COACHING MINOR FOR WOMEN: $277,331,481$, 482; and two courses selected from 332, 361, and 370-375; and participation in at least one intercoliegiate or extramural sport.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

## PHYSICAL EDUCATION ACTIVITIES PROGRAM

100 ORIENTATION TO PHYSICAL EDUCATION ( $1 / 4)$
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
200-229 INDIVIDUAL AND DUAL ACTIVITIES $(1 / 2)$ 201 (Beginning Golf), 202 (Intermediate and Advanced Golf), 203 (Archery), 204 (Bowling), 207 (Gymnastics), 208 (Skiing), 209 (Intermediate Gymnastics), 210W (Slimnastics), 211 (Beginning Badminton), 212 (Intermediate Badminton), 214 (Beginning Tennis), 215 (Intermediate Tennis), 218 (Backpacking), 219 (Canoeing), 222M (Handball, Squash and Paddleball), 223W (Squash and Paddleball), 225 (Aerobics), 227M (Weight Training), 228 (Basic Mountaineering), 229 (Equitation).
230239 AQUATICS (1/4)
230 (Beginning Swimming), 231 (Intermediate Swimming), 232 (Advanced Swimming), 234 (Senior Life Saving), 236 (Synchronized Swimming), 237 (Skin and Scuba Diving).

## 240-249 RHYTHMS (1⁄4)

240 (Folk and Social Dance), 241 (Modern Dance), 242 (Intermediate Modern Dance).
250-259 ATHLETIC GAMES ( $1 / 4$ )
251W (Volleyball and Fie!d Hockey), 252W (Basketball and Softball), 253M (Speedball and Volleyball), 254M (Basketball and Softball).
PROFESSIONAL PHYSICAL EDUCATION PROGRAM

275 WATER SAFETY INSTRUCTION ( $1 / 2$ )
The American Red Cross Water Safety Instructor's Course;
pool management and operation. Prerequisite: 234.
277 SCIENTIFIC FOUNDATIONS OF PHYSICAL EDUCATION The relationship of physical education to education; the biological, sociological, psychological and mechanical principles underlying physical education and athletics. I
281 INJURY PREVENTION AND THERAPEUTIC CARE ( $1 / 2)$
Prevention, treatment and rehabilitation of all common injuries sustained in athletics; physical therapy by employment of electricity, massage, exercises, light, ice and mechanical devices. II

284 PROFESSIONAL ACTIVITIES, TEAM SPORTS FOR MEN Planning, teaching and evaluating team activities: basketball, volleyball, soccer, speedball, track and field, wrestling, touch football, softball. II a/y
285 PROF ESSIONAL ACTIVITIES,
INDIVIDUAL AND DUAL SPORTS
Planning, teaching and evaluating these activities: tennis badminton, archery, golf and bowling. I
286 PROFESSIONAL ACTIVITIES, GYMNASTICS AND DANCE
Planning, teaching and evaluating gymnastics and dance. II
288 PROFESSIONAL ACTIVITIES, TEAM SPORTS FOR WOMEN
Planning, teaching and evaluating basketball, field hockey, soccer, speedball, volleyball, softball, track and field. II a/y

292 FIRST AID(1/2)
This course meets requirements for the American Red Cross Standard and Advanced Cards. I

295 SCHOOL HEALTH (1/2)
Health concepts which relate to the total school health program, including instruction, services and environment; the relationship between health and all levels of education. I II

322 PHYSICAL EDUCATION IN
THE ELEMENTARY SCHOOL (1⁄2 -1)
Organization and administration of a developmental program for grades K-6; sequential and progressive programming; large repertoire of activities. Prerequisite: 277. I II

324 PERSONAL HEALTH
Practical application of health knowledge to daily living; a foundation for understanding health behavior. Il a/y

COMMUNITY HEALTH
Organizations associated with public health and their implications to community health problems.

328 CURRICULUM DEVELOPMENT AND ADMINISTRATION Organization and administration of physical education and athletics (7-12); curriculum deveiopment and implementation. Prerequisite: 277. I

RECREATION PROGRAMMING
Supervising and administering recreational programs for the school or community. I

THE WOMAN AS A COMPETITOR $(1 / 2)$
The psychology of coaching, coaching technique arid methodology; training, care and prevention of selected injuries; sociological implications of athletic competition for women; designed for women physical education majors and minars interested in coaching competitive teams. II

332 OFFICIATING FOR WOMEN (112)
Rules and officiating techniques of the common team sports: soccer, field hockey, volleyball, basketball and softball; designed to train qualified women officials; open to all women - recommended as an elective for majors and minors. 11

360, 361 PRACTICUM IN TEACHING AND COACHING $(1 / 2,1 / 2)$
Student-assistant coaching teachingexperiences; planning and conducting intercollegiate athletics and physica! education instruction; students work under supervision of the head coach or physical education instructors. Prerequisite: one course professional activities, departmental approval. I II

362 RHVTHMS AND DANCE
Historical background, establishment and conduct of dance program, teaching techniques and accompaniment, planning and presentation of dances; modern dance techniques. I a/y
370.375 COACHING THEORY (Each Course - $1 / 2$ )

Techniques, systems, training methods, strategy and psychology of coacining; 370 (Basketball), 371 (Football), 372 (Track and Field), 373 (Baseball), 374 (Wrestling). I II

391,392 CORRECTIVE THERAPY $(1,1)$
A corrective therapy clinical training program including lecture, laboratory, experiences and clinical practices. Prerequisite: Departmental approval (maximum enrollment 5). 111

490 HISTORY AND PHILOSOPHY OF PHYSICAL EDUCATION Physical education from ancient through modern times; historical, philosophical and psychological bases of physical education; special attention to current trends. Prerequisite: 277. II a/y

481 PHYSIOLOGICAL BASIS FOR
MOTOR PERFORMANCE ( $1 / 2$ )
Scientific basis for training and the physiological effect of exercise on the human body. Prerequisite: 277. Recommended: Biology 162.I

## 482 BIOMECHANICS OF HUMAN MOTION

The kinesiological and mechanical aspects of human movement; analysis of various activities. Prerequisite: 277. Recommended: Biology 161 . II

483 RECREATION ADMINISTRATION
The organization, management and direction of recreational services: legal basis, administrative procedures, financial aspects, personnel management, facilities and internal organization. II

484 MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION ( $1 / 2$ )
The selection, construction and interpretation of evaluatory
techniques related to the physical education program. II
INDEPENDENT STUDY $(1 / 2-1)$
Prerequisite: Consent of the director. I II S
597 GRADUATE RESEARCH $(1 / 2-1)$
Open to graduate students whose minor is in the field of physical education. Prerequisite : Consent of the director. I II S

## PHYSICS

The department offers an honors course at the freshman level providing special challenge for students demonstrating superior aptitude, as determined by the department. After completion of the honors course, students go directly into the junior sequence which offers the opportunity to participate in the undergraduate research program one year eartier.

Participation in an ongoing research project is enccuraged for students who demonstrate an ability to profit from independent research. Those invited to participate are not required to fulfill the regular laboratory requirements and will earn equivalent credit.

BACHELOR OF ARTS: Minimum of seven and one-half courses including one-half course in advanced laboratory and/or research.

BACHELOR OF SCIENCE: Ten courses including 101, 253, 254, 272, 331, 336, 401, 406, 456 and one course in advanced laboratory and/or research. Required supporting: Chem. 115 plus either Chem. 341 or Engineering 351 and Math through 351

BACHELOR OF SCIENCE (Engineering Physics): Ten-course core plus two electives as follows: Physics 101, 253, 254, 272, 331, 336, and one course unit in advanced laboratory (usually 321,322, 421, 422); Engineering 151 ( $1 / 2$ course), 231 ( $1 / 2$ course), 232, 351 plus two courses chosen from Physics 401, 406, 456, Engineering 441, 442.* Required supporting: one course in chem. and math through 332.

> *Courses are chosen on the basis of the student's career objectives: electrical engineering: Engineering 441 and Physics 456 ; engineering mechanics: Engineering 442 and Physics 456 ; nuclear engineering: Physics 401 and 406 .

BACHELOR OF ARTS IN EDUCATION: Because their needs differ from the needs of students preparing for graduate studies, the department offers a course sequence specifically for students preparing for careers in teaching. Extensive prior work in science or math is not a prerecquisite for this sequence. For details, see School of Eoucation.

## 101 BASIC CONCEPTS OF PHYSICS

The intellectual importance and excitement of physics; the character of physical laws; relationship between physics and other fields; conservation principles, mathematical philosophy; atomic picture of nature; concepts of relativity and of quantum mechanics; for majors and non-majors; material described in general terms; no laboratory. No prerequisite.

## DISCOVERY PHYSICS

A laboratory-oriented course for non-majors. Experiments in mechanics, heat, sound, electricity, optics and modern physics. Prerequisite: 101

## 111, 112 HONORS PHYSICS

Translational and rotational motion, particle dynamics, work, energy, the conservation laws, collision theory, simple harmonic motion. thermodynemics and kinetic theory of gases, electrical fields, Gauss's law, electric potential, circuit components and analysis, magnetic field, inductance, magnetic properties of matter, electromagnetic waves, geometric and physical optics, diffraction, spectra and quantum physics; includes laboratory on an independent study basis.

151 ENGINEERING GRAPHICS ( $1 / 2$ )
See General Engineering 151.

## 211 DESCRIPTIVE MODERN PHYSICS

Atomic, nuclear and elementary physics for high school teachers and biology, chemistry and geology majors; radiation laws, radiation effects on living organisms, natural and artificial radioactivity, structure of solids, Bohr and Rutherford theory of the atom, X-rays, gamma rays, beta emission, alpha emission, elementary particies, cosmic rays, particle accelerators, lasers, emission and absorption spectra. Includes laboratory. Prerequisite: 101 and 102 or equivalent; college algebra.

231 STATICS (1 $1 / 2$ )
See General Engineering 231.
232 MECHANICS OF SOLIDS
See General Engineering 232.

## 253. 254 GENERAL PHYSICS

The unified view of physics; topics in mechanics, molecular physics, wave motion, light, electromagnetism. Prerequisites: 101 or consent, Math 151.

272 ELECTRICAL CIRCUITS AND INSTRUMENTATION
Electronic devices and their application; $A-C$ and $D-C$ circuit analysis; physics of transistors and vacuum tubes and their circuits; $A-C$ and $D-C$ amplifiers, power supplies, analog and digital computers. Includes laboratory. Prerequisite: 253,254 or consent .

321, 322 ADVANCED LABORATORY ( $1 /$ )
Demonstration of fundamental principles by experimental techniques; modern and classical experiments which familiarize the student with modern measuring tools. Requires knowledge of the digital computer. Prerequisite: 272.

331 ELECTROMAGNETIC THEORY
Electrostatics, dipole fields, fieids in dielectric materials, electro-magnetic induction, magnetic properties of matter, generation and propagation of electromagnetic waves with an emphasis on the relationship with physical optics. Prerequisite: 253, 254; corequisite: Math 332.

336 MECHANICS
Fundamental mechanics; mathematical formulation of physicai problems, motion of particles in one, two or three dimensions, motions of systems of parsicles, dynamics and statics of rigid bodies, moving coordinete systems, Lagrange's equations and Hamiitonian formalation of mechanics. Corequisite: Math 332.

THERMODYNAMICS
See General Engineering 351
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.

RADIOISOTOPE TECHNOLOGY
Characteristics of nuclear radiation detection and measurement methods and equipment; theory of nuclear disintegrations and application to problems in physics and chemistry. Prerequisite: 102 or equivalent

401 INTRODUCTION TO OUANTUM MECHANICS
The origin of quanturn theory, particles and waves, Schrodinger equation, motion of particles in one dimension, uncertainty principle, wave mechanical treatmant of the harmonic oscillator, properties of wave functions, perturbation theory of non-degenerate and degenerate systems, the exclusion principle, many electron systems, collision problems, angular momentum and electron spin, Zeeman effect and Stark effect, hydrogen fine structure and hyperfine structure and quantumi number and the periodic table.

## ADVANCED MODERN PHYSICS

Application of quantum mechanics; X-ray spectra, molecular binding, molecular rotation and vibration, specific heat of a diatomic gas, specific heat of solids, the free-electron theory of metals, the band theory of solids, nuclear reactions, radioactivity, nuclear models, nuclear forces. neutron production and nuclear fission, particie accelerators and nuclear reactors, high energy physics, strong and weak interactions, pions, muons, leptons, and hadirons.

## 441, 442 ADVANCED LABORATORY $(1 / 2-1 / 2)$

441 NETWORK ANALYSIS
See General Engineering 441.

442 TRANSPORT PHENOMENA
See General Engineering 442.
456 MATHEMATICAL PHYSICS
Boundary value problems, special function5, matrices and tensors, probability theary, eigenvalue problams, complax variables, contour integration and their applications to physics.

491, 492 INDEPENDENT STUDY $(1 / 2-1)$
Prerequisite: consent of department chairman.

## 497, 498 RESEARCH (1⁄4-1)

Prerequisite: consent of department chairman.
597,598 GRADUATE RESEARCH ( $1 / 4-1$ )
Open to master's degree candidates only.

## POLITICAL SCIENCE

BACHELOR OF ARTS: Seven courses including 101, 251, 325 and 326.

URBÁ AFFAIRS PROGRAM: For students wishing to prepare themselves specifically for career possibilities in state and local government. For certification, successful completion of the following courses is required: Pol. Sci. 101, 251, 325, 326, 254 or 356,457 and 458; Econ. 150 and 362; Soc. 111 and 325.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

101 is the prerequisite for all other courses in the department.

## 101 INTRODUCTION TO POLITICAL SCIENCE

The scope, method and vocabulary of political science, political behavior and governmental organization; problems of political theory and comparative methods of studying political institutions. I II

## 251 AMERICAN NATIONAL GOVERNMENT

The federal constitution and the distribution of the governmental powers; structure and procedure of national

325 HISTORY OF POLITICAL THOUGHT
Nature and role of the state from ancient to modern times. I
326 RECENT POLITICAL THOUGHT
Major modern philosophies: Democracy, conservatism, capitalism, socialism, anarcho-syndicalism, communism, racial and political elitism, nationalism, liberalism, Christianity; contemporary problems. II
327 AMERICAN POLITICAL THOUGHT
The sources, development and contemporary trends in American political thought and the implications of ideas for political action.

331 INTERNATIONAL RELATIONS
Concepts and vocabulery of international relations; foreign policy of the major world powers and contemporary international problems. I

336 INTERNATIONAL ORGANIZATION AND LAW
The United Nations and its agencies; other international organizatıons; the historical development, nature and principles of international law. II

354 AMERICAN STATE AND LOCAL GOVERNMENT
A comparative study of state and local governments with special attention to the Pacific Northwest. II $\mathrm{a} / \mathrm{y}$

356 PROBLEMS IN LOCAL GOVERNMENT
Urbanization and regional growth studied in relation to
governmental response. II a/y

## 361 AMERICAN POLITICAL PARTIES

Party history and organizations, nominations and elections, campaigns and conventions, electoral problems and administration, bossism in local politics, pressure groups, platforms. I a/y

## 364 THE LEGISLATIVE PROCESS

Theory, organization and procedure of legislative bodies in the United States; contemporary Congress and Washington state legislature. II a/y

421 TRENDS IN CONTEMPORARY POLITICAL THEORY
Interdisciplinary developments, the theories of political and cultural conflict, socialization and communication; models and explanations in Social Science. I II

434 GOVERNMENT AND THE ECONOMY See Economics 434.

451 AMERICAN CONSTITUTIONAL HISTORY See History 451.

454 AMERICAN CONSTITUTIONAL LAW
Significant issues in the light of contemporary Constitutional interpretation: Church-state relations, civil rights, free speech, due process, reapportion ment. II

457 PRINCIPLES OF PUBLIC ADMINISTRATION
Management as applied to the affairs of state; the nature of human behavior in organizations; administrative law and quasi-judicial practices; civil service, budget and fiscal control, centralization, coordination, integration in administrative areas. I

458 INTERNSHIP IN PUBLIC ADMINISTRATION
An internship with a department of local or state government; planned and supervised jointly by the supervising government official and a member of the political science faculty. Prerequisite: consent. I II

464 INTERNSHIP IN THE LEGISLATIVE PROCESS
Internship with a member of the Washington State Legislature; planned and supervised jointly by the legislator and a member of the political science faculty. Prerequisite: consent. Interim II a/y

481 STATISTICAL METHODS
See Economics 481
483 POLITICAL SYSTEMS OF
THE BRITISH COMMONWEALTH
Contemporary governmental and political institutions of the United Kingdom, Canada and other British commonwealth states. I a/y
484 SOVIET POLITICAL SYSTEM
USSR political system; ideology, role of the Communist Party, the nature of the constitution, administrative agencies and nationality policy. II a/y

491, 492 INDEPENDENT READING AND RESEARCH $(1 / 4-1)$ Prerequisite: consent of the department chairman. I II

597, 598 GRADUATE RESEARCH $(1 / 2-1)$
Open to master's degree candidates only. Prerequisite: departmental consent. I II

## PSYCHOLOGY

BACHELOR OF ARTS: Eight courses including 101; 243; 340 or $410 ; 460$; one of $330,335,420$ or $421 ; 490$ p!us two full electives. A course in statistical methods is also required. 110 and 221 may not be counted in the major.

## 101 INTRODUCTION TO PSYCHOLOGY

An introduction to the scientific study of behavior; scientific methods for studying the behavior of living organisms; problems such as motivation, learning, emotion, intelligence, personality and adjustment. I II

110 STUDY SKILLS (1/2)
To assist in the improvement of reading skills and other techniques for effective study; class work, supplemented by individual counseling and specia! training in reading skills. No pre:equisite. I II

221 THE PSYCHOLOGY OF ADJUSTMENT (1⁄212)
Problems in personai adjustment in everyday living Prerequisite: 101.1 II

243 SCIENTIFIC METHODS ( $1 / 2-1$ )
Basic experimental and research design with specific applications to sensory and perceptual processes. Lecture and laboratory. Prerequisite: 101.

330 SOCIAL PSYCHOLOGY
Research findings concerning the interaction between groups and the individual; attitudes, values, role behavior and related topics examined in the light of interpersonal relations and group processes. Prerequisite: 101.

335 CHILDHOOD AND ADOLESCENCE (1/2-1)
Individual development from conception through adolescence; genesis of behavior and its development through factors such as learning and social influence. Lecture and laboratory. Lecture may be taken as a half-course. Prerequisite: 101.

340 THE BIOLOGY OF BEHAVIOR ( $1 / 2-1$ )
The relationship between anatomy and physiology and behavior. Lecture and laboratory. Lecture may be taken as a half-course. Prerequisite: 243.

403 THE PSYCHOLOGY OF INFANCY AND CHILDHOOD $(1 / 2)$ Physical, intellectual, emotional and social development of the individual from the pre-natal period to adolescence; problems of behavior and adjustment. Prerequisite: Two or more psychology beyond 101.

405 ADOLESCENT PSYCHOLOGY $(1 / 2)$
Physical development, mental traits, social characteristics and interests of adolescents; adjustments in home, school and community. Prerequisite: 101 and one of 335,403 or Education 321.

EMOTION AND MOTIVATION (12-1)
Characteristics of emotion and motivation; their role in determining behavior. Lecture and laboratory. (Lecture may be taken as a half-course.) Prerequisite: 101, 243.

PSYCHOLOGY OF PERSONALITY
Current theories of the dynamics and development of personality; research on the causes of individual differences; personality change and techniques of measuring personality. Prerequisites: 101 and at least one full course beyond the 200 leve!.

## BEHAVIOR DISORDERS

Etiology and treatment of behavioral disorders. Prerequisite: 101 and at least one full course beyond the 200 level.

## PSYCHOLOGICAL TESTING

Survey of standardized tests; methods of development, standardization, limitations and interpretations of tests. Prerequisites: 243 or a course in statistics; one course beyond the 200 level.

460 THE EXPERIMENTAL PSYCHOLOGY OF LEARNING
Experimental studies and theories of learning. Lecture and laboratory. Prerequisite: At least three full psychology courses including 243.

STATISTICAL METHODS
Elementary statistical techniques; grapnic representation; measures of central tendency; simple correlation analysis, sampling theory, inferential and non-parametric statistics.

490 HISTORY AND SYSTEMS IN PSYCHOLOGY
A seminar in historical development with consideration of current trends. For senior majors or graduate students; others by departmental consent.

INDEPENDENT STUDY $(1 / 4-1)$
A supervised reading or research project of special interest for senior or graduate students. Prerequisite: departmental consent. I II

## PSYCHOLOGICAL ASSESSMENT

See 491.

Intellectual and personality assessment, theory, and practice; for the former part, the study of such tests as the Stanford-Binet, the Wechsler Preschool and Primary Scale of Intelligence, the Wechsier Intelligence Scale for Children, and the Wechsler Adult Intelligence Scale; for the latter, self-report tests such as the MMPI and projective methods. Prerequisite: 420.450,

COUNSELING THEORY
Counseling theory and techniques. Prerequisite: 450.

## 570 PRACTICUM IN COUNSELING AND TESTING

This course is not part of the regular master's program with a major in psychology, unless the student has completed eleven courses ( 44 hours) in psychology, four of which courses (16 hours) are for graduate credit. Prerequisite: $450,540$.

## SUPERVISED FIELD WORK

The student in a jab situation under the supervision of a qualified counselor or psychologist. Prerequisite: 570.

SEMINAR: PSYCHOLOGY OF LEARNING
Principles and applications of learning; current developments. Prerequisite: At least three courses above the 200 level or departmental consent.

596 INDEPENDENT RESEARCH $(\%-1)$
Supervised indep ndent study in areas not included in the cusriculum. Prerequisite: departmental consent.

## 597 See 596

## 599 THESIS AND THESIS SENIINAR

Development of a thesis problem chosen from the candidate's major ares of concentration and approved by his graduate committes; the candidate will defend his thesis in a final oral examination conducted by his committee; while registered for the thesis and Lintil it is completed, the student is required io attend the thesis seminar. I II

## RELIGION

UNIVERSITY REQUIREMENTS: Two courses for students entering as freshmen or sophomores. A lower division course shall be taken before the end of the sophomore year. The second course mey be another lower division course, an upper division course, or the sentor seminar. Transfer students antering as juniors or seniors are required to take one course.

BACHELOR OF ARTS: Six courses. Majors should plan their program eerly 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.

The department shares academic courses and exchanges professors in THE PAX LEAGUE, a fellowship of Christian peace for modern man. A series of courses is offered and shared by three schools, Pacific Lutheran University, St. Martin's College and the University of Puget Sound, as a contribution to the thoughtful unity of the human family. Proposed Pax League courses for 1972-73 include:

1 " $C H R I S T I A N ~ M O N A S T I C I S M: ~ T H E ~ S A C R E D ~ D R O P O U T " ~$
2. "MAJOR RELIGIOUS TRADITIONS OF INDIA, CHINA AND JAPAN"
3. "CHRISTIAN EDUCATION IN A SECULAR SOCIETY"
4. 'THE THINKING MAN'S APPROACH TO GOD: RELIGION AND MODERN THOUGHT"

For details of the Pax League prog am, consult the semester class schedule.

## 103 JUDAEO-CHRISTIAN LIFE AND THOUGHT

Biblical, historical and theological foundations with reference to contemporary issues.

- 105 RELIGIOUS EXPERIENCE

A description of religion as a pervasive aspect of human history and exp rience; forms of ritual and mysticism, in

Christian and selected non-Christian traditions; symbols of faith in art, music, and literature.

203 BIBLICAL LITERATURE
Literary, historical and religious dimensions of the Bible including perspective on contemporary problems.

CHRISTIAN EDUCATION IN A SECULAR SOCIETY
Toward a functional Christian viewpoint for the educational ministry of the Church in confrontation with secular man.

327 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). I a/y

328 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.

331 WORLD RELIGIONS
History, beliefs and practices of living religions of the world: Primitive, Hindu, Buddhist, Chinese and Japanese religions, Judaism, Islam, with references to Christianity. I II

341 AMERICAN CHURCHES
The development and trends of Christianity in the United States. I

421 OLD TESTAMENT STUDIES
Major areas of inquiry: archoology and the Bible, the Prophets, or the Wisdom Literature. Prerequisite: 203 or equivalent.

422 NEW TESTAMENT STUDIES
Major areas of inquiry: Intertestemental, Synoptic, Johannine or Pauline literature. Prerequisite: 203 or equivalent.

423 THE LIFE OF JESUS
Gospel traditions concerning 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.

430 CHRISTIAN THOUGHT AND MODERN CONSCIOUSNESS Contemporary issues and problems in theology with reference to Biblical and historical resources and recent understandings of man and his world. Readings selected from Bonhoeffer, Buber, Bultmann, Cox, Moltmann, the Niebuhrs, Robinson, Teilhard de Chardin and Tillich. Prerequisite: One lower division course or equivalent.

432 CHR ISTIAN CLASSICS
Christian literature: devotion, biography, theology, poetry; Augustine, Thomas a Kempis, Dante, Luther, Calvin, Pascal,
*Indicates that this course has been approved for inclusion in the catalog on a provisional basis.

Wesley, Kierkegaard and other; group core plus seminar reports.

436 CHRISTIANITY AND THE ARTS
Relationships of Christian thought to the forms and contents of various media of artistic creativity.

490 SENIOR SEMINAR IN RELIGION: HUMAN SEXUALITY
The psychological, sociological, ethical and theological dimensions of sexuality. Open to seniors and graduate students.
RELIGION AND PSYCHOLOGY
The relationship between religion and psychology with particular attention to the psychology of religion and the Christian view of man. Open to seniors and graduate students.
491, 492 INDEPENDENT STUDY
Intended for religion majors, advanced and graduate students; consent of the department is required.

## SOCIOLOGY, ANTHROPOLOGY AND SOCIAL WELFARE

BACHELOR OF ARTS: Minimum of seven courses including 111,423 and 494. The remaining four courses should be chosen in consultation with the department. Courses in anthropology and social work do not count toward a major in sociology unless otherwise stated in the individual course descriptions.

Unless otherwise stated 111 (or consent) is a prerequisite for all courses within the department. Courses are open to challenge by examination.

BACHELOR OF ARTS IN EDUCATION: See School of Education.

## SOCIAL WELFARE

The department holds constituent membership in the Council on Social Work Education, which indicates the Council's approval of the department's program. Students interested in social welfare should work out their program in consultation with a social worker in the department. The social work sequence is open to any student. Details may be found under the SPECIAL ACADEMIC PROGRAMS section of the catalog.

## CRIMINAL JUSTICE COURSES

The department also offers graduate courses related specifically to the field of corrections and law enforcement. The courses in Criminal Justice include: Seminar in the Criminal Justice System 1590al, Seminar in Corrections (590b), Seminar in Probation and Parole ( 590 c ), Group Process $(590 \mathrm{~d}$ ), and Seminar in Socioogical Theory and the Criminal Justice System (590e). Independent studies are also availabie. Supportive courses in sociology and other fields should be chosen in consultation with faculty menvers.

## SOCIOLOGY

## 111 SOCIOLOGY

Basic principles in understanding social relationships; processes and structures existing in human relationships. I II

211 GROUP BEHAVIOR
The effects of social interaction upon individual behavior; collective attitudes and behavior as products of group experience; analysis of fashion, fads, crowds, mobs, publics, social movements; the significance of social control in society and the methods used by individuals and groups to control others. No prerequisite. I

MINORITIES
The history and culture of minority groups in American society, examined within the context of the interaction between minority-majority groups and population composition and movement of these groups. II

328 DEVIANT BEHAVIOR
The process of deviance and social control, examined with attention to specific forms of youth and adult behavior: juvenile delinquency, white-collar crime, drug addiction, homosexuality, mental illness and abortion. II

422 SOCIAL INSTITUTIONS
The origins and development of major institutions: economic, educational, familial, political and religious; inssitutional change, both evolutionary and revolutionary. II

423 SOCIOLOGICAL THOUGHT
Sociological thought from Comte to the present. I
425 THE FAMILY
The family as an institution; cross-cultural examination of family life, historical treatment of the Western family and a contemporary analysis of the American family in its developmental stages and in its relationship to other institutions. I

432 COMMUNITY AND STRATIFICATION
Rural-urban interpenetration; systems of social ranking, theories of stratification, power, prestige, culture and styles of life of various social classes; social mobility and its consequences for social structures. II

481 STATISTICAL METHODS
See Psychology 481. No prerequisite. I II
490 SEMINAR ( $1 / 4-1$ )
Prerequisite: Departmental consent.
491 INDEPENDENT STUDY ( $1 / 4-1$ )
Prerequisite: Departmental consent.
494 RESEARCH METHODS
Types of research and their basic methodology. II
590 GRADUATE SEMINAR ( $1 / 4-1$ )
590a - Seminar in Criminal Justice Systern, 590b - Seminar in Corrections, 590c - Seminar in Probation and Parole, 590d - Group Process, 590e - Seminar in Sociologv Theory and the Criminal Justice System. Prerequisite: Departmental Consent.

GRADUATE RESEARCH
Research chosen with the approval of the student's graduate committee. Prerequisite: Departmental consent.

## ANTHROPOLOGY

## 231 CULTURAL ANTHROPOLOGY

The prehistoric development of culture; a comparative study of contemporary smali-scale societies; describing, interpreting and explaining human behavior with reference to environmental settings, cultural traditions and outside (non-traditional) influences. May be applied toward sociology major requirements. No prerequisite. I

242 PHYSICAL ANTHROPOLOGY
Human biology in evolutionary perspective; evolutionary theory, fossil evidence of human development, the living non-human primates, present-day human as a biological creature. No prerequisite. II

341 ETHNOLOGY OF AMERICAN INDIANS
A comparative study of American Indian cultures at the time of European contact; the effects of white contact upon traditional American Indian cultures; Indians in contemporary North America. Prerequisite: 231 or consent. I

352 ETHNOLOGY OF AFRICA
The peoples of Africa south of the Sahara; native African cultural areas; the position of traditional cultures in the modern world. Prerequisite: $\mathbf{2 3 1}$ or consent. II

## 490 SEMINAR $(1 / 2-1)$

Prerequisite: departmental consent.
491 INDEPENDENT STUUY
Prerequisite: Departmental consent.
SOCIAL WELFARE
271 INJTRODUCTION TO SOCIAL WORK
The history, philosophical roots, practice methods and "settıngs" (i.e., adoptions, public schools, public assistance, corrections, psychiatric hospitals and clinics) of professional social work; opportunities for observational experiences. No prerequisite. I II

365 SOCIAL INTERVENTION
Processes of social change; social conditions which create the need for intervention, the dynamics of change in individuals and groups, function of social movements in effecting change; intervention methods, tactics and strategies. May be applied toward sociology major. I II

463 SOCIOLOGY OF SOCIAL WELFARE
How societies have defined social and personal needs and their responses and solutions; concepts of culture and social institutions; contemporary welfare structures. May be applied toward sociology major. I

472 SOCIAL WORK PRACTICE
The profession of social work examined with in 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. II

## 473 INTERVIEWING (1/2)

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. Open to juniors and seniors only. No prerequisite.

## 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 welfare field. Prerequisite: consent. I II

## 491 INDEPENDENT STUDY ( $1 / 4-1$ )

Prerequisite: departmental consent.


## the board of regents <br> February, 1972

## Ownership, Support, Government

The University is owned and operated by Pacific Lutheran University, Inc., a Washington corporation whose purpose is to maintain a Chr stian institution of higher le rning 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 I daho and Montana west of the Continental Divide. The annual meeting of the corpuration is held in conjunction with the annual convention of the North Pacific District.

Vuting inembers inc:lude the menibers of the Board of Regents, and the pastors and lay delegates of congregations in the constituent area The U'niversity receives regular financial support from the American Lutheran Church, the Pacific. Northwest Synod of the Lutheran Church in America and frort 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 Fresident, it charts a course tor the development of the total program of the University and strives to provide essential funds.

The University cornorations' constitution provides for not more than 30 regents elected for three-year terms Fifteen regents represent the North Pacitic and Rocky Mountain District of the American Lutheran Chuich, six are chosen by the Pacific Northwest Syrood of the Lutheran Church in America, three represent the PLU Alumni A.ssociation, and not mure than 6 regents-at-large are chosen by the Board of Regents. The President of the University, the Fiesident of the North Pacitic District (ALC), and the President of the Pacific Northwest Synod (LCA), are regerits by virtue of their position. The suludent body and the farulty have representatives who meet with the Board

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Dr. Eugene Wiegman, Pacific Lutheran University, Tacoma, Wash. 93447, PLU

## 1969-1972 T rm

Dr. Carl Bennett, 11121 S.E. 59th St., Bellevue, Wash. 98006, ALC
Dr. Kenn th Erickson, 885 Pioneer Court, Eugene, Ore. 37401, LCA
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Mrs. Jesse E. Herb rt, 3924 N.E. 34th Averiue, Portland, Ore. 97212, ALC
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## Lutheran Church in America, Pacific Northwest Synod

Dr. A.G. Fjellman, President, 5519 Phinney Ave. No., Seattle, Wash. 98103
Mr. Gordon J. Storaasii, Assistant to the President, 5519 Phinney Ave. No., Seattle, Wash. 98103
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 represertation on the University's Board of Regents, but does not share ownership of the institution.

## Representing Boards of College Education

Mr. Norman Fintel, Executive Director, Board of College Education, The American Lutheran Church Dr. Louis T. Almen, Executive Secretary, Board of College Education and Church Vocations, Lutheran Church in America


## left to ciotit:

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Clayton B. Peterson Vice president = Developments
A. Dean Btchanan

Vice President = Businessiand Finance
Richard D. Moe
Dean of Graduare and Summit Sudias

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Marvin Swenson Director, University Center
Robert Lundy Assistant Director of University Center and Director of Placement
Lynn Isaacson Bookstore Manager
Robert M. Torrens Director of Food Service
Mary Hegtvedt Assistant Dietitian

## faculty 71.72

Eugene W. Wiegman, 1969-, President, Ed. D., University of Kansas, 1962.
Keith AchepohI, 1969-, Director of Exhibitions, Associate Professor of Art, M.F.A., University of Iowa, 1960.
Seiichi Adachi, 1967-, Associate Professor of Psychology and Education, Director of Counsel ing and Testing Center, Ed. D., Columbia University, 1960.
Harry S. Adams, 1947-51, 1962- , Professor of Physics, Ph.D., University of Minnesota, 1962.
Angelia G. Alexander, 1971, Assistant Professor of Biology, M.A., University of California, Davis, 1966.
Charles D. Anderson, 1959-, Professor of Chemistry, Ph.D., Harvard, 1959.
George Evans Arbaugh, 1959-, Professor of Philosophy, Ph.D., University of Iowa, 1959.
D. Stuart Bancroft, 1971-, Assistant Professor of Business Administration, M.B.A., Arizona State University, 1965.

Kenneth E. Batker, 1966-, Associate Professor of Mathematics, Ed. D., Uriversity of Colorado, 1971
Myra J. Baughman, 1970-, Assistant Professor of Education, M.Ed., Western Vashington State College, 1969
Philip E. Beal, 1963-, Assistant Professor of Education, Dean of Men, Ph.D., University or Oregon, 1965.
Paul F. Benton, 1969 - Assistant Professor of English, Ph.D., Princetor University, 1970.
Lois M. Bergerson, 1970-, Assistant Professor of Nursing, M.N., University of Washington, 1952.
W. Harold Bexton, 1965-, Professor of Psychology, Ph.D., McGill University, 1953.

Grace Eleanor Blomquist, 1939-, Associate Professor of English, M. A., Syracuse University, 1939
Glenn L. Blubaugh, 1969-, Assistant Professor of Foreign Languages (German), M.A., University of Connecticut, 1963.
Randolph F. Bohannon, 1969-, Assistant Professor of Biology, Ph.D., Purdue LIniversity, 1969.
James E. Brink, 1970-, Assistant Professor of Mlathematics, Ph.D., Iowa State University, 1970.
Herman Joseph Broeker, 1966-, Ass:stant Professor of Physical Education, M.S., Washington State University, 1967.
Stanley Leonard Brue, 1971-Assistant Professor of Economics, Ph.D., University of Nebrask:a, 1971
G. Richard Capp, 1970-, Assistant Professor of Communication Arts, M.A., Baylor Universitv, 1967.

+ Samuel B.B. Carleton, 1969-, Instructor in Foreign Language (Greek), M. A., John Hopk.ins University, 1961
Roy E. Carlson, 1962-, Assistant Professor of Physica! Education, Coach of Wrestling, M.S., Wash ington State University, 1962.
Clara Carper, 1972-, Instructor in Nursing, M.N., University of Washington, 1959.
Davis W. Carvey, 1971-, Assistant Professor of Business Administration, M.B.A., Pacific Lutheran University, 1968.
Gary A. Chase, 1970-, Assistant Professor of Physical Education, Ni.S., Washington State University, 1964.
Kenneth E. Christopherson, 1958-, Associate Professor of Religion, B. Th., Luther Theological Seminary, 1950.
Francis B. Collinge, 1971-, Associate Professor of Potitical Science, Ph.D., University of Washington, 1964.
Dorothy Tollefson Cone, 1961-, Associate Professor of Nursing, M. Ed., University of Minnesota, 1959.
Margaret M. Coutu, 1969-, Instructor in Nursing, M.Ed., Coloraclo State University, 1966.
Richard W. Crockett, 1971 -, Assistant Professor of Political Science, A.M., University of Illinois, 1965.
* Date after name indicates beginning of term of service.
++On leave 1972-73

David P. Dahl, 1969-, A.A.G.O., Assistant Professor of Music. M.A., University of Washington, 1962.
Barbara Danielson, 1971-, Instructor in Physical Education, M.S., University of Washington, 1971.
Carrol Elvin De Bower, 1964-68; 1970-, Associate Professor of Education, Ed. D. , University of Nebraska, 1964.
Charles J. Dirksen, Jr., 1971-, Assistant Professor of Business Administration, M.B.A., Liniversity of Oregon, 1967.
Judd C. Doughty, 1962-,Assistant Professor of Communication Arts, Director of Eroadcast Services and Instructional Mater als Production, M. A., Pacific Lutheran University, 1964.
+Emmet E. Eklund, 1964-, Professor of Retigion, Ph.D., Boston University, 1964.
George R. Elwell, 1959-, Assistant Professor of Art, M.A., New York University, 1955.
Virginia Ann Eman, 1971-, Instructor in Communication Arts, M.A., Colorado State University, 1971.

+ Donald R. Farmer, 1955, Professor of Political Science, Ph.D., University of Minnesota, 1954. Regency Professorship, 1971-72.
Louise S. Faye, 1969-, Associate Professor of Foreign: Languages (Spanish), Ph. D., University of North Carolina, 1958.
+Robert S. Fisk, 1968-, Assistant Professor of Mathematics, M.S., University of Wyoming, 1962.
M. Josephine Fletcher, 1963-, AssociateProfessor of Education, M.S., DePaul University, 1963.

Arthur Gee, 1968-, Associate Professor of Biology, PhD. . Purdue University, 1969.
Ronald W. Genda, 1967-, Assistant Professor of Economics, M.A., Purdue University, 1967.
William P. Giddings, 1962-, Professor of Chemistry, Chairman of the Division of Natural Sciences, Ph.D., Harvard University, 1959.
Gordon O. Gilbertson, 1954-, Associate Professor of Music, M.M., Northwestern University, 1942.
William Gilbertson, 1968-, Asso ciate Professor of Sociology, M.S.W., University of Washington, 1956.
Ingrid Knutzen Gintz, 1971-, Instructor in Mathematics, B.A. Ed., Pacific Lutheran University, 1970.
Fern A. Gough, 1971-, Instructor in Nursing, M.S.N., University of Washington, 1961.
++Stewart D. Govig, 1958-60, 1961-. Associate Professor of Religion, Ph.D., New York University, 1966.
James A. Halseth, 1966-68, 1970-, Assistant Professor of History, M. A., Eastern New Mexico University, 19 ī3.
Vernon R. Hanson, 1970-, Assistant Professor of Sociology, M.A., University of Chicago, 1970.
Edward Harmic, 1971, Assistant Professor of Music, M.M., University of Arizona, 1969.
John O. Herzog, 1967-, Professor of Mathematics, Ph.D., University of Nebraska, 196.3.
W. Ronald Heyer, 1970-, Assistant Professor of Biology, Ph.D., University of Southern California, 1968.

Paul E. Hoseth, 1968-, Assistant Professor of Physical Educiation, M.S., South Dakota State University, 1967.
Thelma M. Hostetter, 1971, Assistant Professor of Nursing, M.S.N., University of Illinois, 1969.
Curtis E. Huber, 1964-, Professor of Philosophy, Ph.D., University of Wisconsin, 1962.
Laurence D. Huestis, 1961-, Associate Professor of Chemistry, Ph. D., University of Caiifornia, 1960.
William R. Hutcheon, Jr., 1967 - Associate Professor of Business Administration, D.B.A., University of Washington, 1969.
Clarence G. Jacobs, 1969-, Assistant Professor of Physics, Ph.D., University of Iowa, 1969.
+On leave 1971-72.
++ On leave 1972-73

Lois Elam Jacobson, 1966-, Assistant Professor of Nursing, M.S.N., University of Washington, 1969.
Jo Ann Jensen, 1967-, Associate Professor of Biology, Ph.D., Iowa State University, 1951.
Robert J. Jensen, 1968-, Assistant Professor of Economics, M.A., University of Nebrask.a, 1967.
Richard J. Jobst, 1967-, Assistant Professor of Sociology, M. A., University of California, 1967.
David W. Johnson, 1970-, Assistant Protessor of History, M. A., Stanford University, 1963.
Lucille Marguerite Johnson, 1953-, Professor of English, Ed.D., U'niversity of Montana, 1967.
William L. Johnson, 1969-, Associate Professor of Mathematics, Ph.D., University of California at Los Angeles, 1964.
Kenneth A. Johnston, 1964-, Professor of Education, Dean of the School of Education, Ed.D., Washington State University, 1964.
Richard P. Jones, 1969 - , Assistant Professor of Eriglish, M.A., M.F.A., University of Massachusetts, 1969.
Ronald D. Jorgenson, 1968-, Assistant Professor of Education, Ed.D., Ball State University, 1968.
Richard P. Jungkuntz, 1970-, Professor of Religion, Provost, Ph.D., University of Wisconsin, 1961.
Theodore Oscar Henry Karl, 1940-42, 1948-, Professor of Communication Arts, M.A., Gustavus Acolphus Coliege, 1936.
David T. Keyes, 1969-. Assistant Professor of Art, M. A., Ohio State University, 1966.
+Gundar Julian King, 1960-, Dean, School of Business Administration, Ph.D., Stanford University, 1963.
++Vivian C. King, 1969-, Assistant Professor of Music, M.M., University of Southern California, 1969
Lars E. Kittleson, 1956-, Associate Professor of Art, M.F.A., University of Southern California, 1955.
+Raymond A. Klopsch, 1953-, Associate Professor of English, Ph.D., University of Iltinois, 196 ?
Calvin H. Knapp, 1960-, Associate Professor of Music, M. S., Julliard School of Music, 1950.
++Jens W. Knudsen, 1957-, Professor of Biology, Ph.D. University of Southern California, 1957
David R. Knutson, 1969-, Assistant Professor of Religion, M.A., University of Chicaga Divinıty School, 1966.
Jerry D. Kracht, 1967-68, 1969-, Assistant Professor of Music, M.F.A., University of lowa, 1967.
Thomas E. Kruse, 1971-, Assistant Professor of Economics, Director of Institutional Research, M.A., University of Iowa, 1967.
John O. Larsgaard, 1970-, Assistant Professor of Psychology, Ph.D., University of Washington. 1971.
Dale A. Larson, 1971-, Instructor in English, B.A., Pacific Lutheran University, 1966.
140 Anthony J. Lauer, 1969-, Assistant Professor of Business Administration, M.B.A., Pacific Lutheran University, 1969
Penny Y. Leake, 1969-, Instructor in Nursing, B.S.N., Pacific Lutheran University, 1968.
Daniel R. Leasure, 1966-, Professor of Education, Vice President - Student Affairs, Ed.D., Pennsylvania State University, 1961.
Nona C. Lemieux, 1970-, Instructor in Nursing, B.S.N., Montana State University, 1966.
Harold J. Leraas, 1935-42, 1947-, Professor of Biology, Ph.D., D.D.S., University of Michigan, 1935, 1946.
Paul B. Liebelt, 1970-, Assistant Professor of Mathematics, M. A., University of Neibraska, 1957.
Brian E. Lowes, 1968-, Assistant Professor of Earth Sciences, M.S., Queens University, 1963.
Gene C. Lundgaard, 1958-- Assistant Professor of Physical Education, Coach of Basketball, M.S., University of Washington, 1964.
John L. Main, 1971-, Assistant Professor of Biology, Ph.D., University of Washington, 1970.
John A. Martilla, 1969-, Associate Professor of Business Administration, D.B.A., University of Oregon, 1969
Arthur David Martinson, 1966-, Associate Professor of History, Ph.D., Washington State University, 1966.
Marjorie Mathers, 1964-66; 1968-, Assistant Professor of Education, M.A., Central Washington State College, 1961.
Keith Wendell McMaster, 1967-, Assistant Professor of Business Administration, D.B.A., University of Oregon, 1970.
Barbara Menzel, 1971-, Instructor in Nursing, B.S.N., Vanderbilt University, 1970.
Paul T. Menzel, 1971-, Assistant Professor of Philosophy, Ph.D., Vanderbilt University, 1971.
Lawrence J. Meyer, 1969-, Professor of Music, Ed.D., Colorado State College, 1964.
N. Christian Meyer, Assistant Professor of Mathematics, Ph.D., University of Oregon, 1970.

Christine W. Miller, 1971-, Instructor in Nursing, B.S.N., Pacific Lutheran University, 1970.
Marien Miller, 1970-. Associate Professor of Economics, Ph.D., University of Minnesota, 1967
Gary L. Minetti, 1970-, Assistant Professor of Education, M.A., Pacific Lutheran University, 1967.
Richard D. Moe, 1965-, Professor of Education, Dean of Graduate and Summer Studies; Director, School of Fine Arts, Ed.D., University of Colorado, 1962.
Katharine E.Monroe, 1967-, Associate Professor of Foreign Languages (French), M.A., Middlebury College, French 1942, English 1951.
Gunnulf Myrbo, 1970-, Assistant Professor of Philosophy, B.A., University of British Columb ia, 1962.
++Alice J. Napjus, 1963-, Assistant Professor of Education, M. A., University of Washington, 1965.
Charles T. Nelson, 1967-, Assistant Professor of Education, Registrar, M.A., Adams State College, Colorado, 1964.


Neale E. Nelson, 1970-, Assistant Professor of Sociology, Ph.D., University of Utah, 1970
Burton L. Nesset, 1967-, Associate Professor of Chemistry, Ph.D., Purdue University, 1962.
Milton Luther Nesvig, 1947-51, 1953-, Assistant Professor of English; Assistant to the President for Church Relations and Publications, University of Minnesota, 1947.
Jesse D. Nolph, 1968-, Assistant Professor of Psychology, Ph.D., Cornell University, 1971.
Eric Nordholm, 1955-, Associate Professor of Communication Arts, B.F.A., Art Institute of Chicago, 1951.
Philip A. Nordquis, 1963-, Professor of History, Ph.D., University of Washington, 1964.
Sherman B. Nornes, 1959-51, 1965-, Associate Professor of Physics, Ph.D.. Wash ington State University, 1965.
W. Dwight Oberholtzer, 1969 - , Associate Professor of Sociology, PhD., Graduate Theological Union, Berkeley, California, 1969
+Sara A. Officer, 1967-, Assistant Professor of Physical Education, M.S., Indiana University, 1965.
Rober C. Olsen, 1947-, Professor of Chemistry, Ph.D., Michigan State University, 1936.
David M. Olson, 1968-, Professor of Physical Education, Director of the School of Physical Education, Athletic Director, Ph.D., University of Iowa, 1966.
Franklin G. Olson, 1971-, Assistant Professor of Education, Ed.D., University of Nebraska, 1971.
Linda N. Olson, 1967-, Assistant Professor of Nursing, M.N., University of Washington, 1964.
Florence A. Orvik, 1967-, Assistant Professor of Education, M.A., Eastern Washington State College, 1961.
Bur on T. Ostenson, 1947-, Professor of Biology and Earth Sciences, Ph.D., University of Michigan, 1947.
William E. Parker, 1970- Assistant Professor of Communication Arts, M.S., Southern Illinois University, 1968.
Arne K. Pederson, 1956-, Associate Professor of Education, Director of Teacher Corps, M. A., Pacific Lutheran University, 1956.
John E. Pe ersen, 1967-, Assosiate Professor of Religion, Ph.D., New York University, 1970.
Charles Ar hur Peterson, 1959-Professor of Business Administration, Ph.D., University of Minnesota, 1956.
+Gary D. Peterson, 1967-, Assistant Professor of Mathematics, M.S., Western Washington State College, 1967.
++Wilma E. Peterson, 1965-, Assistant Professor of Nursing, M.S., Boston University, 1953.
+On leave, 1971-72.
++On leave 1972-73


Rodney W. Petty, 1969-,Associate Professor of Education, D.Ed., University of Oregon, 1964.
Carolyn M. Phillips, 1968-, Assistant Professor of Physicai Education, M.S . University of Washington, 1964.
Walter E. Pilgrim, 1971-, Assistant Professor of Religion, Th.D., Princeton Theological Seminary, 1971
B. Jean Ramey, 1971 - , Instructor in Nursing, E.S., College of Nursing and Health, Cincinnati, 1969.

Paul M. Reigstad, 1947-48, 1958-, Professor of English, Chairman of the Division of Humanities, Ph.D., University of N!ew Mexico, 1958.
142 David P. Robbins, 1969-, Assistant Professor of Music, B.M., University of Michigan, 1968.
George A. St. John Robinson, 1970-, Instructor in Foreign Languages (Span ish), M.A., Louisiana State University, 1970.
+George Roskos, 1950-- Associate Professor of Art, M.A., University of Iowa, 1950.
Joan G. Royce, 1970- , !nstructor in Nursing, M.S., University of Pennsylvania, 1960.
William B. Sare, 1968-, Assistant Professor of Music, M.M., Indiana University, 1969.
William H. Scharnweber, 1970-, Instructor in History, M.A., Washington State Uriiversity, 1968.
Johannes August Schiller, 1958-, Professor of Sociology, Chairman of the Division of Social Sciences, Ph.D., University of Washingtor, 1967.

+Walter Charles Schnackenberg, 1942-44, 1952-, Professor of History, Ph.D., Washington State University, 1950.
Ernst C. Schwidder, 1967-, Associate Professor of Art, M.F.A., University of Washington, 1955.
S. Erving Severtson, 1966-- Associate Professor of Psychology, Ph. D., University of Utah, 1966.

Maurice H. Skones, 1964--, Professor of Music, Director of Chorai Music, M.M.Ed., Nontana State University, 1957.
Ruth M. Sorenson, 1968-, Assistant Frofessor of Biology, M. A., University of Colorado, 1967.
Carl D. Spangler, 1961-62, 1963-, Assistant Professor of Foreign Languages (French), M.A., Pennsylvaniạ State University, 1961.
$=$ Lynn S. Stein, 1961-, Professor of Education, Ed.[., Montana State University, 1961.
Vernon L. Stintzi, 1964 - , Associate Professor of Business Adriinistration, D.B.A., University of Washington, 1970.
Doris G. Stucke, 1967 -, ProfessDi of Nursing; Director of the School of Nursing, Ed.D., Teachers College, Columb ia University, 1967
Valerie L. Sullivan, 1972-, Instructor in Health and P.E., B.S., University of Wisconsin, 1961.
Duane Swank, 1970-, Assistant Professor of Chernistry, Ph D., Montaria State University, 1969.
Rodney Swenson, 1968-, Associate Professor of Foreign Languages (German), Ph.D., University of Minnesota, 1967.
Kwong-Tin Tang, 1967-, Professor of Physics, Ph.D , Columbia University, 1965.
Frederick L. Tobiason, 1966-, Associate Professor of Chemistry, Ph.D., Michigan State University, 1965.
Walt Tomsic, 1970-, Assistant Professor of Art and University Graphics Coordinator, M.F.A., University of Colorado, 1967.
Audun Trygge Toven, 1967-, Assistant Professor of Foreign Languages (Norwegian), Ni.A., University of Washington, 1967.
Paul Wolfgang Ulbricht, 1967-, Associate Professor of Political Science, Ph.D., University of Washington, 1965.
Daniel E. Van Tassel, 1970-, Assistant Professor of English, Ph.D., University of I owa, 1970.
David Lee Vinje, 1970-, Assistant Professor of Economics, Ph.D., University of Wisconsin, 1970.
George F. Walter, 1970-, Instructor in Sociology (Anthropology) M. A., Onio State University, 1970.
W. Grant Watkinson, 1970-, Assistant Professor of Business Administration, D.B.A., University of Uregon, 1971.

Mary M. Webster, 1970-, Instructor in Psychology, M A., University of California, 1965.
Paul M. Webster, i969-, Instructor in Foreign Languages (German), M.A., University of California, 1967.
Forrest E. Westering, 1972-, Associate Professor of Physical Education, Coach of Football, Mi.S., Colorado State College, 1960.
Margaret D. Wickstrom, 1951-, Assistant Professor of Religion, Dean of Wornen, M Pi.E., The Biblical Serninary of New Yort, 1951
E. Jane Williamson, 1964-, Professor of Education, Ed.. ., Colorado State College, 1959.

Margaret I. Woehrle, 1971-, Instructor in Nursing, M.S.N., University of Washington, 1970.
Jefferson Yuan-Sheng Yang, 1970-, Assistant Professor of Engineering, Ph.D , University of Utah, 1970
++Dwight Judson Zulauf, 1949-53, 1959-. Professor of Business Ad ministration, Ph.D., University of Mirınesota, 1965.

+ On leave, 1971-72.
++Ori leave, 1972-73.
$==$ Specia! 2 -year leave.


## FACULTV ASSOCIATES

Lawrence Griggs, 1970-, Coordinator of Minority Affairs; B.A. Pacific Lutheran University, 1969.
Robert K. Menzel, 1969-, Director of Center for Human Organizatior, in a Changing Environment, (CHOICE), M.Div., Concordia Seminary, St. Louis, 1957

## CONSULTING PROFESSORS

Leonard M. Guss, 1971 -, President of Leonard Guss Associates, Inc., Ph.D. Ohio State University, 1960.
Joseph E. Nolan, 1971-, Retired senior vice-president/administration of Weyerhaeuser Company, Ph.D. Harvard Law School, 1932.

## LECTURERS

Clara Bantsari, Music, B.A., San Jose State 1965. Cheryl Barley, Physical Education.
Michael L. Benson, Physical Education, B.A., Pacific Lutheran University, 1969.
Richard Bergeson, Music, B.A., University of Washington, 1961
Henry J. Bertness, Education, Ph.D., University of Minnesota, 1955.
Eugene H. Breckenridge, Education; D.H.L., Whitworth, 1969
J. Arnold Bricker, Education, M.P.A., University of Washington, 1962.

John Bright, Sociology, L.L.B., University of Washington, 1967.
Carol Capp, Communication Arts, M.A., Baylor University, 1968.
Elaine Carleton, Latin, M.A., University of Texas, 1969.
144 David Christian, Communication Arts, B.A. Western Washington State College, 1960.
Marie Churney, Education, Ed.D., Uriiversity of Florida, 1970.
Irene O. Creso, Biology, M.'., University of Puget Sound, 1947.
Russell Crockett, Music, M.M., University of Idaho, 1966.
Nadine Dryden, Music.
Wayne H. Ehlers, Educat ion, M.L., University of Denver, 1967.
John G. Eyres, Communicat ion Arts, M.A., Central Washington State College, 1959.
Grant O. Gilbert, Psychology, B.A., Pacific Lutheran University, 1969.
Harold F. Gray, Education, M.A., University of Puget Sound, 1950.
Robert Green, Sociology, M.S.W., University of Utah, 1958.
Marlis Hanson, Education, B.S., University of Minnesota, 1945.
Theresa E. Hemmen, Nursing, M.A., Pacific Lutheran University, 1971.
Margaret A. Herzog, Mathernatics, M.A., University of Nebraska, 1959.
Leonard W. Holden, Education, Ed.D., Stanford University, 1959.
Irene Hopp, Music, B.A., University of Puget Sound, 1947.
Ruth Lynch Jeffries, Teacher Corps, M.S.P.H., North Carolina College at Durham, 1949.
Eunice Johnson, Sociology, B.A., Alabama A and M, 1952.
Harold E. Johnston, Education, M.S.Ed., Black Hills State, 1964.
Jack Jorgenson, Business Administration, M.B.A., Pacific Lutheran University, 1971.
Margaret A. Keblbek, Education, M.A., Central Washington College, 1956.
James Kittilsby, Health and P.E., B.A., Pacific Lutheran University, 1960.
Sandra Knapp, Music, M.S.,Juilliard School of Music.
Theodore Knightlinger, Communication Arts.
Archie Kovanen, Business Administration, B.A., University of Minnesota, 1959.
Marjorie J. Lepley, Music, M.M., University of Washirigton, 1970.
David W. Locke, Music, M.M., Northwestern University, 1967.

Lawrence G. Mathre, Religion, M.A., Phillips Uriversity, 1962.
Larry Metcalf, Art, M.F.A., University of Wash ington, 1967.
Erling O. Mork, Political Science, B.S., Washington State University, 1957.
Frederick L. Newnham, Music, Royal Academy of Music, London, 1962
Athyleen F. Nicholson, Business Admınistration, M. E., University of Puget Sound, 1963.
Nan G. Nokleberg, Education, B.A., University of Washington, 1953.
Carmen Nordlund, Communication Arts, M.A. Ed., Pacific Lutheran University, 1967.
Beverly J. Payne, French, M.A., University of Washington, 1963.
Duare Richardson, Education, Ed.D.. Washington State University, 1969.
Judith Smith, Education, B.A.Ed., Pacific L.utheran University, 1964.
Louis J. Souza, Physical Education, M.S., Springfieid College.
Donald Sundquist, Music, M.E., Western Washington State College, 1964.
Jon Thieman, Physical Education, B.A., Wartburg College, 1968.
Mary Helen Thompson, Music, B.M., Oberlin College, 1940.
Ann K. Tremaine, Music, B.M., University of Oregon, 1951.
Ray Warren, Education, M. A., University of Washington, 1937.
Wera Wilhelm, German, M.A., University of Washington, 1968.
Barbara Williams, English, M.A., University of Nebraska, 1963.
Layne Winklebleck, Sociology, M.S.W.., University of Denver, 1968.

## LIBRARY

Frank Hamilton Haley, 1951-, Librarian, A.B.L.S., University of Washington, 1950.
Miriam Ruth Beckman, 1964-, Reference Librarian, M. Libr., University of Washington, 1964

## TEACHER CORPS TEAM LEADERS

Daniel Markly, B.A. Ed., Western Washington State College, 1968.
Kathleen Carter, B.S., Johnson C. Smith University, 1950.
Richard D. Disney, B.A.Ed., Eastern Washington State College, 1958.
David A. Gabrielson, B.A., Pacific Lutheran University, 1960
Constance S. Lassiter, M.Ed., Florida A and M University, 1968.
Teresa M. Tuel, M.A.Ed., University of Puget Sound, 1957

## EMERITI

Elvin Martin Akre, 1937, Associate Professor Emeritus of History, 1970
Irene O. Creso, 1955-56, 1968, Associate Professor Emeritus of Biology, 1971.
J.E. Danielson, 1960, Director Emeritus of Admissions, 1969.

Arnold Jasper Hagen, 1955, Professor Erneritus of Education, 1971
Philip Enoch Hauge, 1920, Professor Emeritus of Education, 1968.
Olaf Melvin JordahI, 1940, Professor Emeritus of Physics, 1969.
Erich Carl Knorr, 1949, Professor Emeritus of Sociology, 1970
Ann Elise Knudson, 1946, Associate Professor Emeritus of English, 1970.
146 Ottilie Elise Little, 1946-51, 1952, Professor Emer itus of German, 1966.
Gunnar Johannes Malmin, 1937, Professor Emeritus of Music, Latin and Norwegian, 1969.
Eline Kraabel Morken, 1953, Associate Professor Emeritus of Nursing, 1967.
Robert A.L. Mortvedt, 1962, President Emeritus, 1969.
Frederick Laurence Newnham, 1950, Professor Emeritus of Music, 1969.
Anders William Ramstad, 1925, Professor Emeritus of Chemistry, 1961.
Herbert Robert Ranson, 1940, Professor Emeritus of English, 1968.
Kelmer Nelson Roe, 1947, Associate Professor Emeritus of Religion, Greek, 1967.
Josef Emil Running, 1948, Assistant Professor Emeritus of Mathematics, 1961.
Vernon Alfred Utzinger, 1950-53, 1957, Professor Emer itus of Speech, 1969.
Paul G. Vigness, 1956, Associate Professor Emeritus of Religion and History, 1965.

The President is an ex-officio member of all committees.

```
ADMISSIONS: }3\mathrm{ faculty and 2 students, 3 advisory members.
ARTIST SERIES: 3 faculty, 3 advisory members.
ATHLETICS: }3\mathrm{ facuity, }3\mathrm{ advisory members.
COMMITTEE ON COMMITTEES: }3\mathrm{ faculty.
EDUCATIONAL POLICIES: }9\mathrm{ faculty, }1\mathrm{ advisory and 2 student advisory members.
FACULTY WELFARE: }3\mathrm{ faculty, 1 advisory
FINANCIAL ASSISTANCE: 3 faculty, 3 advisory and 2 student advisory members.
COMMITTEE TO PROMOTE GRADUATE STUDY: }3\mathrm{ faculty, }3\mathrm{ advisory members.
INTERIM COMMITTEE : }4\mathrm{ faculty and 2 students.
LECTURE AND CONVOCATION: }3\mathrm{ faculty and 3 students, 3 advisory members.
LIBRARY: }3\mathrm{ faculty, 3 advisory mernbers.
PUBLICATIONS: }3\mathrm{ faculty, 2 advisory.
RANK AND TENURE: }7\mathrm{ faculty (4 tenured, 3 nontenured), 1 advisory and 2 student advisory members.
RELIGIOUS ACTIVITIES: }3\mathrm{ faculty, 2 advisory.
SOCIAL: 3 faculty and 2 students, 1 advisory.
STANDARDS: }3\mathrm{ faculty and 3 students.
STUDENT ACADEMIC STATUS: }5\mathrm{ faculty, }5\mathrm{ advisory.
STUDENT ACTIVITIES AND WELFARE: }3\mathrm{ faculty and 3 students, }5\mathrm{ ex-officio members.
STUDENT PUBLICATIONS: }3\mathrm{ faculty and 4 students, 7 advisory.
ALL-UNIVERSITY COMMISSION: 5 faculty, 1 advisory, 6 students, 2 administrative and 4 staff members.
UNIVERSITY CENTER BOARD: Director, University Center, 4 students, 2 faculty, 1 alumni.

\section*{campus guide}


Pacific Lutheran University is located in Tacoma Washington, a metropolitan area with a population of over 250,000 , on the southern reaches of Puget Sound. Railways and highways make the University easily accessible Seattle-Tacoma International Airport is a thirty-minute drive from the University on Interstate 5. Tacoma city buses run regularly to and from downtown and stop in front of the campus.

The campus, which is seven miles south of the city center, is situated in Parkland, one of Tacoma's unincorporated suburbs. The main campus is bouncied by South 121 st Street on the north and South 127th Street on the south by Park Avenue on the east, and South "I" Street on the west.

Most of the University buildings are located on what is termed the "upper campus". "Lower campus", below a slight hill to the south, is the setting for the athletic complex, residence halls for rnen, married student housing and the golf course. The University Center, located on the hillside, is accessible from upper or lower campus, tying the two areas together


\begin{tabular}{|c|c|c|c|}
\hline \begin{tabular}{l}
Lutheran \\
The ALC \\
LCA \\
LC-MS \\
Unclassified \\
Total Lutherans \\
Other Denominations Presbyterian Methodist Catholic Episcopalian Baptist \\
Congregational Other Affiliations No affiliation Total GRAND TOTAL
\end{tabular} & \[
\begin{aligned}
& 1,097 \\
& 296 \\
& 150 \\
& 29 \\
& 1,572 \\
& \\
& 154 \\
& 125 \\
& 138 \\
& 68 \\
& 103 \\
& 23 \\
& 195 \\
& 660 \\
& 1,466 \\
& 3,038
\end{aligned}
\] & & \\
\hline ENROLLMENT & & & \\
\hline 1970-71 & Men & Women & Total \\
\hline Graduates & 362 & 259 & 621 \\
\hline Seniors & 244 & 270 & 514 \\
\hline Juniors & 224 & 207 & 431 \\
\hline Sophomores & 239 & 336 & 575 \\
\hline Freshmen & 311 & 452 & 763 \\
\hline Specials & 44 & 43 & 87 \\
\hline Total Regular School Year & 1,424 & 1,567 & 2,991 \\
\hline Summer Session Enrollment, 1970 & 632 & 798 & 1,430 \\
\hline Net Total & 2,043 & 2,334 & 4,421 \\
\hline FALL 1971 & Men & Women & Total \\
\hline Graduates & 329 & 196 & 525 \\
\hline Seniors & 258 & 264 & 522 \\
\hline Juniors & 277 & 275 & 552 \\
\hline Sophomores & 270 & 355 & 625 \\
\hline Freshmen & 314 & 450 & 764 \\
\hline Specials & 27 & 23 & 50 \\
\hline Total Fall 1971 & 1.475 & 1,563 & 3,038 \\
\hline
\end{tabular}
\begin{tabular}{rl} 
Washington & 2,071 \\
Oregon & 268 \\
California & 267 \\
Montana & 98 \\
Alaska & 47 \\
Idaho & 33 \\
Minnesota & 34 \\
Hawaii & 24 \\
Colorado & 17 \\
North Dakota & 14 \\
Illinois & 17 \\
Michigan & 5 \\
Texas & 6 \\
Utah & 8 \\
Arizona & 8 \\
New Jersey & 7 \\
New Mexico & 4 \\
Ohio & 3 \\
South Dakota & 4 \\
Virginia & 4 \\
Florida & 3 \\
Iowa & 5 \\
Louisiana & 1 \\
New York & 4 \\
Wisconsin & 3 \\
Indiana & 2 \\
Kansas & 2 \\
Massachusetts & 2 \\
Oklahoma & 2 \\
Pennsylvania & 3 \\
Wyoming & 2 \\
Connecticut & 1 \\
District of Col. & 2 \\
Maryland & 2 \\
Missouri & 1 \\
Nebraska & 2 \\
Nevada & 1 \\
Georgia & 1 \\
South Carolina & 1 \\
Foreign & 59 \\
Total & 3,038 \\
& \\
\hline
\end{tabular}

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\section*{Accreditation and Institutional Memberships}

Pacific Lutheran University is fully accredited by the Northwest Association of Secoridary and Higher Schools as a four year institution of higher education and by the Washington State Board of Education for teacher education. The University is accredited by the National Council for the Accreditation of Teacher Education for the preparation of elernentary and secondary teachers, principals and guidance counselors with the Master's degree as the highest degree approved. The School of Nursing is accredited by the National League for Nursing. The University is approved by the American Association of University Women and by the American Chernical Society. The School of Business is accredited by the Arnerican Association of Collegiate Schools of Business.

The University is a mernber of the Association of Arnerican Colleges, the American Council on Education, the National Lutheran Educational Conterence, the Northwest Association of Private Colleges and Universities, the Independent Colleges of Washington, Incorporated, and Washington Friends of Higher Education.
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section I copy/editing roger gruss, associate publications editor graph ic design walt tomsic, department of art photography: ken dunmire, paul kusche, plu photo services

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printing: craftsmen press, seattle```


[^0]:    *Denotes laboratorv sessions.

