# College of Arts \& Sciences 2002-2003 

## Contact Information

W RITE<br>Office of Admissions<br>Pacific University 2043 College Way Forest Grove, OR 97116

CALL

503-352-2900
or
toll-free 800-933-9308

VISIT<br>www.pacificu.edu

E-MAIL

admissions@pacificu.edu

Cover photos © Sven Lundberg
Pacific University has made every effort to ensure that the information is accurate at the time of publication, but reserves the right to change the provisions in this catalog. This includes the right to discontinue courses, change requirements for admission and graduation, adjust fees or change any other regulation or policy in this catalog. The information and policies in this catalog are for informational purposes only and do not constitute an agreement or contract between Pacific University and students, staff, or faculty.

## NOTICE OF NONDISCRIMINATION POLICY

It is the policy of Pacific University not to discriminate on the basis of sex, physical or mental disability, race, color, national origin, sexual orientation, age, religious preference or disabled veteran or Vietnam Era status in admission and access to, or treatment in employment, educational programs or activities as required by Title IX of the Education Amendments of 1972, section 504 of the Rehabilitation Act of 1973, Title VII of the Civil Rights Act of 1964, the Age Discrimination Act, the Americans with Disabilities Act of 1990, or any other classification protected under state or federal law, or city ordinance. Questions or complaints may be directed to the Vice President of Academic Affairs or Provost, 2043 College Way, Forest Grove, Oregon 97116, 503-352-2215.

## Accreditation \& Memberships

## ACCREDITATIONS

Pacific University is accredited by the Commission on Colleges of the Northwest Association of Schools and Colleges. In addition, selected programs have received specialized accreditation from:

## Optometry

Accreditation Council on Optometric Education
Music
National Association of Schools of Music
Physical Therapy
Commission on Accreditation in Physical Therapy Education
Occupational Therapy
Accreditation Council for Occupational Therapy Education of the American Occupational Therapy Association, Inc.
Professional Psychology
Clinical (Psy.D.): Committee on
Accreditation of the American
Psychological Association
Counseling (M.A.): Oregon Board of Counselors and Therapists meeting educational standards for becoming a Licensed Professional Counselor

## Education

Teacher Standards and Practices
Commission of the State of Oregon
Physician Assistant Studies
Accreditation Review Committee on Education for the Physician Assistant, Inc.

## MEM BERSHIPS

Pacific is a member of the National Association of Independent Colleges and Universities, the Oregon Independent Colleges Foundation, the Oregon Independent Colleges Association, the American Association of University Women, the Council for Higher Education of the United Church of Christ, the College ScholarshipService, the Northwest Conference of Independent Colleges, the National Collegiate Athletics Association and the Association of Independent Liberal Arts Colleges for Teacher Education.

## University Officers \& Trustees

Senior Officers of Administration<br>Faith Gabelnick<br>President<br>Larry R. Clausen<br>Vice President for Academic Affairs<br>Len Hightower<br>Vice President for Enrollment Management<br>Irene M. Moszer<br>Vice President for Finance and Administration<br>Timothy O'Malley<br>Vice President for University Relations<br>Daiva A. Banaitis<br>Program Director, School of Physical Therapy<br>Thomas D. Beck<br>Dean, College of Arts and Sciences<br>Leland W. Carr<br>Dean, College of Optometry<br>Lee M. Colaw<br>Chief Information Officer<br>Peggy Hanson<br>Interim Program Director,<br>School of Occupational Therapy<br>Drew Harrington<br>University Librarian<br>Michel Hersen<br>Dean, School of Professional Psychology<br>Willard M. Kniep<br>Dean, School of Education<br>Eva C. Krebs<br>Dean of Students<br>Christine F. Legler<br>Program Director,<br>School of Physician Assistant Studies

## Senior Officers of the Board of Trustees

William H. Stoller
Chairman of the Board
Steven R. Rogel
Vice Chairman of the Board
Tim Schauermann
Secretary

## Pacific University Board of Trustees

Ernest "Wayne" Atteberry
James H. Berglund OD '60
George W. Burlingham
Mindy Cameron '65
Eleanore A. Chong
Mary Fehrs
Faith Gabelnick
Krys Glover
Elizabeth Goldblatt
Ronald L. Greenman
Lawrence W. Harris III
Mark Hollinger
Yvonne Katz
Eng Lock Khoo
John G. King
Eric Knutson '66, OD '67
Michael Leidecker
Kenneth Lewis
John Medeiros
John R. Meyer '49
Paul V. Phillips '78
Steven R. Rogel
Dwight A. Sangrey
Tim Schauermann '66
Bryce Seidl
Sherry H. Smith '64
William H. Stoller '74
Douglas C. Strain
Sheila Manus Vortman '67

## Senior Trustees

Victor Atiyeh
Steven C. Boone '73
Doris Burlingham
Robert E. Epler
Max K. Evans '58
Ron Fraedrick
Robert E. Gillis '61
Tom F. Hartung
Thomas J. Holce '58
Elizabeth H. Johnson
Roy Lieuallen '40
James G. Reynolds
Thomas J. Sloan
Leslie F. Stevens
Loran L. Stewart
Jean B. Tate '52
Benjamin R. Whiteley
Dean M. Wilcox '50
Honorary Trustees
Roy B. Clunes, OD '39
Louis B. Perry
Ralph H. Shumm
Newton K. Wesley, OD '39

## Table of Contents

Accreditation and Memberships ..... 3
University Officers and Trustees ..... 4
Introduction to the University ..... 8
Entering the University ..... 13
Tuition and Fees ..... 15
Financial Aid ..... 19
Degree Requirements ..... 22
Academic Programs ..... 26
Anthropology, Sociology and ..... 152
French ..... 162
Applied Science ..... 27
German ..... 163
Art ..... 28
Geology (Earth Sciences) ..... 54
Astronomy (Earth Sciences) ..... 54
Athletics ..... 33
Bioinformatics ..... 35
Biology ..... 36
Business and Economics43Chemistry50
Chinese Studies ..... 89
Computer Science ..... 96
Communications, Media Arts and ..... 103Creative Writing (English)60
Dance ..... 160
Earth Sciences54
Economics, Business and43
Education ..... 54
Engineering ..... 58English
Environmental Studies Program66Exercise Science72
Feminist Studies ..... 78
Film Production ..... 104
History ..... 80
Humanities ..... 86
Integrated Media ..... 104
International Programs ..... 88
International Studies ..... 93
Japanese ..... 162
Journalism ..... 104
Mathematics and Computer Science ..... 96
Media Arts and Communications ..... 103
Music ..... 111
Occupational Therapy ..... 121
Optometry and Visual Science ..... 122
Peace and Conflict Studies ..... 125
Philosophy ..... 127
Physical Therapy ..... 131
Physician Assistant Studies ..... 134
Physics ..... 136
Politics and Government ..... 141
Pre-Medical Studies ..... 146
Psychology ..... 147
Social Work ..... 153
Sociology and Anthropology ..... 152
Spanish ..... 162
Sports Medicine ..... 74
Study Abroad ..... 88
Academic Policies and Procedures ..... 171
Academic Conduct Policies ..... 178
University Services and Resources ..... 182
Faculty of the College of Arts \& Sciences ..... 192
Faculty Emeriti ..... 197
Telephone Directory ..... 199
Academic Calendar ..... 200
Map ..... 202
Index ..... 204

## Introduction

## MISSION OF PACIFIC UNIVERSITY

The mission of Pacific University is to provide an education of exceptional quality in liberal arts and sciences, and in selected professional programs to prepare students for service to a changing community, nation and world.

In addition to our mission, Pacific University values

- A community of faculty, staff, and students dedicated to high academic standards, integrity, lifelong learning, and service to the community and the integration of liberal arts and professional education;
- A community that embraces creativity, flexibility and change and that honors diversity of view points;
- A community that respects our traditions, our environment and our relationships beyond the campus.


## PACIFIC: AN OVERVIEW

Pacific University, founded in 1849, is an independent, comprehensive university recognized nationally for its exemplary programs and as one of the best values in higher education west of the Mississippi. With an enrollment of more than 2,200, Pacific is pioneering new developments in the delivery of higher education. We are creating a dynamic, new learning community that will prepare our students for competitive and compassionate professional lives.
Pacific's curriculum is a distinct model of education that links theory with practice. Our undergraduate liberal arts programs connect classroom education with professional preparation through internships, practica and research programs. Our graduate
programs in education and the health and human service professions emphasize the principles of liberal learning. Pacific's history is richly steeped in a tradition of community service. To build upon our legacy, we have identified the above mission and values as those we fully embrace in all of our programs and initiatives.
Pacific University offers exceptional academic value. Independent analyses of the university's educational quality, cost and the ready availability of financial aid have determined that Pacific is among the best educational values in the nation. Emphasizing quality, keeping costs in check and offering additional opportunities for financial assistance are top priorities.
Pacific provides a caring community where friendships are a priority and faculty are committed to helping students succeed. The university is small enough that opportunities abound for students to get involved, but big enough that students working together can have a meaningful impact.
The 55-acre Forest Grove campus contains 18 major buildings in a picturesque setting of green lawns and tall shade trees. Architecture at Pacific is a pleasant blend of the old and new, represented at one end of the spectrum by historic Old College Hall (1850), the first permanent structure of Pacific University, and at the other by the University's new science, music and professional buildings. It also includes the 90,000 square foot Pacific Athletic Center and the Tom Reynolds Soccer Field.
In addition to its Forest Grove campus, the University has a satellite campus located in Eugene that serves the needs of the School of Education, and operates facilities in Portland that support the academic and clinical programs of the College of Optometry and the School of Professional Psychology.

## A HISTORY OF PACIFIC UNIVERSITY

Pacific University was established by the Legislative Assembly of the Territory of Oregon in 1849, but traces its beginnings to an orphan school established in 1842 by the Reverend and Mrs. Harvey Clarke, Congregational missionaries who came to the Northwest from Chester, Vermont. With the help of Alvin T. Smith, they built a log cabin for a school on a the corner of what are now 15th and Elm Streets in Forest Grove, Oregon.
In 1847, Mrs. Tabitha Moffett Brown reached Oregon by wagon train and visited the Clarkes. She became interested in their work and assisted in teaching the children. Inspired by her assistance, Rev. Clarke and Mr. Smith made arrangements for the children to be taught in a log church that they built on what is now the campus of Pacific University.
In the summer of 1848, Reverend George H. Atkinson arrived in Oregon. Reverend Atkinson was commissioned by the Home Missionary Society of Boston to "found an academy that shall grow into a college." Reverend Clarke and several others drew up plans for the new institution.
On September 26, 1849, the Territorial Legislature granted a charter establishing Tuality Academy, and in 1854, a new charter was issued granting full privileges to "Tualatin Academy and Pacific University." Thirty acres of land were donated as a building site by Reverend Clarke and Elkanah Walker. Dr. Atkinson secured The Reverend Sidney Harper Marsh of Union Theological Seminary of New York to serve as the first president of the new school. Mr. Marsh was the son of the president of the University of Vermont, and grandson of the first president of Dartmouth College. Sidney Harper Marsh served as president from 1853 to 1879.
Pacific University has evolved into a comprehensive, independent University that provides both undergraduate and professional graduate programs. At the heart of the University is the College of Arts and Sciences, offering a broad curriculum in the liberal arts and sciences. Surrounding the College are the School of Education and a select cluster of graduate schools in the health and human service professions, including Occupational Therapy, Optometry, Physical Therapy, Physician Assistant Studies, and Professional Psychology.

## COLLEGE OF ARTS AND SCIENCES

## Mission

The College of Arts and Sciences, through effective teaching built on close faculty/student relationships, provides, in a residential setting, a broad liberal arts education with a strong emphasis on service and application of knowledge that produces graduates with the intellectual capabilities and personal qualities that enable them to participate in rewarding careers and to contribute to their communities.

Pacific's base in the liberal arts is clearly reflected in the more than 25 different programs in the College of Arts and Sciences. This College is the largest unit and the core of the University. As such, it provides a broad spectrum of opportunities to match individual interests and career plans.
The College of Arts and Sciences has a curriculum which affirms in practice that a broad educational experience is both an end in itself and a means to set personal and professional directions. Within the divisions of Arts, Humanities, Natural Sciences, and Social Sciences, the College offers a carefully constructed range of courses with breadth and depth in basic fields. Student studies are supported by a strong advising program, which covers academic development through career counseling and placement. The College is essentially residential, which provides the kind of living and learning experiences that characterizes the better, smaller, independent liberal arts colleges.
In a world which increasingly asks not what you know but how quickly can you learn, Pacific prepares its students, no matter what their pre-professional orientation, to communicate clearly, to analyze problems, to synthesize information and to understand people, systems and cultures.
The College has traditionally encouraged offcampus learning. Pacific undergraduates may study abroad, pursue independent research projects, and may undertake career internships which earn credit toward graduation.
The College offers a Bachelor of Arts and a Bachelor of Science degree. In addition to the regular program, the College offers three intensive four week summer terms. A variety of summer classes are available which apply to undergraduate degree requirements. Summer term provides an affordable option for earning additional
credits or accelerating degree completion. The Summer Session catalog is available in mid-March and may be obtained from the Registrar's Office.

## GRADUATE SCHOOLS AND COLLEGES

## School of Education

For over ninety years teacher education has been an integral part of Pacific University. Today the School of Education continues this long tradition with comprehensive and innovative programs designed to meet the needs of those seeking professional education coursework, at both the undergraduate and graduate level. At campuses in Forest Grove and Eugene, courses of study include undergraduate and graduate degree programs leading to initial licensure for teachers in general and special education classrooms and for school counselors. In addition, the School offers a continuing teaching license program for in-service teachers, and a special masters program for optometrists. Non-degree programs for teachers who wish to add endorsements and / or authorizations are also offered.
An outstanding faculty is the key to the excellence of Pacific's educational programs. Representing a wide range of teaching and academic expertise, the majority of the faculty hold earned doctorates and have had significant experience teaching in public school classrooms. Pacific's faculty members demonstrate a commitment to education as a lifelong process.
As a complement to providing an educational environment that fosters the development of intellectual independence and high ethical standards, the School of Education has a strong relationship with surrounding school districts and communities. This allows students to fulfill the field-based components of their programs in a variety of settings, which serve as laboratories for all aspects of the teacher education program.
A final factor critical to the success of School of Education programs is the quality of its students. The student population is a balance of traditional students in their early twenties and of older students seeking new careers. Those students accepted to our programs have demonstrated superior academic, professional, and interpersonal
abilities. As graduates of the School of Education, they are well prepared for service to a changing community, nation, and world.

## School of Occupational Therapy

The School of Occupational Therapy at Pacific University offers a 29 month entrylevel Masters of Occupational Therapy (MOT) degree to educate and prepare future occupational therapists for the challenges of the next century.
Occupational Therapy focuses on day-today activities (occupations) in which people engage on a daily basis. Through successful engagement in meaningful and valued daily occupations, an individual experiences a sense of competency, self-fulfillment and subsequent health and well-being.
The School of Occupational Therapy holds firmly to the founding philosophy of the profession: engagement in meaningful and purposeful day-to-day activities leads to health and well-being. Fieldwork, involving partnerships with community practitioners and organizations, is integrated throughout the curriculum. Fieldwork experiences provide students the opportunity to study and engage in a variety of settings where people across the age span maintain, promote or regain occupational function, health, and well-being.
The Occupational Therapy curriculum focuses on the study of occupational function/ dysfunction and its impact on health. This emphasis, along with a commitment to facilitate critical thinkers and problem solvers, prepares graduates for a future in community based practices. Consistent with the philosophy of Pacific University, the School of Occupational Therapy seeks to promote values of leadership, quality and service. Graduating therapists from Pacific University's School of Occupational Therapy are well qualified to utilize occupation as a powerful medium for facilitating health in our communities.

## College of Optometry

The College of Optometry offers a four- year Doctor of Optometry degree, and a Masters of Science in Clinical Optometry degree. Offering quality learning opportunities within a supportive environment is of highest priority at Pacific. Its Optometry pro-
grams are distinctive, and they emphasize service to both profession and community.
In addition to maintaining a full service clinic on campus, the College operates four fully-staffed clinics in the Portland area. Students regularly complete professional preceptorships in Alaska, Arizona, California, Colorado, Florida, Hawaii, Montana, Minnesota, New Mexico, North Dakota, South Dakota, Washington, Germany, and Guam.
The Masters of Science in Clinical Optometry degree program is designed to prepare individuals for careers in optometric education, research and specialty practice. It usually requires a minimum of 21 months to complete.
Residency programs leading to a certificate in Primary Eye Care Optometry, Geriatric Optometry, Ocular Disease/Refractive and Ocular Surgery, or Cornea and Contact Lenses are available through the College. The Cornea and Contact Lens residency is provided directly by Pacific University. The Ocular Disease / Refractive and Ocular Surgery residency is provided through a joint program with Eye Care Associates of Nevada. Other programs are provided through affiliations with the Veterans Administration Medical Centers.

## School of Physical Therapy

The School of Physical Therapy grants a three-year Doctor of Physical Therapy degree as preparation for entry into the physical therapy profession. Pacific University's location in Forest Grove, Oregon offers physical therapy students the values associated with a small town environment, as well as some of the excitement of a larger city-Portland. The campus itself has many cultural, sports, and social events and opportunities. The students of the School of Physical Therapy are bright, enthusiastic and committed to the profession which results in a very high retention rate. Over the years, graduates have made many important contributions to the health care of Oregon and the surrounding states. The School of Physical Therapy has a strong and caring faculty dedicated to providing a quality educational experience to its students. Special faculty strengths are in geriatrics, motor control, stroke treatment, biomechanics, research and orthopedic physical therapy. Many of the faculty have gained regional or national recognition for
their clinical skills and research contributions. In addition to the professional program, the School of Physical Therapy offers a Doctor of Physical Therapy degree for practicing physical therapists and several continuing education programs for the professional community annually. These programs are staffed by the School's faculty and by other authorities in the field.

## School of Physician Assistant Studies

The School of Physician Assistant Studies strives to prepare students for service in a changing healthcare environment through an education based in primary care medicine with a focus on critical thinking. The 27-month master's degree curriculum is designed to provide the student with the didactic and clinical skills needed to assist in the practice of medicine while stressing the importance of understanding and valuing the diversity of cultures, peoples and lifestyles. Students are provided a foundation of medical knowledge from which to begin lifelong learning to meet the needs and challenges of a changing healthcare system. The Faculty of the School of Physician Assistant Studies includes physicians, physician assistants, psychologists, pharmacists, nurses, physical therapists, other health care providers along with basic scientists in anatomy and physiology. Through this team approach to education, the physician assistant student learns to value the roles of other members of the team.
The program is proud to acknowledge the active participation of the medical community in all aspects of the program. Community providers are involved in the advisory and admissions committees and serve as lecturers and preceptors. The program has affiliations with hospitals, managed care organizations, medical groups, community clinics, nursing homes and private practice physicians throughout Oregon and surrounding states. The Physician Assistant (PA) is a respected member of the health care team who works with his or her supervising physician to provide diagnostic and therapeutic patient care in a variety of medical settings. The physician assistant is ranked as one of the top careers in growth potential by the U.S. Department of Labor. Positions are available in both primary and specialty care at a variety of practice settings such as community clinics, private practice, medical
groups, hospitals, managed care organizations, prisons and other government agencies. In addition to clinical practice, physician assistants may advance into positions in research, academics, public health and health care administration.

## School of Professional Psychology

The School of Professional Psychology (SPP) at Pacific University offers the Doctor of Psychology (Psy.D.) degree, with an emphasis on preparing research-informed graduates for service careers as professional psychologists. SPP also offers a separate Master's in Counseling Psychology (M.A.) degree, with two specialty tracks: Behavior Analysis and Organizational Behavior. The M.A. program is situated in downtown Portland. Graduates of the M.A. in Counseling Psychology degree meet Oregon educational requirements to become Licensed Professional Counselors. Graduates of both programs are doing exceedingly well in a variety of community and professional settings in their chosen professions.
Overall, SPP provides a comprehensive educational experience that fosters clinical competence based on the existing body of research literature. The program fosters an appreciation of human functioning as it occurs in natural settings, including the awareness of personal, interpersonal, and socio-cultural influences operating within such settings. Faculty have been carefully selected to provide students with a cutting edge education that will prepare them for all professional eventualities.
In addition to numerous clinical and counseling practicum settings for both the Psy.D. and MA programs in the Portland community and throughout the State of Oregon and Southern Washington, SPP maintains its own Psychological Service Center (PSC) in Downtown Portland. This clinic provides extensive psychological services to the community at large. The PSC, under supervision of licensed psychologists, affords students an excellent training ground to perfect their craft. Finally, at the PSC the School has its own Psychology Internship Training Program, which affords doctoral students the opportunity to complete national and state requirements for their internships.

## OTHER ACADEMIC PROGRAMS AND RESOURCES

## English Language Institute

Pacific's English Language Institute offers an intensive language study program for foreign students learning English. The ELI has in residence students from Asia, Europe and Latin America. ELI students live with American roommates in the residence halls and may take regular university classes as soon as their English skills allow. The ELI also provides special summer study programs. The ELI is a division within the School of Education.

## Harvey W. Scott Memorial Library

The Library at Pacific offers a welcoming atmosphere and a variety of information and research resources. Library faculty and staff work regularly with students and faculty to assist them in locating, evaluating and using today's world of information-both traditional and electronic. The Library's collections include books, periodicals, and databases as well as government documents, videos, and sound recordings. The Library is also the home of the Margaret McChesney Scott Music Library and the University Archives.
While the Library strives to build strong, core collections, it also participates in area library consortia to meet the considerable research needs of our students and faculty. Through courier services and interlibrary loans, students and faculty can efficiently tap the substantial research resources of our region and beyond. For additional information about the Library and its services, please visit the University's web site at www.pacificu.edu.

# Entering the University 

## ADMISSION AS A FRESHM AN

We seek to admit students who demonstrate the necessary skills to be successful in a rigorous academic environment. In selecting students for the freshman class, Pacific gives primary consideration to academic preparation and potential for successful study at the college level. Preparation is assessed by evaluating the high school transcript of college preparatory work, counselor recommendation, standardized test scores, a written essay and other information submitted by the applicant.
Pacific will not consider an individual for admission unless one of the following three criteria has been achieved: 1) a high school diploma or its equivalent 2) a passing grade on the General Education Development (GED) examination, or 3) a passing score on an independently administered, federally approved ability to benefit test.
Applications may be obtained by writing the Office of Admissions, Pacific University, 2043 College Way, Forest Grove, Oregon 97116-1797, or by calling 503-352-2218 or 800-677-6712. Applications are also available online at www.pacificu.edu.
Preferred application deadline is February 15 . Notification of decision will be made on a rolling basis beginning November 15.

## ADM ISSION AS A TRANSFER STUDENT

Pacific considers transfer applicants based on their academic record and level of preparation, as well as academic recommendations. Based upon evaluation by the Registrar's Office, transfer students from accredited institutions may receive full or partial credit for arts and sciences courses at the baccalaureate level. These courses
must be completed with a grade of "C-" or higher. Academic departments decide which transfer courses satisfy requirements for majors and minors at Pacific. Students should consult the department chair in their major field. Students who transfer from an unaccredited college or university must successfully complete 30 hours of work at Pacific before consideration will be given to granting credit for course work completed at the previous institution. In computing transfer credit, 1.5 quarter hours is equal to 1 semester hour.

## APPLICATION PROCEDURES FOR FRESHMEN AND TRANSFER STUDENTS

1. Forward completed application form and the nonrefundable $\$ 30$ application fee to the Admissions Office.
2. Give recommendation form to counselor or appropriate faculty member to be completed and returned to Pacific University Admissions Office.
3. Request that official transcripts for all academic work be forwarded to the Admissions Office. Transfer students with less than 30 semester or 45 quarter hours of transferable credits should submit their final high school transcript, standardized test scores and all college transcripts.
4. Submit SAT I or ACT scores. Transfer students are waived from this requirement if 30 semester hours or 45 quarter hours have been completed by the time of application.

## INTERNATIONAL STUDENTS

Pacific University welcomes international students. Admission is based on academic preparation and proficiency in English. International students must submit:

1. An Application Form, available from the Admissions Office.
2. The application fee of $\$ 30$.
3. Complete official academic records (with official English translation) covering all work taken at the secondary and university level (such as secondary school records, certificates of education, final government examinations, college, university, and technical school records)
4. Certification of Finances Form stating that sufficient financial resources exist to pay for all educational and personal expenses. (e.g., letter from bank, etc.)
5. An official score report of the Test of English as a Foreign Language (TOEFL) for those students for whom English is a second language. Results must come directly from the Educational Testing Service. No student copies will be accepted.
To enroll as an undergraduate student, an applicant must earn a TOEFL score of 550 or higher. Students whose academic qualifications are sufficient but who need further language training may attend the English Language Institute prior to entering the undergraduate or graduate programs. All students who enter the United States on a student visa are required to carry at least 12 semester hours of course work in each semester.

## DEPOSIT POLICY

All degree seeking students who are admitted by the Admissions Office are required to post a $\$ 200$ deposit no later than the Uniform Candidate Reply Date of May 1, to secure their place in the incoming class on a space-available basis. The deposit will be credited to the student's tuition payment charges for the first semester. New students may receive a refund of the $\$ 200$ deposit if requested before May 1. It is not refundable after that date.

## CAMPUS VISITS

A visit to campus is the best way to learn about Pacific. Students are encouraged to make arrangements through the Admissions Office to attend classes, meet with students and faculty, talk with an admission counselor, tour the campus, dine in the university commons, and spend an evening in one of our residence halls. Accommodations for overnight visits are available Sunday through Thursday. Priority will be given to high school seniors.

## READMISSION

To apply for readmission after an absence of one semester or more, a student must complete a brief Application for Readmission form, and submit official transcripts from all colleges attended during a student's absence from Pacific to the Dean of the College of Arts and Sciences.

## COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

Each department or school will decide whether a specific CLEP examination may substitute for a specific course or entrance requirement. Credit may be granted for both subject and general CLEP examinations.

## LIMITED ENROLLMENT FOR HIGH SCHOOL STUDENTS

Academically talented high school students may enroll as non-admitted students through the registrar's office for one course per semester with approval of the high school principal and the Pacific University course instructor. These students may apply for admission upon meeting requirements for degree seeking students.

## Tuition \& Fees

## SCHEDULE OF FEES AND COSTS FOR ACADEMIC YEAR 2002/2003

## Tuition

Annual (two 14-week terms)*
Tuition for students for the
academic year .................................. $\$ 18,766$
Semester (one 14-week term)*
Tuition for students for the
semester ............................................ \$9,383
Part-time, per semester hour (1 through 11 credit hours) ..... $\$ 780$
Summer, per semester hour ..... \$390
Fees
Student Government/Activities**
Annual ..... \$120
Semester ..... \$60
Health service **
Annual ..... \$140
Fall or Spring Semester ..... \$70
Technology **
Fall or Spring Semester ..... \$100
Summer Term ..... \$35
Annual (Fall, Spring \& Summer) ..... \$235
Recreational **
Annual ..... \$50
Semester ..... \$25
Medical insurance
August 23, 2002 to August 22, 2003 (U.S. citizen) ..... \$476
August 23, 2002 to August 22, 2003 (International) ..... \$591
Music
One half-hour lesson per week (12 sessions, 0.5 credits) ..... \$220
Organ practice rental per semester ..... \$50
Study Abroad
Semester ..... \$250

* Overloads: There is a credit plateau from 12-18 hours where tuition charges remain at the 12 -credit level. Students enrolled for more than 18 credit hours are charged full-time tuition, plus the part-time semester hour charge for each credit hour above 18 hours.
** Applies to all students enrolled in 6 or more credits for the term.
Note: Students whose accounts are in delinquent status will not be eligible to register for the following semester.


## 2002/2003 ROOM/BOARD

| Room Rates |  |  |
| :---: | :---: | :---: |
| ROOM RATES | ACADEMIC YEAR | SEMESTER |
| Double, Triple or Quad ........... \$ 2,602.... \$ 1,301 |  |  |
| Single .................................... \$ 2,968 .... \$ 1,484 |  |  |
| Double Suite/Triple Suite ...... \$ 3,088 .... \$ 1,544 |  |  |
| Double/Single (Double Room-one occupant) or Quad w/ 2 persons .............. \$ 3,320 .... \$ 1,660 |  |  |
| Single Suite ............................ \$3,430 .... \$ 1,715 |  |  |
| Vandervelden Studio .............. \$ 3,596 .... \$ 1,798 |  |  |
| Vandervelden Suite ................ \$ 4,190 .... \$ 2,095 |  |  |

Board Rates

| LEVEL A LEVEL B LEVELC LEVEL D |
| :--- |
| Semester .......... \$1,110 .. \$1,258 ... \$1,404 . \$1,548 |
| Winter Term ....... \$228 .... \$262 ...... \$296 .... \$330 |
| Annual ............ \$2,448 .. \$2,778 ... \$3,104 . \$3,426 |

The meal plan is a combination of a traditional board plan and "dining dollars." The traditional board plan includes all dinners and the weekend brunches (nine meals per week) in an all-you-can-eat style. "Dining Dollars" can then be utilized for weekday breakfasts and lunches with an ala carte pricing. This allows students to pay for only what they want for the breakfasts and lunches.

## Level A

$\$ 250$ dining dollars per semester; $\$ 40$ dining dollars for Winter term

## Level B

\$375 dining dollars per semester; $\$ 70$ dining dollars for Winter term

## Level C

$\$ 500$ dining dollars per semester; $\$ 100$ dining dollars for Winter term

## Level D

\$625 dining dollars per semester; $\$ 130$ dining dollars for Winter term
Students may change their meal plan level before the end of the second week of the fall and spring semesters. The account balance will be carried over from fall semester to winter term, and then to spring semester, but not transferred to the next year's fall semester. There is no refund of dining dollars at the end of the spring semester. However, bulk buying of food items will be available for students to use up any remaining declining balance at the end of the spring semester.

## TUITION AND FEE <br> PAYMENT OPTION

## I. Semester Plan

This plan allows you to pay "in full" before the beginning of each semester. Due dates for the 2002-2003 Academic Year are:
SEMESTER TOTAL PAYMENT DUE DATE

Fall/Winter August 15, 2002

Winter January 5, 2003*
(for students entering Winter Term)
Spring January 15, 2003

Summer $\qquad$ May 15, 2003
*Students entering the University during the Winter Term will pay the tuition and fees prior to registration. If the student is enrolled full-time during the Spring Semester, the spring invoice will reflect a credit in the amount of the Winter Term tuition and fees. If you do not make the payment according to schedule, a late fee of $\$ 50$ will be assessed to your account for each month that the payment is past due. The University will assess a return check charge in the amount of $\$ 25$ for checks returned to the University for nonpayment.

## II. Monthly Payment Plan

This plan allows you to pay tuition and fees in four installments each semester. For the fall term, payments begin on August 15, 2002 with additional payments due the 15 th of each month. For spring term, payments begin on December 15, 2002; for summer term, April 15, 2003. There is an annual set-up fee of $\$ 55$ for choosing this option. If you sign up for this payment option after the first payment due date, it will be necessary to make up the payments from the previous months in order to become current on the payment plan. If you do not make the payment according to schedule, a late fee of $\$ 50$ will be assessed to your account for each month that the payment is past due. The University will assess a charge of $\$ 25$ for checks returned to the University for nonpayment.
Note: (the following information is applicable to both the Semester Payment Plan and the Monthly Payment Plan)
Disbursement of Federal Direct Stafford Loan (subsidized and unsubsidized), Federal Perkins Loan and Health Profession Student Loan cannot occur until the borrower completes a promissory note and entrance interview. Disbursement of Federal Direct Parent Loan for Undergraduate Students and alternative loans such as CitiAssist occur only after credit approval of the loan application.
Anticipated disbursements of accepted and approved loans may be considered when calculating payment of student accounts. Student employment (Federal Work-study and Pacific Work-study) earnings are paid directly to the student and should not be considered in determining student account payment.
All checks to be credited to the student's account, including outside scholarship checks, Pacific University checks, and all other sources of payment must be endorsed and credited to the student's account in advance of the semester or as soon as they are available or received for the semester in order to avoid late fees.

## BUSINESS POLICIES ON TUITION AND FEES

The University strives to maintain high educational standards at the lowest reasonable cost. Contributions from individual alumni, parents and friends of the University, and support from foundations and corporations help to reduce costs to students and their families through the University's development and fund raising programs.
The Board of Trustees reserves the right to adjust costs after giving students due notice. The University reserves the right to modify or terminate the academic program in which the student is enrolled.
Students should make the necessary arrangements for the payment of all fees and charges in accordance with one of the University's payment options. All payments must be made in United States funds.

## Admissions Expenses

When a student applies for admission to the University, an "application fee" as determined by the College must accompany the application.
When a student is admitted to the University, a non-refundable advance payment deposit is required to complete the admission process. The deposit will reserve the student's place in the incoming class on a space available basis and will be credited to the student's tuition payment charges for the first semester.

## General Deposit

A general deposit of $\$ 100$ is charged to all new students and transfer students. This deposit remains with the University until the student either graduates or leaves the institution. Upon leaving, the deposit is refunded in full within a reasonable timeline unless outstanding charges exist on the account.

## Business Office Policies

Students enrolling at Pacific University have a Business Office account opened in their name. Timely payment of the account is the responsibility of the student. A student's registration in a new semester will not be complete until the previous semester's financial obligations have been satisfied.

Pacific University's philosophy on payment reflects the educational element of assuming and meeting one's fiduciary obligations carefully and completely. Payment due dates are established, depending on the tuition payment plan agreed to between the student and the University. Students receiving financial aid of any kind - including Pacific funds, loan funds, and / or outside scholarship funds - must be certain that all funds intended for their account have been processed and delivered to the University Business Office and credited to the student's account. This covers endorsement of all checks to be credited to the student's account.
Please visit our web site at nellie.pacificu. edu/finance/bo/ or email us at cashiering@pacificu.edu.

## Student Information Worksheet

Each student must complete a student information worksheet with the Business Office at the beginning of each academic year they are enrolled at Pacific University. This worksheet will provide the student's name, ID number, and authorization for information and payment plan selected. This form must be completed and signed by the student in order to be valid. Without a completed form on file the Business Office will not release information to any person other than the student.

## Insurance

Medical insurance coverage is required for all students enrolled in at least six credits in their first semester of their academic year. Students with their own personal medical insurance coverage are exempt from participation in the University's group plan if they properly complete and file a waiver form for each academic year within two weeks from the first day of their academic year.
Group medical coverage is available both for dependents of insured students and during summer vacation. Contact the local insurance agent, Waltz Sheridan Crawford, at 503-3573154 for premium rates and applications.
Personal property insurance is recommended. If parents' insurance policies do not already cover students in school, several low-cost policies are available from local insurance companies. The University is not responsible for the property of students or employees and thus cannot be held accountable for any losses.

## Past due Accounts

The University reserves the right to deny access to class, to withhold transcript of record or diploma, or to withhold registration for a subsequent term until all university charges and appropriate loans have been paid and a student's account has been cleared.

## Withdraw al and Refund Policy

Students who completely withdraw from all classes may be eligible for a refund of all or a portion of their University charges. Students must contact the Dean of Students' Office to formally withdraw from the University.
The policy of refunding University charges reflects the formula, prescribed in Federal law, that governs the return of Federal funds to the appropriate financial aid programs. Refunds on all charges will be prorated on a per diem basis up to the 60 percent point in the semester. Students who withdraw on or before the first day of classes will be refunded 100 percent of their charges; students who withdraw after the 60 percent point in the semester will not be eligible for a refund. A copy of the refund schedule is available from the Financial Aid Office.
A hall presence fee of $\$ 25$ per day may be assessed against the student account for additional time residing in the University Housing or participating in the University Meal Plan.

Note: If a cash disbursement is issued to a student as a result of excess financial aid and the student subsequently withdraws from the University, the student may be required to repay the cash disbursement to Pacific in order to return funds to the applicable financial aid programs.

## Change in Credit Hours

When a student modifies their schedule to change from an overload to full-time standing or from a full-time to a part-time standing, but does not completely withdraw from all classes, the following will apply:

- If the changes are completed prior to the last day of the add/drop period the appropriate refund will be given.
- If the changes are completed after the stated add / drop period no refund will be given for the reduction in courses. The student will forfeit all tuition refund resulting from the change in standing.


## Short-term Loans

Short-term loans are available to full-time students of the University who are in temporary need of financial assistance. In order to qualify for this loan, students cannot be delinquent or be in default on their Business Office account, and must be able to demonstrate a means of repaying the loan within 120 days. Loans are available for up to $\$ 500$. Interest is charged at an annual rate of 5 percent, beginning 30 days after the issue date.
Students may borrow more than one loan, but may not have more than $\$ 500$ outstanding at any time. Failure to repay the loan on the agreed upon repayment schedule will cancel the student's privilege to borrow further from the Short-Term Loan or Emergency Loan programs for the remainder of the academic year.
Academic transcripts and / or diplomas will not be released for students who are delinquent on their loan at the time they are requesting the transcript or leaving the University. Students who terminate their enrollment at the University will have their loan due date changed to reflect their last day of enrollment.
Applications for the loan can be made through the Business Office. The loan application fee is $\$ 10$.

## Financial Aid

The goal of Pacific University's financial aid process is to make a Pacific University education affordable. To that end, we offer a variety of merit-based scholarships and need-based grants, loans, and employment opportunities. Funds for these awards come from institutional, state, and federal sources.

We strongly encourage all families to apply for financial aid by completing the Free Application for Federal Student Aid (FAFSA). The FAFSA should be completed as soon as possible after January 1st each year, either electronically at (www.fafsa.ed.gov) or by completing a paper version. While this application is not required for merit-based aid consideration, it is necessary to determine a family's " need" and then provide applicants with a complete package of financial assistance.

It is also a good idea to look for outside scholarships. High school counseling offices, civic organizations, churches, and businesses may have scholarships to award to local students. The Financial Aid Information Page at www.finaid.org contains links to several national scholarship search databases that might also be useful. Outside scholarships are considered resources that meet a family's "need" and may affect the student's receipt of other financial aid; in most cases, receipt of outside scholarships decreases the amount that students must borrow.

## ELIGIBILITY CONSIDERATIONS

Students must be admitted to Pacific University to have their eligibility for financial aid determined. Students who are accepted under a "special" status, and students who are not candidates for a degree are not eligible for financial aid.
Students must maintain compliance with the Pacific University satisfactory academic progress policy as outlined in the Academic Regulations section of this catalog to receive financial aid. Students who are in a "warning" or "probation" status may continue to receive financial aid for the semesters they are placed in that status.
Students are eligible for institutional and state financial aid for up to four academic years. Students may receive federal financial aid for up to six academic years.
Students must be U.S. citizens or nationals, permanent residents, or resident aliens to be eligible for federal financial aid. In addition, students must demonstrate federally defined "need" to qualify for federal grants, work-study, and need-based loans. "Need" is defined as the difference between the student's Cost of Attendance (COA) for an academic year and the Expected Family Contribution (EFC) that results from calculations completed based on the student's FAFSA information. Students must be Oregon residents, and meet state defined "need" criteria, to be eligible for state funds.
Students must attend full-time (12 or more credits per semester) to receive institutional, state, and most federal financial aid. Students must attend at least half-time (6 to 11 credits per semester) to receive certain federal grants and loans. A very limited number of students who attend less than half-time may be eligible for certain federal grants. Students who drop credits after they receive their financial aid may have their aid reduced or canceled.

## FINANCIAL AID PROGRAMS

## Scholarships

Academic Scholarships-Honors, Presidential, Trustee, and University Scholarships are awarded on the basis of academic merit as indicated by such measures as the student's grade point average and standardized test scores. Awards range from $\$ 3,000$ to $\$ 9,000$ per year and are renewable for up to four academic years.
Pacific Pacesetter Scholarships - these scholarships are awarded to entering students who participate successfully in the Pacific Pacesetter Scholarship Competition held in the spring of the year they will begin their attendance at Pacific. Winners receive up to $\$ 3,000$ per year for up to four academic years.
Endowed and Restricted Scholarships these scholarships are made available through the generous donations of friends of Pacific and are awarded to students who meet certain academic and other criteria specified by the donors of the funds. Amounts available vary annually, and separate application is not required. Awards are typically for one academic year only. A list of these scholarships is available in the Financial Aid Office.
UCC Tuition Scholarships - these scholarships are awarded to entering students who are dependents of United Church of Christ clergy members. Award amounts can be up to the equivalent of 50 percent of tuition. Students who receive these awards are not considered for academic scholarships.
UCC Matching Scholarships - these scholarships are awarded to students who receive a scholarship from the United Church of Christ. Students who demonstrate federally defined "need" receive up to $\$ 1,500$ in matching funds; students who do not demonstrate need receive up to $\$ 500$ in matching funds.
Phi Theta Kappa Scholarships - a limited number of these $\$ 1,500$ scholarships are awarded to transfer students who are members of Phi Theta Kарра. To be considered for these funds, students must have completed at least 30 semester hours or 45 quarter hours (accepted by Pacific), and have maintained at least a 3.5 cumulative grade point average.

## Grants

Pacific Grants - institutional awards made on the basis of "need". Award amounts vary annually, and are renewable for up to four years as long as the student maintains sufficient need.
Talent Awards - institutional awards made on the basis of outstanding talent and participation in music and forensics. Award amounts vary annually and are renewable for up to four academic years.
Federal Pell Grants - grants available to students who demonstrate eligibility according to federally defined criteria. Award amounts in 2002-2003 are $\$ 4,000$ to $\$ 400$ for the academic year.
Federal Supplemental Educational Opportunity Grants - these awards are given to the most needy Federal Pell Grant recipients, subject to fund availability. Award amounts in 2002-2003 are $\$ 500$ to $\$ 1,500$ for the academic year.
Oregon Opportunity Grants - available to Oregon residents who meet state defined eligibility criteria. Award amounts in 20022003 are expected to be $\$ 3,116$ for the academic year.

## Employment

Federal Work-Study - awards made on the basis of federally defined need and fund availability. Award amounts vary annually. Recipients are eligible to work on-campus or in community service positions offcampus. Students may not work more than 20 hours per week when classes are in session, and may not work during hours when they are scheduled to be in class.
Pacific Work-Study - awards made to students who do not show federally defined need but who could benefit from employment. Recipients are eligible to work on-campus. Students may not work more than 20 hours per week when classes are in session, and may not work during hours when they are scheduled to be in class. These awards are renewable for up to four academic years.

## Loans

Federal Perkins Loans - loans awarded on the basis of federally defined need and fund availability. Award amounts vary annually and cannot exceed $\$ 4,000$ per academic year. Repayment begins nine months after the borrower graduates or maintains less than half-time enrollment. Loans begin to accrue interest at a fixed rate of 5 percent after the nine-month grace period ends.
Federal Direct Stafford Loans - loans awarded up to federally established annual and cumulative maximum amounts based on the student's need, cost of attendance, dependency status, and class standing. In general, loans are subsidized if they meet the student's federally defined need, and "unsubsidized" if they exceed need. Dependent students are eligible for up to the following amounts per academic year in subsidized loan, unsubsidized loan, or a combination of the two: freshmen - $\$ 2,625$, sophomores - $\$ 3,500$, juniors and seniors - $\$ 5,500$. Independent students may borrow up to an additional $\$ 4,000$ as freshmen or sophomores, $\$ 5,000$ as juniors or seniors, in unsubsidized loan. Repayment begins six months after the borrower graduates or maintains less than half-time enrollment. Subsidized loans begin to accrue interest at a variable rate, not to exceed 8.25 percent, after the six-month grace period ends; unsubsidized loans begin to accrue interest when funds are disbursed.
Federal Direct Parent Loans for Undergraduate Students (PLUS) - loans available to credit-worthy parents of dependent students. Parents can borrow up to the student's entire Cost of Attendance minus the financial aid for which the student is eligible. Repayment begins 60 days after the loan is fully disbursed for the academic year. Loans begin to accrue interest at a variable rate, not to exceed 9 percent, when the funds are disbursed.

## Degree Requirements

## Curricular Goals

Every graduate of the College of Arts and Sciences shall have a command of the basic tools of thought and language:

- Inquiry, critical thinking, and critical analysis;
- Modeling, abstract thinking, and structural thinking;
- Quantitative reasoning;
- Creativity; and
- Written and oral language so that ideas, knowledge, emotions, and experiences can be clearly articulated, persuasively defended, and imaginatively conveyed.
Every graduate shall be prepared for a life of educated engagement, such that he or she will be able to:
- Interpret and experience with an historical consciousness;
- Cultivate creative means of expression and comprehension;
- Develop and reflect on his/her own set of values;
- Understand multicultural, diverse, and global perspectives;
- Access and evaluate information necessary to make informed decisions;
- Participate as an informed person and citizen in the arts, business, fitness and health, politics, and the sciences;
- Engage in the practices of a discipline with knowledge of the discipline and an understanding of how such knowledge is constructed and used; and
- Progress toward a productive and meaningful professional life.
The Faculty of the College of Arts and Sciences has established the College's degree requirements in order to ensure that each student accomplishes these curricular goals.


## BACHELOR OF ARTS DEGREE REQUIREM ENTS

## I. Credit Hours

124 semester hours are required for graduation

## II. College Core Requirements

All students are expected to undertake a broad course of study by completing with at least a "C-" each of the requirements listed below. No course can be counted for more than one requirement.
A. MATHEMATICS ( 3 semester hours)

All Math courses numbered 165 or higher, Psych 350 (Behavioral Statistics), Soc 301 (Social Statistics), or equivalent statistics courses.
B. WRITING (3 semester hours)

English 201 Expository Writing
Those students who achieve less than 35 on the TSWE are required to take Eng 101 in their first semester.
C. FOREIGN LANGUAGE (6 semester hours or proficiency)
A proficiency in a language other than English must be demonstrated by the successful completion of a 102-level course or its equivalent.
A student may satisfy this requirement by passing a proficiency test administered by the World Languages department.
Students who have two years of high school study in a single language will be advised to take the 102-level course. The instructor for the 102-level course can approve a shift to a 101-level course, if required to meet the best educational achievement.
A student whose native tongue is not English can be exempted from the Foreign Language Core requirement by obtaining approval from his/her advisor,
and the Chair of the World Languages and Literatures department. The advisor shall notify the Registrar.
D. FIRST YEAR SEMINAR ON ORIGINS, IDENTITY, AND MEANING:

## (4 semester hours)

All freshmen must take Humanities 100 in the fall semester. Transfer students need to substitute six semester hours in literature, history, philosophy, or humanities.
E. CROSS CULTURAL STUDIES:
(3 semester hours)
All students must take three semester hours in courses designated by as cross cultural in the Schedule of Classes or cata$\log$. The courses that qualify are those on the culture of Asia, Africa, Latin America, or aspects of American culture that draws upon these areas or the culture of the indigenous peoples of North America, excluding foreign language instruction.
F. THE ARTS (3 semester hours)

Three semester hours in Art, Music, or Theatre.
G. THE SOCIAL SCIENCES
(6 semester hours)
Two courses from two different disciplines chosen from Anthropology, Economics, Political Science, Psychology, Sociology, Social Sciences.
H. THE HUMANITIES (6 semester hours)

Two courses from two different disciplines chosen from Literature*, History, Media Arts (MedA 110, 111, 112, 120, 121, 201, 301, 302, 307, 308, 401, 410, 422 only), Philosophy, Humanities (including FS 201). (*Literature courses include English courses with the prefix Engl and selected courses in Chinese, French, German, Japanese, and Spanish as indicated in the course descriptions.)
I. THE NATURAL SCIENCES (6 semester hours)
Two courses from two different disciplines chosen from Biology, Chemistry, Environmental Science, Exercise Sciences, Physics, Science or two courses with laboratory in the same discipline. Biol 190 and Exsc 190 cannot be used to satisfy this requirement.

## J. SENIOR CAPSTONE

(2 or more semester hours)
A senior project, internship (with a presentation), or performance/show in the major.

## III. Major

Majors require at least 24 hours, including 16 upper division hours (exclusive of courses numbered 475). Major requirements are listed under the appropriate department.

## IV. Grade Point Average of $\mathbf{2 . 0}$

A minimum grade point average of 2.0 in all coursework earned at Pacific. In addition, a 2.0 GPA is required in all majors and minors; check major and minor requirements as some departments may have adopted a higher minimum than 2.0. All courses required for the bachelor's degree and major must be included in the 124 hours presented for graduation. Only grades of "C-" or higher will transfer as credit toward the degree.

## V. Upper Division Hours

40 hours of upper-division courses (numbered 300 and above), with no more than 10 hours of courses numbered 475 counting toward this forty-hour requirement.
All Study Abroad coursework through Pacific University or affiliates will be counted as upper-division. The first 31 credits of study abroad course work earned through Pacific University will count as Pacific University credit; the remainder of study abroad credit will be treated as transfer work and evaluated accordingly.

## VI. Residency

A. Students must complete at least 6 credits from Pacific University in upper division courses in their major and 6 credits from Pacific University in upper division courses for any minor. Individual departments may require a greater number of credits be completed at Pacific University. For these requirements, consult the list of requirements for each major or minor.
B. Students must complete 30 of the last 40 hours counted towards their degree at Pacific University.

## BACHELOR OF SCIENCE DEGREE REQUIREMENTS

## I. Core and Other Requirements

Candidates must meet all requirements for the Bachelor of Arts degree.

## II. Major Declaration

Satisfy requirements for a major or a minor from the Division of Natural Sciences, or a major in Psychology with two additional science laboratory courses.
Students may earn only one Bachelor's Degree at the College of Arts and Sciences.

## DEGREE POLICIES

## Declaration of Majors and Minors

1. Major requirements are listed elsewhere in the catalog under the appropriate departmental headings. The minimum requirement is 24 hours of which 16 hours must be upper division.
2. A Minor may be earned by meeting the requirements listed by a department. The minimum requirement is 15 hours of which 6 hours must be upper-division.
Every student must have a declared major, with a schedule approved by a faculty advisor in the major department, by the end of the sophomore year. Students are urged to plan wisely for a major program well before that time, in consultation with the faculty advisor.
Minors must be declared by the end of the junior year, and must be approved by a faculty member in the minor subject. Minors may be combined with majors to satisfy interests and more effectively prepare for a profession.
Forms for declaration of majors and minors are available from the Dean's office in Bates House, or from the Registrar's Office.
Degree requirements for students preparing to teach are listed in the Education section.

## Waiver of Departmental Requirements and Prerequisites

Upon application, academic departments may waive requirements for a major or minor, if faculty are satisfied that the student has already achieved the knowledge expected. Similarly, prerequisites may be waived at the discretion of the instructor. Course waivers do not reduce the number of credits needed for any requirement.

## 48-Hour Rule

A maximum of 48 hours in a single department, with the exception of departments that include more than one discipline (Business and Economics, World Languages and Literature, and Mathematical Sciences), where students may take up to 60 hours but no more than 48 in a single discipline, and Music, where students may take up to 60 hours.
A program of more than 48 hours which includes an internship may be approved by the Dean of Arts and Sciences upon petition.

## Activity Courses

A maximum of 4 hours in 1-hour activity courses are allowed. Music courses for students pursuing a Bachelor of Arts degree with a major in music are exempt from this activity hour limitation. Activity courses are: DANC 100 and 200 classes, HPER 150, MUS 150, MUS 151, MUS 158, MUS 153, MUS 163, MUS 165 and MUS 167.

## Internships

A maximum of 17 hours of internship credit will count towards graduation of which no more than 14 credits can be taken in any one semester. A maximum of 10 hours may count toward upper division.

## Changes in Requirements

Students must meet the requirements for the Core and majors and minors from the catalog from their year of original matriculation or a subsequent year. If more than ten years has elapsed since a student's original matriculation, then the original date of matriculation will be replaced by the date of re-entry in the implementation of this policy.
A student may choose different catalogs to satisfy the Core and majors and minors requirements.
The Oregon Teacher Standards and Practices Commission set requirements for prospective teachers. Students expecting to teach must satisfy those rules in effect at the time of graduation.

## Student Status

Students who register for fewer than 12 credits by the end of the add/drop period will be considered part-time students. Parttime status can adversely affect financial aid awards and athletic eligibility.

## Petitions

Students may seek exceptions to college requirements in extraordinary circumstances upon consultation with their advisors by petitioning the Faculty Standards and Advising Committee. Information on the process may be obtained from the Associate Dean of the College of Arts and Sciences whose office is located in Bates House.

## Graduation/Persistence Data

In accordance with the Student Right To Know Act DCL of August, 1991, Pacific University is required to publish graduation and persistence rates of the cohort of first time freshmen. While most students graduate in four years, the six-year graduation rate for the entering class of 1996 is calculated to be 58 percent.

## Advancement to Candidacy for Degrees

Pacific University offers three degree conferment dates during the academic year: fall, winter and spring. Formal commencement is held in spring only. All degree candidates must submit an Application for Degree form to the Registrar's Office by January 15 for spring; June 15 for summer; or October 15 for winter graduation. Students who are not graduating in spring but who wish to march in commencement must submit an Application for Degree as above.

## Graduation with Honors

Students receiving an Arts and Sciences baccalaureate degree will be designated cum laude if they achieve a cumulative grade point average of 3.50 to 3.69 ; magna cum laude if they achieve 3.70 to 3.90 ; and summa cum laude if they achieve 3.91 to 4.00 . Students receiving the Doctor of Optometry, Doctor of Physical Therapy, or Masters of Science in Physical Therapy, Master of Occupational Therapy, or Master of Science in Physician Assistant Studies degrees will be designated with distinction if they achieve a cumulative grade point average of 3.50 or above.

## Time Limit for Completion of Graduate Degrees

Unless otherwise noted within specific programs, all work for graduate degrees (including transferred credits, dissertation and examination) must be completed within a period of seven calendar years.

## Academic Programs

The College of Arts and Sciences is organized in four academic divisions and offers the Bachelor of Arts and Bachelor of Science degrees. Students can obtain an Oregon teaching license through the School of Education. Students interested in a teaching career should consult with the School of Education as early as possible. Education programs are available at both
the undergraduate and graduate level. Students must apply for admission to the School of Education separately from their admissions to the College of Arts and Sciences. Under-graduates typically apply for admission to the School of Education during the sophomore year.

## DIVISIONS, DEPARTMENTS AND MAJORS

Arts Division
\(\left.$$
\begin{array}{ll}\hline \text { DEPARTMENTS } & \text { MAJORS } \\
\hline \text { Art } & \text { Art } \\
\text { Music } & \begin{array}{l}\text { Music with emphases in: } \\
\\
\bullet \\
\\
\bullet \\
\\
\bullet\end{array}
$$ <br>

\& • Music Music Education\end{array}\right]\)| Theatre | Theatre |
| :--- | :--- |
| Humanities Division |  |

Natural Sciences Division

| DEPARTMENTS | MAJORS |
| :---: | :---: |
|  | Applied Science Bioinformatics |
| Biology | Biology with emphases in: <br> - Ecology and Evolution <br> - Molecular and Cellular |
| Chemistry | Chemistry with emphases in: <br> - Chemistry <br> - Biological Chemistry <br> - Chemical Physics Chemistry |
| Environmental Science | Environmental Science with emphases in: <br> - Biology <br> - Chemistry |
| Exercise Science | Exercise Sci with emphases in: <br> - Exercise Science <br> - Human Performance <br> - Sports Medicine |
| Mathematics and | Computer Science |
| Computer Science | Mathematics |
| Physics | Physics |

Social Sciences Division
\(\left.$$
\begin{array}{ll}\hline \text { DEPARTMENTS } & \text { MAJORS } \\
\hline & \text { International Studies } \\
\text { Business } & \begin{array}{l}\text { Business E Economics with } \\
\text { concentration in: }\end{array}
$$ <br>
\& Economics Accounting/Finance <br>

\& \bullet Economics\end{array}\right\}\)\begin{tabular}{ll}
History \& History <br>
Politics \& Political Science <br>

\& Government \& | Psychology |
| :--- |
| Psychology | <br>


| Education and Learning |
| :--- | <br>

Sociology \& | Anthropology \& Sociology |
| :--- |
| Sociology | <br>

\& | Social Work |
| :--- |

\end{tabular}

## APPLIED SCIENCE

The Applied Science program leads to a wellrounded cross-disciplinary degree in science. It is well-suited for students seeking technical employment in areas where a cross-disciplinary background in science is desirable. It is also appropriate for students interested in a career in the high-tech industry, those planning further work in a specialty via a joint B.S./M.S. (particularly in engineering) or those transferring into programs in the health sciences. Students interested in teaching science via the integrated science norm or those interested in cross-disciplinary areas such as environmental science may choose this program.

In most cases, cooperative programs have additional requirements beyond those of the Applied Science major. Any student interested in such a program should carefully review its requirements and consult with members of the Department of Physics.

## Requirements

1. All requirements for two minors (excluding coaching) within the Division of Natural Science. If the department offers an applied minor students must complete the requirements for it.
2. If appropriate, one of the passport courses their freshman year. If no passport course is taken freshman year a seminar in one of the minors must be taken junior or senior year.
3. CS 150, Introduction to Computer Science I; CS 230, Advanced Software Tools; or Math 301, Mathematical Modeling.
4. 28 hours of upper division work within the Division of Natural Sciences selected to meet specific career or interdisciplinary objectives. A faculty committee made up of the department chairs must approve these courses. Courses in approved science-related professional programs may be counted in this total, but no more than 4 hours of internship may be counted here.
5. The particular capstone will be determined by the advisor but must include 4 hours of senior project or one year of course work in an approved professional program. (E.g. Physical Therapy, Optometry, Engineering). The project must include independent study and analysis of experimental and / or scientific literature. Examples of acceptable projects include:
A) A focused review of the literature that results in an original interpretation or novel application.
B) A pedagogical project for students interested in pursuing a career in teaching.
C) An internship at a government laboratory or an industrial site.
D) A community service project which uses innovative application of scientific principles and technology.
The project will culminate in a written paper and oral presentation.

# DEPARTMENT OF ART 

Jan Shield, Chair, Professor of Art
Patricia Cheyne, Associate Professor of Art
Terry O'Day, Assistant Professor of Art
Jim Flory, Instructor, Photography
Steve O'Day, Instructor, Computer Graphics*
Jacqueline Ehlis, Instructor of Art*
Ann Wetherell, Assistant Professor of Art History*
*adjunct faculty

## ART

In today's world the well-rounded liberally-educated individual is becoming increasingly in demand. The truly educated person is one with a broad background. The Art program at Pacific University is equipped to provide students with a strong conceptual base, expressive direction, and instruction in artistic processes and techniques. Through the visual and tactile nature of Art the faculty tries to integrate the consciousness of personal expression into every liberal arts and professional student. The Art program offers the opportunity for a major or minor concentrating in either a two- or three-dimensional emphasis for the working artist. Other opportunities include certification in teaching art at the secondary level, an integral Fine Arts curriculum, or a focus in Graphic Arts and M edia Arts by the availability of a double major or major/minor in the two departments. Pacific University also offers specialized classes through a cooperative program with Oregon School of Arts and Crafts. For further information please contact the Art Department.

The Art faculty plant the seeds of artistic growth for all students through their offerings of concentrated singular and sequence course work. Students are expected to use the studio facilities on their own for at least two hours for every one hour of class instruction. In addition, advanced art students can work on directed study under
individualized contracts where creative projects in the studio and internships are developed.

Expanding the human dimensions in Art continues to lead our graduates into various careers in art, as arts directors, teachers, or in preparation for graduate school. The program also seeks to provide art experience for application to problem solving, use of leisure time, and therapy. We look forward to your participation in our program.

Students planning to prepare to teach in public schools should consult subject matter and professional requirements listed under the Division of Education.

The Art Department at Pacific University seeks to prepare students for:

- lifelong interest, appreciation and understanding of art;
- a life of creative involvement in expressive and technical artistic processes;
- being functionally literate in the language of art - reading, writing, speaking related to the expressive processes and terminology;
- Expanding ability to critique creative projects and artistic works by one's self and others;
- Broadening the awareness of Art history and cultural heritage;
- Using artistic technologies related to one's areas of interest;
- Increasing the nature of human perception, motivation and creation as a necessity for personal growth and well-being;
- Doing independent and collaborative artistic research and projects;
- Discovering the relationships between the arts and other academic disciplines and the world;
- Graduate study in art with a focus on two- and/ or three-dimensional artistic work;
- Pursuing expressive directions for individual creative growth as well as careers in art.


## MAJOR IN ART

In addition to meeting the University core requirements, the major in Art must complete the courses listed below with a 3.0 average, with no grade below a "C-".

## Requirements

Art 105 Understanding Art OR
Art 201 Seeing: Adventures in Art ............... 3
Art 110 Basic Design........................ 3
Art 210 Drawing I ............................ 3
Art 270-272 $\begin{aligned} & \text { History of } \\ & \text { Western Art I, II, OR III ...... } 3\end{aligned}$
Art 270-280 Art History .......................... 3
Art 495 Senior Show ......................... 3
Additional courses in Art, including a concentration of upper-division courses in two-dimensional and / or three-dimensional creative work, Independent Studies, as approved by the student's advisor.

* Note: A minimum of 16 upper-division hours must be included.


## MINOR IN ART

This minor can be structured to enhance a number of academic majors and provide creative options to both the liberal arts and professional programs of study.

## Requirements

Art 105 Understanding Art OR
Art 201 Seeing:
Adventures in Art ............... 3
Art 110 Basic Design ........................ 3
Art 270-280 Art History .............................. 3
Electives: Selected additional arts courses, two of which must
be upper-division. $\qquad$12

## COURSE DESCRIPTIONS

## Art 105 Understanding Art

This course will introduce various basic art media (both academically and artistically) to enhance understanding of the artistic process. The course will also present an art historical survey to help students appreciate how the media previously discussed were used in different cultural contexts to create art. Strongly recommended as an introduction to other art history courses. No prerequisites. Meets arts core requirement. 3 hours. Cheyne or Staff.

## Art $110 \quad$ Basic Design

Introduction to the basic elements of design through a concentrated study of its theory and application and by assignments in twoand three-dimensional mediums. The course is open to all students. 3 hours. Shield/Cheyne/ T O'Day/Staff.

## Art 201 Seeing: Adventures in Art

This course will survey the dynamics of visual expression with respect to the historical traditions and influences of Art in the 20th century. Emphasis is placed on awareness, understanding, and appreciation of artistic style, content, and expressive direction from the basis of modern art into the age of the electronic image. No prerequisite. 3 hours. Shield or Staff.

## Art 210 Drawing I

General studio instruction in drawing covering work in pencil, conté crayon, charcoal, pen and ink, and brush and ink. Design, composition, the rendering of light, and perspective are explored, as well as working from the human figure. 3 hours. Shield/Cheyne/T O'Day/Staff.

## Art 217 Computer Graphics Image Design

Studio work introducing the computer as a creative tool. Software applications related to design and painting will be explored. The student will be expected to complete a portfolio of computer generated images. No prerequisite. 3 hours. S O'Day.

## Art 218 Computer Graphics Illustration

Studio work introducing the computer as a creative tool. Software applications related to drawing and illustration will be explored. The student will be expected to complete a portfolio of computer generated images. No prerequisite. 3 hours. S O'Day.

Art 219 Painting : Watercolor
Studio course in expressive and illustrative watercolor painting techniques. Students explore and develop handling and control of watercolor processes and learn numerous painting techniques as well as the analysis of various papers and working surfaces. 3 hours. Shield.

## Art 220 Painting I: Oil/Acrylic

Studio work investigating methods and techniques related to acrylic, polymer, and/or oil-base paints. Each student generates a series of studies and original painting. Readings and discussion explore the essence of painting. 3 hours. Shield.

## Art 225 Sculpture I

Developing a working understanding of sculptural form, working with various mediums. Through reading, discussion, critique, and individual sculpting projects the student explores geometric, abstract and organic form. 3 hours. Shield.

## Art 226 Photography I

A thorough nuts and bolts course to teach students basic camera handling operations as well as introductory photography concepts. The "great themes" of photography are introduced to provide a historical perspective. This course is intended for Art majors and non-majors. A 35 mm SLR camera is a requirement for the course. 3 hours. Flory.

## Art $230 \quad$ Printmaking I: Relief and Silk-screen Printmaking

This course will explore relief printmaking processes including but not limited to stamp prints, linoleum block prints, and woodcut prints. In addition, it will teach the basics of one color silk-screen techniques. The history of printmaking and traditions of the multiples will also be discussed. Offered concurrently with Art 330. 3 hours. Cheyne.

## Art 233 Printmaking I: Collagraphs and Non-Toxic Intaglio Printmaking

This class is designed to introduce the students to the basic techniques of intaglio printing including, but not limited to collagraphs, etching, and image-on intaglio. Monoprints will also be taught. All methods will be taught with non-toxic methods. The history of printmaking and tradition of multiples will also be discussed. Offered concurrently with Art 333

## Art 235 Illustration I

An introduction to illustration, including drawing techniques, type/fonts, compositional reduction, structural studies, various transfer and printing processes. Emphasis is placed on acquiring skills in, and for use in a wide variety of artistic, commercial and occupational areas. 3 hours. Shield.

## Art 238 Papermaking

This course is an introduction to the creation of handmade paper as an art form. Sheet formation and decoration will be introduced. The processing of natural and recycled materials to create paper will also be taught. Uses of handmade paper in art forms such as sculpture and the artist book will be explored. The goal in offering this course is to enable students to explore handmade paper as a fine art media. 3 hours. Cheyne.

## Art 240 Ceramics I

Introduction to clay with an emphasis on handbuilding techniques and an exploration of historical and contemporary directions. Included are discussions of how surface embellishment and firing processes affect both the function and aesthetics of the ceramic object. 3 hours. TO'Day. Offered fall semester.

## Art 250 Stained Glass

Designed to acquaint the student with three basic areas in the study and construction of stained glass; history, design concepts, and the acquisition of skills in cutting, soldering, and fitting glass. 3 hours. T O'Day. Offered Winter III.

## Art 260 Jewelry/ <br> Metals Fabrication I

Introduction to non-ferrous metals fabrication techniques as applied to jewelry making and metalsmithing. Learn to solder, saw and form metal, as well as basic stonesetting techniques. Historical overview of the meaning and use of jeweled and metal objects and their relationship to various cultures. 3 hours. T O'Day. Offered fall semester.

## Art 265 Jewelry/Casting I

Introduction to the lost wax casting process as applied to jewelry making and metalsmithing. Learn wax carving and mold-making procedures to produce models for casting. Historical overview of the meaning and use of jeweled and metal objects and their relationship to various cultures. 3 hours. T O'Day. Offered spring semester.

## Art $270 \quad$ History of Western Art I: Paleolithic through Late Medieval

This class covers the major monuments in art of western civilizations, beginning with the earliest paintings and sculptures of the Paleolithic period and continuing through the architecture, sculpture, and painting of the late Medieval period. Social, political, and cultural context for the art are a major focus. 3 hours. Wetherell.

## Art 271 History of Western Art II: Renaissance through 18th Century

This class examines the development and proliferation of the arts from the proto-Renaissance in Italy in the 13th century and continues into the late 18th century and the French Revolution. Painting, sculpture, and architecture will be discussed in relation to style and how they reflect the social, political, economic, and religious values of the culture. 3 hours. Wetherell.
$\begin{array}{ll}\text { Art } 272 & \begin{array}{l}\text { History of Western Art III: } \\ \text { Nineteenth and Twentieth } \\ \text { Century }\end{array}\end{array}$
This course examines the development and diversity of art in the late 19th and 20th centuries. The pluralism of society and culture, and the development of science and technology are reflected in the variety of visual arts. The social, political, and technological context of the art is a major focus. 3 hours. Wetherell.

## Art 273 Art and Architecture of China

This survey of the arts of China concentrates on painting, sculpture, metalwork, and ceramics from the Neolithic period through the 18th century. Major examples of architecture are also considered briefly. Emphasis is given to the development of Chinese landscape painting from the Tang dynasty up through the Qing period. The important philosophical and religious movements of Daoism, Confucianism, Buddhism and Chan (Zen) Buddhism are discussed in relation to Chinese art and society. Works of art are presented in their social and historical context so that students emerge with an appreciation for Chinese art and a general understanding of the culture of historical China as well. Meets cross-cultural core requirement. 3 hours. Wetherell.

## Art 274 Art and Architecture of Japan

This class covers sculpture, painting, printmaking, ceramics, architecture, and landscape architecture from the Neolithic age through the great Ukiyo-e printmakers of the Edo period. The interrelationship of literature, philosophy, religion, and the arts is emphasized. Students emerge with an understanding of Japanese art in the cultural and historical context of Japanese society. Meets cross-cultural core requirement. 3 hours. Wetherell.

## Art 275 Art and Architecture of India

This class surveys the sculpture, architecture, and painting of India, starting with the ancient Indus Valley civilization and Vedic period and ending with the art and architecture of the Shah Jahan era (mid 17th century). It covers indigenous art of the Buddhist and Hindu periods, and Indo-Islamic architecture and painting. A basic introduction to Buddhist, Hindu, and Islamic religion is included. Meets cross-cultural core requirement. 3 hours. Wetherell.

## Art 280 Women in Art

This course is designed to explore the place of women in art. The course investigates both the image of women in art and women as artists. The class investigates how women have been portrayed in the art at different times and in different cultures. The goal of the class is to shine a light on material that has often been overlooked by the traditional art history cannon. No prerequisites - Feminist Theory class desirable. Meets Feminist study minor requirement. 3 hours. Cheyne.

## Art 300 Art Education: Class and Practicum

This class is designed to teach methods of art instruction to the prospective elementary school teacher. Topics covered are creativity, developmental levels, Discipline Based Art Education, state and national standards, and lesson plan creation. There are hands-on experiences with different art media. In addition, Pacific students have the opportunity to work with children ages 4-12 in an after-school Art Workshop. No prerequisite. 4 hours. Cheyne

| Art 310 | Drawing II: <br>  <br> Advanced Drawing |
| :--- | :--- |

An advanced drawing class that challenges students to expand on the skills learned in Drawing I. Prerequisite: Art 110, Art 210 or consent of instructor. 3 hours. Shield/Cheyne /T O'Day.

## Art 317: Computer Graphics II: Advanced Image Design

Designed for the student to further explore the processes taught in 217. Portfolio will contain more advanced work. Prerequisite for 317: Art 217 or consent of instructor. S O'Day

## Art 318 Computer Graphics II: Advanced Illustration

Art 318 is designed for the student to further explore the processes taught in 218. Portfolio will contain more advanced work. Prerequisite: Art 218 or consent of instructor. S O'Day

## Art 320 Painting II : Oil/Acrylic.

Continuation of Art 220. Further study of the processes involved in painting using oil and acrylic colors and mediums. Emphasis on creation of original advanced works. Prerequisite: Art 220. 3 hours. Shield.

## Art $325 \quad$ Sculpture II

Advanced concepts and techniques of sculpting are explored, including the expressive and structural elements of man-made form. Emphasis on the expressive potential to be found in sculpting. Prerequisite: Art 110, 210, or 225, or consent of the instructor. 3 hours. Shield.

## Art 326 Photography II

This course is intended for those students who have completed Photography I. The major emphasis is to give students a solid foundation for black and white photography. Film processing, printing, and darkroom use are a major part of the course. The course takes an artistic approach and is intended for Art majors and/or nonmajors. Historical aspects of American photographers working in black and white are introduced. Prerequisite: Art 226. Offered Yearly. 3 hours. Flory.

## Art 330 Printmaking II: Advanced Relief and Silk-screen

This class involves the more advanced printmaking student in further exploring the processes taught in 230. It also challenges the students to explore their own artistic voice through the relief and silk-screen processes. Prerequisite: Art 230. 3 hours. Cheyne.

## Art 333 Printmaking II: Advanced Collagraph and Non-toxic Printmaking

This class challenges the advanced printmaking students to develop their own personal artistic voice in the mediums taught in 233. Prerequisite: 233. 3 hours. Cheyne.

## Art 335 Illustration II

Continuation of Art 235. Further development of illustration skills, and advanced techniques related to professional illustration. Student prepare a portfolio of illustrations related to their discipline. Prerequisite: Art 235.3 hours. Shield.

## Art 338 Advanced Papermaking/ Bookmaking

This course is designed to further explore the creation of handmade paper as an art form. Taking the basic skills learned in Art 238 the students will use the media of papermaking to express their own personal artistic voice. An extensive investigation into the artist book will also be a part of this class. The goal in offering this course is to have students become more sophisticated in their understanding of papermaking and book creation. 3 hours. Cheyne.

## Art $340 \quad$ Ceramics II

Continued study of ceramic media with an emphasis on wheelworking techniques. Study of firing techniques, glaze application and formulation to further an understanding of how surface decoration can enhance form. Students are challenged to use this information to express their creativity. Prerequisite: Art 240 or consent of instructor. 3 hours. T O'Day. Offered spring semester.

## Art $350 \quad$ Stained Glass II

This course is designed to encourage experimentation with glass through slump molds, fusion and three-dimensional construction application. Prerequisite: Art 250 or consent of instructor. 3 hours. T O'Day. Offered Winter III.

## Art 356 Color Photography

A comprehensive advanced course covering all aspects of color photography. From the technical aspects of film emulsions, exposure to the artistic potential of color, composition, light, and subject matter. Color transparency printing will be covered in the lab. Students will be encouraged to investigate their own emotional response to color. Prerequisite: Art 226, and 326. 3 hours. Flory.

## Art 360 <br> Jewelry/ <br> Metals Fabrication II

Continued study of the techniques learned in Fabrication I with a more complex application of skills. The emphasis is on the use of acquired skills to produce objects that become a personal expression. Prerequisite: Fabrication I or consent of instructor. 3 hours. T O'Day. Offered fall semester.

## Art 365 Jewelry/Casting II

A continuation of the study of the techniques learned in Casting I with a more complex application of skills. Emphasis on the use of learned techniques to produce objects that communicate a personal interpretation of the ideas and theory presented in class. 3 hours. T O'Day. Offered spring semester.

## Art $426 \quad$ Photography III

This upper-level course deals with several advanced areas of photography. Students will work with medium and large format cameras, studio lighting techniques for portraiture and still-life, and use Polaroid films in a variety of photography related activities. Prerequisite: Art 226 and Art 326. 3 hours. Flory.

## Art 485 Individualized Study/ Seminar

This course is designed for the advanced art student who wants to pursue intensive in-depth study developing a body of individualized projects in one area of art. Students study under an instructor's supervision, and in addition the student will be required to participate in Seminar. Seminar is designed to create an artistic community for the advanced art student. Prerequisite: Junior or Senior standing, art major or minor, or instructor consent. It is strongly recommended that all art majors take Art 485 in the fall of their senior year. 2-7 credits. Shield/ Cheyne/T O'Day/Flory/Wetherell.

## Art 498 Senior Show

This class is the capstone experience for art majors. It gives the senior art major an opportunity for concentrated study to prepare a body of art work to be displayed in a senior show. A portfolio to document that show will also be required. Each student will also present a thesis presentation on Senior Project Day. In addition, the student will be required to participate in Seminar, designed to create an artistic community for the advanced art student. 3 credits. Staff.

## ATHLETICS

The athletic program's primary purpose is to provide a wide range of athletic opportunities for students and members of the broader community. These opportunities include participation in physical conditioning, athletic competition and support or spectatorship at levels appropriate to the individual's own development and interests. The program is designed to complement the student's academic pursuits as co-curricular activities and enrich their overall experience at Pacific University.

In the spirit of the pursuit of excellence through the joy of sports, Pacific offers 16 intercollegiate sports, fielding men's and women's teams in basketball, cross country, golf, soccer, tennis, track and field, and wrestling. We offer men's teams in baseball and women's teams in softball and volleyball. Club teams offered include handball and men's volleyball. Over one third of the undergraduate student body participates in sports at the intercollegiate level. Pacific is a member of the Northwest Conference, one of the best athletic conferences in the nation, and is affiliated with the NCAA Division III.

The Pacific Athletic Center, commonly referred to as "The PAC," is the home for athletic activities at Pacific. It is a newly remodeled and spacious athletic complex which houses a gymnasium with three activity areas; a state of the art fitness center; a field house with an indoor softball/baseball facility including two batting cages, four volleyball courts, two basketball courts, two tennis courts, and an indoor walking track. There are three handball/ racquetball courts, saunas, dance studio, and wrestling room. The sports medicine/training room is equipped with whirlpools, electric stimulation unit, ultra sound, hydrocultator, Cybex and other state of the art equipment.

The outdoor facilities include four tennis courts, practice soccer fields, and a soccer game field near the heart of campus. Baseball and softball are played in Lincoln Park which is located adjacent to the Pacific Athletic Center.

Pacific's athletic programs have achieved excellence on and off the court or field of play. In the 1990s, Pacific teams won 11 conference championships, six district or regional titles, and participated in national championship competitions 24 times. Pacific's athletes also excel in the classroom, holding a combined grade point average of 3.15 .

Judy Sherman, M.Ed., Athletic Director
Ken Schumann, M.Ed., Associate
Athletic Director
Jeff Grundon, B.S., Assistant
Athletic Director
Blake Timm, B.A., Sports
Information Director
Linda McIntosh, M.S., ATC-R, Head Athletic Trainer

Machi Machida, B.S., ATC-R, Assistant Athletic Trainer

Richard Rutt, Ph.D., Athletic Trainer
Vicki McGee, B.A., Athletic Secretary
Jean Rix, M.Ed., Assistant to the Athletic Director

Lisa Sardinia, Ph.D, J.D., Faculty
Athletic Representative

## INTERCOLLEGIATE PROGRAM

Greg Bradley, Baseball Coach
Jim Brazeau, Men's and
Women's Soccer Coach
Staff, Wrestling Coach
Bradley Jones, Volleyball Coach
Melissa Jones, Softball Coach
LeeAnn Kriegh, Women's Basketball Coach
Ken Schumann, Men's Basketball Coach
Ron Tabb, Cross Country Coach and
Track \& Field Coach
Richard Warren, Golf Coach
Alan Watts, Tennis Coach
Staff, Women's Wrestling

## CLUB SPORTS

Staff, Men's Volleyball
Dr. Mike Steele, Handball

## INTRAMURAL SPORTS

Providing quality participatory experiences for the entire student body, the Intramural Program at Pacific offers several activities for men and women throughout the academic year. Flag football, volleyball and 3 -on- 3 basketball are offered in the fall, 5 -on-5 basketball in the winter, and softball in the spring. Additional activities will be announced on a yearly basis.

## ACTIVITY COURSES

## Hper 150 Activity Courses

A number of aerobic and anaerobic activities are included under this heading and are announced each term in the class schedule. (e.g. Weight Training, Aerobics, Yoga, Tai Chi, Tai Kwon Do, Walking, Handball) Graded P/NP. 1 hour. May be repeated*. Staff.
*Only four activity courses may count toward the 124 credits required for graduation.

## BIOINFORM ATICS

Michelle Hribar, Assistant Professor, Computer Science

Douglas J. Ryan, Professor, Computer Science
Lisa M. Sardinia, Associate Professor, Biology
Jon Schnorr, Assistant Professor, Biology
Bioinformatics is the science of storing, extracting, organizing, analyzing, interpreting and utilizing information. The approaches to the discipline of bioinformatics incorporate expertise from the biological sciences, computer science and mathematics. The major in bioinformatics is designed for students interested in molecular biology and genetics, information technologies and computer science. Bioinformaticists are involved in the analysis of the human genome, identification of targets for drug discovery, development of new algorithms and analysis methods, the study of structural and functional relationships, and molecular evolution.

## GOALS FOR THE MAJOR

In successfully completing a major in Bioinformatics, students must demonstrate:

- knowledge and awareness of the basic principles and concepts of biology, computer science and mathematics.
- the ability to effectively apply existing software to extract information from large databases and use this information in computer modeling.
- problem solving skills, including the ability to develop new algorithms and analysis methods.
- understanding of the intersection of life and information sciences, the core of shared concepts, language and skills.
- the ability to speak the language of structure-function relationships, information theory, gene expression, and database query.


## MAJOR IN BIOINFORMATICS

Requirements
Biol 202 General Biology I ..... 4
Biol 204 General Biology II ..... 4
Biol 304 Experimental Design, Analysis \& Writing ..... 4
Two of the following: .....  8
Biol $320 \quad$ Cell Biology
Biol 330 Genetics
Biol 400 Molecular Biology
Chem 220 General Chemistry I ..... 4
Chem 230 General Chemistry II ..... 4
Organic Chemistry ..... 4-8
Chem 240/241 Survey of Organic Chemistry ..... OR
Chem 310/311 \& 320/321Organic Chemistry I \& II
Chem 380 Biochemistry ..... 3
CS 150 Introduction to Computer Science I ..... 4
CS 250 Introduction to Computer Science II ..... 3
CS 300 Data Structures ..... 3
CS 360 Databases ..... 3
Math 207 General Elementary Statistics ..... 3
Math 240 Discrete Mathematics ..... 3
BINF 290 Introduction to Bioinformatics ..... 1
BINF 490 Capstone Internship ..... 3
58-62
Students majoring in Bioinformatics are encouraged to take a course in ethics as part of their College core requirements.

## COURSE DESCRIPTIONS

BINF 290 Introduction to Bioinformatics
An introductory course for students interested in bioinformatics. This course provides a survey of the major issues in bioinformatics and the way these issues are being addressed by bioinformaticists. Faculty and outside speakers from industry and academia will make presentations and lead discussions. Prerequisites: Sophomore standing and Biol 202 with a "C-" or better or CS 150 with a "C-" or better.

## BINF 490 Capstone Internship

An internship consisting of a field experience in an industrial or academic setting. Application of theories is emphasized. Arrangements for the course must be completed at least two weeks prior to the term in which the course is taken. The internship is a capstone experience and must be taken during the senior year. Prerequisites: Instructor's consent, BINF 290, and completion of 16 hours of Biology and 10 hours of Computer Science (all with grades of " C " " or better). Graded $P / N$.

## BIOLOGY

Edmond Alkaslassy, Assistant Professor
Kara Burnham, Assistant Professor
Pamela T. Lopez, Associate Professor
Marlene Martinez, Assistant Professor
Lori Rynd, Professor
Lisa Sardinia, Associate Professor, on sabbatical leave 2002-2003

Jon Schnorr, Assistant Professor

## Robert E. Stockhouse II, Distinguished University Professor

The Biology Department provides unique educational experiences for students in biology and related fields. The faculty in the department has particular expertise in ecology, botany, molecular biology, genetics, physiology, developmental biology, anatomy, invertebrate zoology, vertebrate zoology, marine biology, animal behavior, immunology and microbiology. Field courses provide direct experience through field trips to Henry Blodgett Arboretum, M alheur Field Station, and other habitats throughout Oregon. Faculty have contacts at Oregon Health and Science University and the Primate Center and students can arrange to do laboratory research at those locations.

The courses in biology are designed to provide the basic knowledge, skills, and training necessary for students who intend to pursue professional study in the health sciences, graduate study in biological sciences, or professional employment in some field of biology. All students will have independently designed research experiences in upper division classes designated by the symbol (R).

The Biology Department encourages students to obtain additional experience in the specialized area of their choice, through career internships or through independent research projects. Students also choose to complete one of three options: the Biology major, the Biology major with an emphasis in Ecology and Evolution, or the Biology major with an emphasis in M olecular and Cellular Biology.

The Biology Department sponsors the Omicron Xi Chapter of Beta Beta Beta, a national biological honor society, whose purpose is to promote student interest and participation in research. The Department also sponsors the Biology Club to promote student interest in biology and provide biology students with opportunities to socialize outside of class.

## GOALS FOR THE MAJOR

In successfully completing a major in biology, students must demonstrate:

- an understanding of the basic principles and concepts of biology
- an in-depth knowledge of three areas of biology:

1) cell / molecular / genetics
2) structure / function / systematics
3) ecology / evolution/behavior

- the ability to think critically and synthesize information from a variety of different sources
- the ability to communicate effectively in the discipline both orally and in writing
- the ability to design and conduct biological research

The Biology Department offers three options for a Biology major. While a student may take courses in any area of biology, students may only choose one option in the Biology Department.

Restrictions: In order to receive a Biology degree from Pacific University a student must complete Biol 304 Experimental Design, Analysis \& Writing; Biol 490 Senior Capstone Experience; and at least two additional upper-division Biology courses on campus. Students can not receive a degree in both Biology and Environmental Science with a Biology emphasis.
Though not a requirement for a Biology major, it is strongly recommended that Biology majors planning graduate work include a statistics course and independent research.

## MAJOR IN BIOLOGY

## Requirements

Biol 202 General Biology I ................ 4
Biol 204 General Biology II ............... 4
Biol 304 Experimental Design, Analysis \& Writing4

Biol 490 Senior Capstone
Experience ..... 2

Biol One upper division course
from Group I ..... 4

Biol One upper division course from Group II4
Biol One upper division course from Group III4
Biol
division Biology courses(excluding Biol 490 and 475).At least one of these coursesmust be lab or researchbased. Up to 4 hours of Biol495 may be used towardelective hours. Up to 4 hoursof Chem 380 or ES 301 maybe used toward electivehours.7-8
Chem 220 General Chemistry I ..... 4
Chem 230 General Chemistry II ..... 4
Chem 240/241 (Or Chem 310/311 \& 320/321) ..... 4-8
CS 130 Introduction to Software Tools ..... 2
One of the following 2-course clusters: ..... 7-8
CS 150 Introduction to Computer Science I

CS 250 Introduction to Computer Science II OR
Math 226 Calculus I
Math 301 Mathematical Modeling OR
Phy 202 Introduction to Physics I
Phy 204 Introduction to Physics II OR
Phy 232 General Physics I
Phy 242 General Physics II

## MAJOR IN BIOLOGY WITH AN EMPHASIS IN ECOLOGY AND EVOLUTION

## Requirements

Biol 202 General Biology I ................. 4

Biol 204 General Biology II ............... 4
Biol 304 Experimental Design, $\begin{aligned} & \text { Analysis \& Writing............ } 4\end{aligned}$

| Biol 490 | Senior Capstone <br> Experience........................... 2 |
| :--- | :--- |

Biol $\begin{aligned} & \text { One upper division course } \\ & \text { from Group I ..................... } 4\end{aligned}$
Biol Three upper division courses
Biol One upper division course from either:
Biol 305 Ecology OR
Biol 444 Evolution 3-4
Biol
One additional upper
division course from
Group III ........................ 4

Chem 220 General Chemistry I ........... 4
Chem 230 General Chemistry II .......... 4
Chem 240/241 (Or Chem 310/311

$$
\text { \& 320/321) .................... 4-8 }
$$

CS 130 Introduction to $\quad$ Software Tools .................... 2
One of the following 2-course clusters: ... 7-8

CS $150 \quad$| Introduction to Computer |
| :--- |
| Science I |

CS 250 Introduction to Computer Science II
OR
Math 226 Calculus I
Math 301 Mathematical Modeling OR
Phy 202 Introduction to Physics I
Phy 204 Introduction to Physics II OR
Phy 232 General Physics I
Phy 242 General Physics II
58-64

## MAJOR IN BIOLOGY WITH AN EM PHASIS IN MOLECULAR AND CELLULAR BIOLOGY

## Requirements

Biol 202 General Biology I ................ 4
Biol 204 General Biology II ............... 4
Biol 304 Experimental Design, Analysis \& Writing4

Biol 490 Senior Capstone Experience2

Biol One upper division course from Group I4

Biol One upper division course from Group III
Biol One upper division course from either:
Biol $350 \quad$ Principles of Development OR
Biol 470 Animal Physiology ............. 4
Biol Two additional upper division courses selected from the following eight courses:7-8

Biol 308 Microbiology

Biol 320 Cell Biology
Biol 330 Genetics
Biol 405 Immunology
Biol 400 Molecular Biology
Biol 480 Advanced Methods in Cell Biology
Biol 495 Research (approved project)
Chem 380 Biochemistry
Chem 220 General Chemistry I ........... 4
Chem 230 General Chemistry II .......... 4
Chem 310/311 Organic Chemistry I ........... 4
Chem 320/321 Organic Chemistry II .......... 4
$\begin{array}{ll}\text { CS } 130 & \text { Introduction to } \\ \text { Software Tools ..................... } 2\end{array}$

Notes: 3-4 credits of Biol 495 with an approved project that focuses on Ecology and/or Evolution may be used to satisfy 3-4 credits of Groups II or III. It is strongly recommended that students take 3 courses with extensive field experiences (see designations within Groups).

One of the following 2-course clusters: 7-8

| CS 150 | Introduction to |
| :--- | :--- |
| CS 250 | Computer Science I |
|  | Introduction to |
|  | Computer Science II |
|  | OR |

Math 226 Calculus I
Math 301 Mathematical Modeling OR
Phy 202 Introduction to Physics I
Phy 204 Introduction to Physics II OR
Phy 232 General Physics I
Phy 242 General Physics II
58-60 credits
Courses designated with ( $R$ ) include an independent research experience.

Courses designated with (F) include extensive field experiences.

## Group I: Cell/Molecular/Genetics

| Biol 308 | Microbiology (R) |
| :--- | :--- |
| Biol 320 | Cell Biology (R) |
| Biol 330 | Genetics |
| Biol 405 | Immunology |
| Biol 400 | Molecular Biology |
| Group II: Structure/Function/Systematics |  |

Biol 316 General Botany
Biol 350 Principles of Development (R)
Biol 410 Invertebrate Zoology (F)
Biol $420 \quad$ Vertebrate Zoology (F)
Biol $430 \quad$ Plant Systematics (R)(F)
Biol 470 Animal Physiology

## Group III: Ecology/Evolution/Behavior

Biol 305 General Ecology (R)(F)
Biol 340 Animal Behavior (R)(F)
Biol 345 Marine Biology (R)(F)
Biol 444 Evolution
Biol 450 Tropical Rainforest
Biology (R)(F)

## MINOR IN BIOLOGY

## Requirements

Biol 202 General Biology I ................ 4
Biol 204 General Biology II ............... 4
$\begin{array}{ll}\text { Biol } 304 & \text { Experimental Design, } \\ & \text { Analysis and Writing ......... } 4\end{array}$
Chem 220 General Chemistry I ........... 4
Chem 230 General Chemistry II .......... 4
Biology electives: 7-8
Two additional upper-division Biology classes excluding Biol 475, 490 and 495. At least one of these courses must be lab based.

Restrictions: In order to receive a Biology minor from Pacific University a student must complete Biol 304 Experimental Design, Analysis and Writing and two additional upper-division Biology courses on campus.

Any student interested in a Biology minor should consult with a faculty member in the Biology Department.

## COURSE DESCRIPTIONS

## Biology (Biol)

Courses designated with the symbol ( R ) include an independent research experience. Courses designated with the symbol (F) include extensive field experiences.

## Biol $105 \quad$ Biology is Life

This course provides non-science majors with an introduction to four fundamental aspects of biology: the scientific method, genetics, evolution, and environmental issues. There are no prerequisites. (Does not count toward a Biology major or minor.) 3 hours. Staff.

## Biol 110 Human Biology

An introduction to basic anatomy and physiology of the human organism. This course is designed for non-science majors. Laboratory is integrated with lecture. There are no prerequisites. (Students cannot receive credit for Biol 110 and any combination of Biol 224, 240, 300 or 302.) (Does not count toward a Biology major or minor.) 4 hours. Staff.

## Biol 115 Microbiology for Nonscience Majors

An introductory biology course to meet the Natural Science core requirement. This course stresses the history of microbiology and the diversity within the microbial world. It includes some aspects of medical, ecological and industrial microbiology. (Does not count toward a Biology major or minor.) 3 hours. Staff.

## Biol 145 Marine Biology for Nonscience Majors

An introduction to organisms and processes in the marine environment. Organismal adaptations and interactions of organisms with the environment are stressed. Includes some aspects of environmental and economic issues as they relate to biology of the ocean. Some weekend field trips required. Additional fee required. (Does not count toward a Biology major or minor.) 3 hours. Martinez.

## Biol 170 Human Genetics

This course introduces students to the study of inheritance in all of its manifestations, from the distribution of human traits in a family pedigree to the biochemistry of the genetic material in our chromosomes, DNA. The course examines the inheritance of traits in individuals and families, how traits evolve and are maintained in human populations, the molecular basis for those traits, and the Human Genome Project. (Does not count toward a Biology major or minor). 3 hours. Sardinia.

## Biol 180 Biology of Human Reproduction

A study of the biology of human reproduction, designed primarily for the non-science major. This course emphasizes the anatomy, development and physiology of human reproduction. Some aspects of psychology and sociology are introduced as they relate to birth control, venereal disease, and control of reproduction. (Does not count toward a Biology major or minor.) 3 hours. Rynd.

## Biol 202 General Biology I

A survey of ecology, evolution, the diversity of life on earth, and the structure of plants and animals. Laboratory is integrated with lecture. (NOTE: There are no prerequisites for this course. However, Biol 204 has prerequisites of Chem 220, Chem 230, and Biol 202 - all with grades of "C-" or better.) 4 hours. Staff.

## Biol 204 General Biology II

Basic principles of cell and molecular biology for both prokaryotes and eukaryotes. The course includes cell structures and functions, metabolism, classical genetics, and molecular genetics. Laboratory experiences are integrated in the course. Prerequisite: Biol 202, Chem 220, and Chem 230 - all with grades of " C -" or better. 4 hours. Staff.

## Biol 224 Human Anatomy

An examination of gross and histological structure of the systems of the human body. Laboratory is an integrated part of the course. (Students cannot receive credit for both Biol 110 Human Biology and Biol 224 Human Anatomy.) Prerequisite: Biol 202 (with a grade of "C-" or better.) 4 hours. Alkaslassy.

## Biol 240 Human Physiology

A study of the physiological phenomena of the human body from the molecular level of cellular metabolic functions to the operation of primary and specialized organ systems. Laboratory experiences are integrated in the course. (Students can not receive credit for both Biol 110 Human Biology and Biol 240 Human Physiology.) Prerequisite: Biol 224 (with a grade of "C-" or better). 4 hours. Staff.

## Biol 304 Experimental Design, Analysis, and Writing (R)

This course utilizes a hands-on, applicationoriented approach to enhance student understanding of: framing scientific questions based on primary scientific literature; designing appropriate experiments; analyzing data statistically and graphically; writing technical reports; and presenting seminars. Course culminates in a student proposed, designed, and conducted independent research project. Prerequisite: Biol 204 (with a grade of "C-" or better). 4 hours. Staff.

## Biol 305 Ecology (R) (F)

An introduction to the basic principles and fundamentals influencing interactions between plants and animals and their environment. Includes laboratory and field experiences. Includes a required four day field trip to Malheur National Wildlife Refuge. Additional fee required. Prerequisite: Biol 304 (with a grade of "C-" or better). 4 hours. Stockhouse. (G)

## Biol $308 \quad$ Microbiology (R)

A study of the structure, biochemistry, physiology, energy generation, genetics and diversity of prokaryotic organisms. Laboratory experiences are integrated into the course. Prerequisite: Biol 304 (with a grade of "C-" or better). 4 hours. Sardinia.

## Biol $316 \quad$ General Botany (R)

Fundamental principles of plant biology with emphasis on morphology, anatomy, taxonomy, physiology and evolution of algae, fungi, non-vascular and vascular plants. Includes laboratory and field experiences. Prerequisite: Biol 204 (with a grade of " C -" or better). 4 hours. Stockhouse. (G)

## Biol $320 \quad$ Cell Biology (R)

A study of the functions of biological systems from the molecular to the tissue level. The molecular biology of cells and the regulatory mechanisms for physiological processes are emphasized. Laboratory experiences are integrated in the course. Prerequisite: Biol 304 and organic chemistry (Chem 240/241 or Chem $320 / 321)$ all with grades of " $C-$ " or better. 4 hours. Rynd. (G)

## Biol 330 Genetics

A study of the principles of heredity with emphasis upon transmission genetics, quantitative inheritance, the molecular basis of inheritance, and population genetics. Laboratory experiences are integrated in the course. Prerequisite: Biol 304 (with a grade of "C-" or better). 4 hours. Staff. (G)

## Biol 340 Animal Behavior (R) (F)

A study of the ecology and evolution of animal behavior, including such topics as foraging strategies, predator-prey interactions, mating systems, sexual selection and communication. Mechanisms of animal behavior (such as endocrinology, genetics and neurobiology) are also discussed. Includes laboratory and field experiences which are integrated into the course. Prerequisite: Biol 304 (with a grade of "C-" or better). 4 hours. Lopez. (G)

## Biol $345 \quad$ Marine Biology (R) (F)

A study of life and processes in the marine environment. Organismal adaptations and interactions of organisms with the environment are stressed, with field trips to the marine intertidal zones. Includes some aspects of environmental issues as they relate to biology of the ocean. Some weekend field trips required. Laboratory experiences are integrated in the course. Additional fee required. Prerequisite: Biol 304 (with a grade of "C-" or better). 4 hours. Martinez.

## Biol 350 Principles of Development (R)

A study of molecular and cellular aspects of development and embryological differentiation of selected species. Laboratory experiences are integrated in the course. Prerequisite: Biol 304 (with a grade of "C-" or better). 4 hours. Rynd. (G)

## Biol $400 \quad$ Molecular Biology

A laboratory-intensive course focusing on nucleic acid biology, recombinant DNA and biotechnology. Prerequisite: Biol 304 and organic chemistry (Chem 240/241 or Chem 320/321) all with grades of " $\mathrm{C}-$ " or better. 4 hours. Sardinia. (G)

## Biol 405 Immunology

A study of the mammalian immune system covering the molecules and mechanisms used to fight infection. The development of B and T cells and their role in the human immune response will be emphasized. The relationship of the immune system to human biology will also be covered, for example, infectious disease, vaccines, allergies, and autoimmune disorders. The laboratory exercises will focus on immunological concepts and techniques including immипоfluorescence and Western blotting. Prerequisite: Biol 304 (with a grade of "C-" or better). 4 hours. Schnorr

## Biol $410 \quad$ Invertebrate Zoology (F)

A study of invertebrate organisms including their systematics, morphology and ecology. Laboratory experiences are integrated in the course. Some weekend field trips required. Additional fee required. Prerequisite: Biol 204 (with a grade of "C-" or better). 4 hours. Martinez. (G)

## Biol $420 \quad$ Vertebrate Zoology (F)

A study of vertebrate organisms, including their systematics, life histories, morphological and physiological adaptations, and behavior. Includes laboratory and field experiences with a four day required field trip to Malheur National Wildlife Refuge. Additional fee required. Prerequisite: Biol 304 (with a grade of "C-" or better). 4 hours. Lopez. (G)

## Biol $430 \quad$ Plant Systematics (R) (F)

Identification and classification of the vascular plants represented in the flora of the Pacific Northwest. Includes laboratory and field experiences. Some weekend field trips required. Additional fee required. Prerequisite: Biol 304 (with a grade of "C-" or better). 4 hours. Stockhouse. (G)

## Biol 444 Evolution

An introduction to the history, methods, and current questions in evolutionary biology. This course will examine the evidence for evolution beginning with Darwin and ending with our current understanding of the human genome. The course will cover the theory of natural selection, the basis of heredity and variation, population structures and genetics, and the mechanisms of speciation. Special topics include human evolution, molecular evolution, and the relationship of evolution to society, philosophy and religion. Prerequisite: Biol 304 (with a grade of "C-" or better). 3 hours. Schnorr

## Biol 450 Tropical Rainforest Biology (R) (F)

A study of tropical rainforest ecology and natural history, and current biological research in tropical rainforests. The course meets once a week during the fall semester, during which students gain the background required for the field component of the course held in Costa Rica during January. Course grades will be assigned at the end of January and will include work completed during both terms. Additional fee required. Prerequisite: Biol 304 (with a grade of "C-" or better) and consent of instructor. Alternate years. 4 hours. Lopez/Alkaslassy.

## Biol $470 \quad$ Animal Physiology (R)

The study of physiological function (molecular, cellular, and organ systems) in animals. The focus will be on the diversity of mechanisms used by animals for : water and solute regulation, gas exchange and transport, temperature regulation and tolerance, circulation, feeding and digestion, metabolism, excretion, neural control and integration, senses, and locomotion. Laboratory experiences are integrated in the course. Prerequisite: Biol 304 and organic chemistry (Chem 240/241 or Chem 320/321) - all with grades of "C-" or better. 4 hours. Gundersen. (G).

## Biol 480 Advanced Methods in Cell Biology (R)

This course is a laboratory course designed to introduce the student to a variety of cellular and biochemical techniques for investigating the behavior and function of living cells. Students will be required to understand the concepts of the techniques used, as well as to demonstrate hands-on competence in the laboratory. This course is strongly recommended for those students interested in undergraduate research projects, graduate school, or employment as a laboratory technician. Prerequisite: grade of "C-" or better in Biol 308, Biol 320 or Biol 400. Junior standing recommended. 3 hours. Staff. (G)

## Biol 490 Senior Capstone Experience

Designed to allow students to expand on research projects from upper-division biology courses by more thoroughly examining the primary literature, reanalyzing data, writing an annotated bibliography, and presenting in a public forum. Prerequisite: Senior standing and an approved data set. 2 hours. Staff.

## Biol 495 Research

Faculty supervised, student-conducted, individual research project. Prerequisite: Biol 304 (with a grade of "C-" or better) and consent of instructor. 1-6 hours. (G)

# BUSINESS AND ECONOMICS 

Michelle Baron, Chair, Associate Professor of Business Administration

Jamie R. Haag, Assistant Professor of Economics
Charles O'Connor, Professor of Accounting/Finance
Jennifer Roney, Assistant Professor of Business Administration
Philip J. Ruder, Associate Professor of Economics
John Suroviak, Associate Professor of Accounting/Finance

A major within the Department of Business and Economics is designed to prepare students to enter business or government as a beginning professional or to enter a graduate program in business administration or in economics. The department attempts to develop a broadly educated individual who is flexible, well versed in problem-solving methods, and responsive to the pressures and challenges of the modern world.

The department offers a major in business administration and a major in economics. Students majoring in business have the option of taking a concentration in accounting/finance.

The major students will plan electives in consultation with their advisor in order to improve skills in speech and writing, develop the strongest possible background in their area of interest, and achieve a well-rounded liberal arts education. Off-campus internships are available for responsible students who have identified specific career goals. The off-campus experience is intended to provide an opportunity for the student to be involved in the practical application of classroom concepts. Generally internships are not available until the second semester of the junior year. Normally, students are required to obtain an overall grade point average of 3.0 or higher to be eligible for an internship.

## GOALS FOR BUSINESS AND ECONOMICS MAJORS

A successful graduate of the department will be able to:

- read and understand standard textbooks and general publications covering topics in business and economics.
- write essays, short papers or major research papers in a clear and concise fashion with emphasis on content, style, and analytical ability.
- organize and presentideas and information orally in small group settings, and as a sole presenter.
- use data and statistics in order to understand and analyze relevant problems.
- use contemporary information technology effectively including the library, the internet, and computer software applications.
- design and carry out independent and collaborative projects.


## MAJOR IN BUSINESS ADMINISTRATION

The Business and Economics Department offers a major in Business Administration with the option of concentrating in accounting /finance. Each major in Business Administration must complete at least 43 hours (of which 18 hours of upper level courses must be taken at Pacific) in departmental courses and 6 hours in statistics and computer science. A minimum 2.0 grade point average is required in all business and economics courses; only grades "C-" or above may be used to satisfy department requirements, including Math 207 and CS120. Normally, majors are required to complete satisfactorily BA 203, 204, Econ 101, 102, Math 207 and CS120 prior to taking any of the upper division major requirements. The department chair must approve exceptions to this rule. Students who are planning to attend graduate school are encouraged to take a year of calculus. Students planning a career as a Certified Public Accountant must complete 150 semester hours of college course work, which is the equivalent of five years of college, prior to taking the CPA exam.

## Business Administration Core Requirements

$\left.\begin{array}{ll}\text { Econ 101 } & \begin{array}{l}\text { Principles of } \\ \text { Macroeconomics ................ } 3 \\ \text { Principles of }\end{array} \\ \text { Econ 102 } \\ \text { Microeconomics .................. } 3\end{array}\right\}$

NOTE: Students who major or minor in computer science are exempted from the CS120 requirement.

## Areas of Interest

Many career-oriented areas of focus within the business major are possible. Each student works with an academic advisor in the department to design the major that best fits the interests of the student. Students with an interest in accounting or finance will likely pursue a concentration in this area. The business majors without a concentration can design a program tailored to prepare them for careers in areas such as international business, marketing, production and services management, human resources management, or management of technology and information systems.
Each student intending to major in business will work with an advisor in the department to develop a plan of study that meets the standards of the department while preparing
the student for the career of choice. The upper-division elective requirements of the major will generally be met by study within the business and economics department; however, a course from another area of the college may be included in the degree plan when such a course supports the students' major focus. An internship that is closely integrated with a student's major focus might satisfy some of the elective credit for the major in business.

## MAJOR WITH NO CONCENTRATION

## Business Administration Core Requirements 34/35

| BA 405 | Business Policy .................... 4 |
| :--- | :--- |
| Electives | Approved by the <br> department ........................ 12 |

50/51

## MAJOR WITH CONCENTRATION IN ACCOUNTING/FINANCE

Business Administration Requirement 34/35
BA 313 Intermediate Accounting ... 3
BA 357 Income Tax Accounting ..... 3
BA 435 Seminar in Accounting $\begin{aligned} & \text { and Finance........................ } 3\end{aligned}$
Electives $\begin{aligned} & \text { Approved by the } \\ & \text { department ......................... } 6\end{aligned}$
49/50

## MINOR IN BUSINESS ADM INISTRATION

The Business and Economics Department offers a minor in Business Administration which requires completion of 22 hours of departmental courses. A minimum 2.0 grade point average is required. Any student interested in a Business Administration minor should consult with a faculty member in the Business and Economics Department.

## Requirements

Econ $101 \quad$| Principles of |
| :--- |
|  |
| Macroeconomics ................. 3 |

Econ 102 Principles of | Microeconomics .................. 3 |
| :--- | :--- |

BA 203 The Accounting Process
BA 204 Accounting Principles ........ 4

BA 303 Advanced MS Excel | and MS Access .................... 1 |
| :--- |

BA 305 Business Finance ................. 3
BA 360 Organizational Behavior .... 4
BA 300+ Business Administrative Elective 3

## MAJOR IN ECONOMICS

The major in economics requires completion of 30 hours in economics courses, 5 hours in accounting, 3 hours in statistics and 2-3 hours in computer science. Principles of Microeconomics and Macroeconomics are the basic prerequisites for all department courses. Elementary Statistics, Math 207, must be completed prior to enrolling in Econometrics, Econ 321. Pre-Calculus, Math 125, is a prerequisite for Microeconomic Theory, Econ 327. A minimum 2.0 grade point average is required in all major courses; only grades "C-" or above may be used to satisfy department requirements, including Math 207.
The department advises that students intending to do graduate work in economics should complete the calculus sequence and other selected math courses.

## Requirements

Econ 101 Principles of Macroeconomics .....  3
Econ 102 Principles of Microeconomics ..... 3
B.A. 203 The Accounting Process and MS Excel ..... 1
B.A. 204 Accounting Principles ..... 4
Mat 207 General Elementary Statistics ..... 3
Econ 321 Introduction to Econometrics ..... 3
Econ 327 Microeconomic Theory ..... 3
Econ 328 Macroeconomic Theory ..... 3
Econ 300+ Economics Electives ..... 15
One of the following ..... 2-3
CS 120 The Information Era
CS 130 Introduction to SoftwareTools
CS 230 Introduction to Advanced Software Tools
40-41
Note: One of the electives may be selected fromoutside economics with departmental approval.

## MINOR IN ECONOMICS

The Business and Economics Department offers a minor in Economics that requires completion of 18 hours of departmental courses including 9 hours of electives. A minimum 2.0 grade point average is required. Any student interested in an Economics minor should consult with a faculty member in the Business and Economics Department.

## Requirements

Econ 101 Principles of Macroeconomics ..... 3
Econ 102 Principles of Microeconomics .....  3
Econ 327 Microeconomic Theory ..... 3
Econ 328 Macroeconomic Theory .....  3
Econ 300+ Economics Electives ..... 9

## COURSE DESCRIPTIONS

## Economics

## Econ 101 Principles of Macroeconomics

An introduction to the U.S. economic system with emphasis on understanding the forces that cause economic problems and the policies that can be used to solve them. The causes and effects of inflation and unemployment, the role of money and banks in the economy and the causes and consequences of economic growth. No prerequisites. 3 hours.

## Econ 102 Principles of Microeconomics

An introduction to the economics of choice in a private enterprise economy. How individuals and firms make decisions in a world of scarce resources. The limitations of the market in dealing with problems such as pollution, monopoly power, and income distribution.The role of government in correcting market failure. An examination of the international economy including balance of payments and exchange rates. No prerequisites. 3hours.

## Econ 180 Contemporary Economic Problems

Seminar in current economic conditions and problems, analysis of economic policies and practices affecting such problems; contribution of the social sciences toward understanding and providing solutions to such problems. Prerequisites: Econ 101, or 102. 1-3 hours. This course may be graded Pass/No Pass at the discretion of the instructor.

## Econ 321 Introduction to Econometrics

Statistical techniques used in measurement of relationships among economic variables, emphasizing practical applications; estimation of econometric models, prediction, and hypothesis -testing; extensive use of computer. Prerequisites: Econ 101 and 102, Math 207. 3 hours.

## Econ 327 Microeconomic Theory

Principles of price and resource allocation theory in a decentralized economy; theory of consumer choice; price determination under different market situations; effects on economic efficiency. Prerequisites: Econ 101 and 102, and Math 125. 3 hours.

## Econ 328 Macroeconomic Theory

The economics of national income and employment. An analysis of measures of national income and the factors determining levels of income and employment. Prerequisites: Econ 101 and 102. 3 hours.

## Econ 329 International Economics

The economic analysis of the determinants of the international exchange of goods, services and financial assets. International trade topics include the effect of trade policy on national income level and distribution. International finance topics will include the balance of payments, foreign exchange rate regimes, and the flow of foreign investment. Special attention will be paid to examples relevant to U.S.-Europe, and North-South economic relations. Prerequisites: Econ 101 and 102. 4 hours.

## Econ 330 Industry Studies

An applied field of economics that deals with the problems of explaining the behavior of markets for goods and services. The emphasis is upon the market structure, conduct, and performance of selected industries, the problems of ownership and control, competitive behavior and pricing policy, technology and obsolescence, entry and size; the implications of trade practices for public policy. Prerequisites: Econ 101 and Econ 102. 3 hours.

## Econ 331 Money and Banking

Analysis of the nature and functions of money and effects of changes in the money supply; operation of commercial banks, the Federal Reserve System, and the Treasury that affect the United States' monetary system; monetary theory; critique of various monetary policies. Prerequisites: Econ 101 and 102. 3 hours.

## Econ 333 Environmental Economics

Environmental economics studies the role in the economic system of environmental amenities such as clean air and clear water. The course analyzes the problems of market outcomes when such amenities are not priced. The problems associated with estimating economic costs and benefits are also carefully examined. The course emphasizes the connection between economic understanding and improved public policy. Prerequisite: Economics 102. 3 hours.

## Econ 340 The Asian Economies

An examination of the performance of the East and Southeast Asian economies, addressing problems associated with economic growth, state intervention, industrialization, agricultural development, trade, and foreign investment; recent economic reforms in China; rise of the newlyindustrializing countries; transferability of the Japanese experience to other economies; impact of the Asian economies on the United States. Prerequisites: Econ 101 or 102. 3 hours. Meets cross cultural requirement.

## Econ 490 Senior Research Seminar

This seminar enables each student to apply the concepts and tools of economic analysis in the exploration of current policy issues, and to undertake a research project on a topic of particular interest. Normally students will have at least a 3.3 GPA to be eligible for the seminar. Emphasis will be placed on student-led discussion, with active participation of faculty members. Prerequisites: Senior standing in Economics and consent of instructor. 3 hours.

Econ 495 Independent Research
Student-conducted individual research/ theoretical project. Faculty supervised.

## ACCOUNTING AND FINANCE

## BA 203 The Accounting Process and Basic Excel

Detailed coverage of the accounting cycle and introduction to MS Excel. The Excel part of the course will focus on solving accounting and finance problems using Excel. Corequisite: BA 204. 1 hour.

## BA 204 Accounting Principles

Introduction to accounting concepts and application of these concepts; financial statement preparation; accounting systems and controls; accounting for assets and liabilities; partnerships and corporations; cash flow analysis and financial statement analysis; cost terminology, behavior and systems design; the planning and control process; using cost data in decision making. Prerequisite: Sophomore standing. Corequisite: BA203. 4 hours.

## BA 303 Advanced MS Excel and Basic MS Access

Advanced MS Excel applications in accounting and finance to make students proficient as they enter the business world. An introduction to MS Access to familiarize students with electronic databases. Corequisite: BA 305. 1 hour.

## BA 305 Business Finance

A study of the financial principles applicable to the business organization. Financial management of assets and the need for funds, sources and cost of obtaining short-term and long-term funds, capital budgeting. Prerequisite: BA204. Corequisite: BA303. 3 hours.

## BA 313-314 Intermediate Accounting

Financial accounting statement interpretation, presentation, and disclosure including coverage of functions and basic theory; asset recognition and measurement; liability recognition and measurement; stockholders' equity, dilutive securities, and investments; issues related to income measurement; and preparation and interpretation of financial statements. Prerequisites: BA204. BA 313 is a prerequisite to BA 314. 3 hours per semester.

## BA 316 Cost Accounting

Discussion of the nature, objectives and procedures of cost accounting and cost control; job costing and process costing; theory and practice of accounting for manufacturing overhead; cost budgeting and control; cost reports, joint product and by-product costing; distribution costs; standard costs; differential cost analysis; profit volume relationships and break-even analysis. Prerequisite: BA204. 3 hours.

## BA 334 Real Estate Principles

An introductory course in real estate. The following areas are emphasized: the real estate industry and the economy; real estate brokerage; real estate finance; real property appraising; title examination, title insurance and closing; landuse planning and zoning. Prerequisite: junior standing. 3 hours.

## BA 352 Investments

To gain an understanding of investing in marketable securities. To develop a vocabulary and knowledge of types of securities including common stocks, bonds and other types of investments. To understand and use fundamental and technical security analysis. To incorporate current financial events with reading materials and projects. Prerequisites: BA204, junior standing. 3 hours.

## BA 357 Income Tax Accounting

A study of the structure of federal tax laws and some of the motivating forces and policies shaping tax laws and concepts; determination of taxable income and the income tax liability as they relate to individuals; overview of the taxation of corporations and other entities; and an overview of Oregon income tax laws. Prerequisites: BA204 and junior standing. 3 hours.

## BA 415 Auditing

Studies both the theory and practice of auditing through the consideration of the auditing environment, standards, ethics, and liability and consideration of internal control techniques, audit evidence and working paper techniques, and methods of auditing procedures and types of reports. Prerequisites: BA 313, Math 207. 3 hours.

## BA 425 Advanced Accounting

Accounting for corporate business combinations using both the pooling of interests method and the purchase method, preparation of consolidated financial statements, and accounting for foreign operations. Prerequisites: BA 314. 3 hours

## BA 435 Seminar in Accounting and Finance

A capstone, discussion-based course for accounting/finance concentration that uses cases to explore realistic accounting and finance issues. Students will be faced with unstructured problems and be required to provide analyses and recommendations. Prerequisite: BA313, BA357, and Senior standing. 3 hours.

## MANAGEMENT AND ADM INISTRATION

## BA 302 Small Business Management

Development of the students' understanding of the economic and social environment in which small businesses function. The processes involved in initiating new ventures are discussed. The course focuses on the areas of marketing and financial management and the legal and governmental relations of the small firm. A detailed treatment of the problems involved in managing specific fields of small business such as a retail store, a franchise, a service firm, and a production plant. Prerequisite: junior standing. 3 hours.

## BA 306 Business Law

Introduction to the structure and functions of the American legal system followed by an overview of specific topics that are applicable to business. Topics include: contracts, sales, negotiable instruments, bankruptcy, suretyship, agency, partnerships, corporations, federal securities law, accountants, legal liability, employer and employee relationships, property, trusts and estates. Prerequisite: junior standing. 3 hours.

## BA 312 International Business

Survey course covering recent and important issues in international business, trade and investment. Topics might include the International Business environment, the government and regulatory environment, international comparative environments, international monetary environment, international marketing, international finance, management strategies, and the future of international business. Prerequisites: Econ 101, Econ 102, B. A. 300. B.A. 309. 3 hours.

## BA $320 \quad$ Human Resource Management

Functions of the personnel department in a business organization. Contributions of research in the social sciences to personnel administration. Operation and techniques of a personnel department including job evaluation, employee recruiting and selection, psychological testing, employment counseling, wage administration, labor management relations and other personnel programs. Prerequisite: junior standing. 3 hours.

## BA340 Quantitative Analysis for Business Decisions

An introduction to formalized methods used in managerial decision making and problem solving. The focus is on the development and use of decision models in a range of managerial applications. Techniques include decision analysis, linear programming, simulation, forecasting and project management. Development of computerbased decision models will be an integral part of the course. Prerequisite: junior standing. 4 hours.

## BA 350 Operations Management

Study of key concepts, quantitative techniques, and practices used in the management of the production of goods and services. Includes examination of product and process design, process analysis, total quality management, project management, materials management, capacity planning, work design, facility layout and operational scheduling. Prerequisites: Econ 101 and 102, junior standing. 3 hours.

## BA 351 Services Management

An exploration of key concepts and strategies for effectively managing service operations. Involves the study and application of appropriate frameworks, practices, and analysis tools for designing, evaluating, managing, and improving service operations. A multi-disciplinary approach to understanding services is adopted. 3 hours.

## BA 360 Organizational Behavior and Management

An introduction to the functions of management and to the theory of human behavior in organizations. Management history, attitudes, skills, and managerial processes as well as an investigation of the theories of human behavior, motivation, communication, decision making, group and social processes, organizational culture, power, and leadership are addressed. Prerequisite: junior standing. 4 hours.

## BA 362 International Management

The course will initially assume an anthropological perspective I exploring what culture is, how it is generated, and how it influences behavior in organizations. From this basis the course will introduce various managerial topics (e.g. leadership, teams, motivation) within different cultural environments including multicultural environments. The exploration of multicultural environments will allow students to develop strategies to design organizational systems to effectively integrate various perspectives, customs and viewpoints. Prerequisite: BA 360 and junior standing. 3 hours.

## BA 366 Organization Analysis and Design

The course explores how to design and manage the multiple systems (e.g. social, technical, management, information, reward) that makes up modern organizations. The course presents tools that students can use to analyze the extent to which each perspective dominates in a given organization and the degree of fit between the various systems. Students will utilize these tools in a field study of non-profit organizations to uncover design problems and identify ways to improve the organizations systems while maintaining system integrity. Prerequisite: BA 360 and junior standing. 4 hours.

## BA 405 Business Policy

This course serves as a capstone course for students of business administration without an accounting/finance concentration. It demands the integration of knowledge from all functional area business disciplines to make effective strategic decisions from an organization-wide perspective. The case study method of teaching combined with the dynamic application of course tools to real and simulated business situations are used. Prerequisite: BA 305, B.A. 309, BA360 and senior standing. 3 hours.

## MARKETING

## BA 309 Marketing

Introduction to marketing concepts and application of these concepts to the marketing of products, services, ideas, organizations, and people in both profit-oriented and nonprofit business environments. Topics include: marketing's role in society and within the firm; environmental evaluation; consumer buying behavior; market segmentation and target market selection; management of marketing mix variables (product, price, placement, promotion). Students gain experience in problem solving and communication through case analyses and presentations. Prerequisites: Econ 101 and 102 and junior standing. 3 hours.

## BA 333 Consumer Behavior

Identification and analysis of environmental and individual factors which influence behavior in the consumer market, emphasizing consumer decision processes and market responses. Course includes case analysis, presentation, and individual semester projects. Prerequisite: B.A. 309

## BA $410 \quad$ Marketing Research

Application of research techniques and statistical analysis to the consumer market through case analyses and individual research project. Each student works with a local business to design research, administer survey, conduct appropriate statistical analysis, and present findings (with operational recommendations) to management. Prerequisites: Math 207, B.A. 309, senior standing. 3 hours.

## BA 443 Special Topics in Marketing

A course focusing on topics of special interest to students and faculty, such as Services Marketing, Internet Marketing, Public Policy and Marketing, and Sports Marketing. Prerequisites: B.A. 309, junior standing. 3 hours.

## CHEM ISTRY

James O. Currie, Jr., Distinguished University Professor and Chair

Joel W. Gohdes, Assistant Professor
Kevin E. Johnson, Associate Professor
Brandi Langsdorf, Assistant Professor
Jodi M. Paar, Assistant Professor
Richard V. Whiteley, Jr., Professor
Chemistry plays a central role in the sciences because the goal of chemical study is understanding natural processes on an atomic and molecular level. Thus, chemistry majors should experience the excitement of relating molecular properties to the order they observe in nature. Our challenge is to emphasize the connections between the molecular level structure and properties and the behavior of macroscopic matter. M ajors should be prepared for immediate industrial employment, for entry into programs of professional study such as medicine, teaching and engineering, or for graduate study in chemistry or a related field. This mission suggests the following outcomes for our educational process. At the end of their studies, graduating majors should:

- have a working knowledge of the basic areas of chemistry (inorganic, organic, physical, and analytical chemistry). A working knowledge is demonstrated by understanding the language of chemistry and the ability to apply formal knowledge in a problem-solving environment.
- understand the relationships betw een microscopic structure and macroscopic properties, energy relationships, chemical and physical transformations, acid-base theory, and solution chemistry and be proficient in basic laboratory skills (e.g., preparing solutions, chemical and instrumental analysis, laboratory safety).
- have an understanding of principles and applications of modern instrumentation, computation, experimental design, and data analysis.
- have the ability to formulate and carry out strategies for solving scientific problems.
- develop experience working with others as part of a team to solve scientific problems.
- develop good scientific communication including writing, oral communication and presentation skills and the ability to access, read, understand and use scientific literature.
- have had the opportunity to gain experience with an individual research project within the university or in another appropriate setting.


## MAJOR IN CHEM ISTRY

## Requirements

Chem 220-230 General Chemistry I-II .. 8
Chem 310-311 Organic Chemistry I...... 4
Chem 320-321 Organic Chemistry II .... 4
Chem 340-341 Quantitative Analysis ... 4
Chem 410-411 $\begin{array}{ll}\text { Thermodynamics } \\ \text { and Kinetics ................... } 4\end{array}$
$\begin{array}{ll}\text { Chem } 430 & \text { Advanced Inorganic } \\ & \text { Chemistry ....................... } 3\end{array}$
Chem 485 Seminar .......................... 1
Chem 490
OR
498-499 Capstone ..................... 2-6
Math 226-227 Calculus I-II .................... 8
(Math 228 strongly recommended)
Physics - One year with laboratory
(Phys 232-242 recommended) ................... 8
46-50

> Note: For students planning to work as chemists or attend graduate school in chemistry the following courses should be included among the electives:

Chem 350-351 Instrumental Analysis ... 4
Chem 420-421 Quantum Chemistry and Spectroscopy
.4
Chem 498-499 Thesis ............................. 4
At least one of the following emphases must be fulfilled:
Chemistry
Biol 202 \& 204 General Biology I-II . ..... 8
Two upper-division chemistry electives (with lab if available, except Chem 385) ..... 6-8
Chemical Physics
Chem 420-421 Quantum Chemistry and Spectroscopy ..... 4
Phys 320-321 Modern Physics ..... 4
One upper-division Physics course from the following (Phys 364, 376, 380, 420, 460) ..... 3-4
OR
One additional upper-divisioncourse in Chem., Physics, or Math3-4
57-62
Biochemistry
Biol 202, 204 General Biology I and II ... .....  8
Chem 380 Biochemistry I ..... 3
Chem 480 Biochemistry II ..... 3
Chem 481 Biochemistry Lab ..... 1
60-66

At least six credits of upper-division chemistry, including at least one credit of chemistry laboratory must be taken at Pacific University. A course in computer science (CS 150 or 230) is also recommended.

## MINOR IN CHEMISTRY

## Requirements

Chem 220-230 General Chemistry I-II . 8
Chem 310-311 Organic Chemistry I ...... 4
Chem 320-321 Organic Chemistry II .... 4
Chem 340-341 Quantitative Analysis ... 4
Chem 385 Seminar .......................... 1

Elective:
Choose one of the following 3-4
Chem 350-351 Instrumental Analysis
Chem 380 Biochemistry
Chem 410-411 Thermodynamics and Kinetics
Chem 420-421 Quantum Chemistry and Spectroscopy
Chem 430 Advanced Inorganic Chemistry

24-25
At least one credit of upper-division chemistry laboratory, must be taken at Pacific University. Any student interested in a Chemistry minor should consult with a faculty member in the Chemistry Department.

## COURSE DESCRIPTIONS

## Chemistry (Chem)

## Chem 110 Chemistry for Nonscientists.

An introductory chemistry course for students who do not plan to take additional chemistry. Basic principles of chemistry are developed and used to explain phenomena of significance to our lives. Topics may include the structure and function of selected biological molecules, atmospheric chemistry, chemical sources of energy, and foods. 3 hours. Staff

## Chem 220 General Chemistry I

The first of a two semester sequence which introduces the basic concepts of chemistry by addressing: atomic and molecular structure, properties of materials, nomenclature, equilibrium, kinetics, thermodynamics, and electrochemistry. These topics are studied in the context of inorganic and organic chemistry. In addition to three lectures per week, the class meets three hours weekly for a laboratory or activity session. Prerequisite: Math 122 or equivalent. 4 hours. Staff.

## Chem 230 General Chemistry II

The second of a two semester sequence continuing from Chem 220. In addition to three lectures per week, the class meets three hours weekly for a laboratory or activity session. Prerequisite: Chem 220 (with a grade of C- or higher) and Math 125 or equivalent. 4 hours. Staff.

## Chem 240 Survey of Organic Chemistry

An introduction to the chemistry of the hydrocarbons and their principal derivatives. Meets physical therapy, optometry and nursing requirements. Prerequisite: Chem 230. 3 hours. Staff.

## Chem 241 Survey of Organic Chemistry Laboratory

Laboratory experience in the preparation and properties of organic molecules. Prerequisite: Chem 230. Co-requisite: Chem 240.1 hour. Staff.

## Chem 295 Independent Project

Work in chemistry and introduction to chemistry research on a topic of mutual interest to the student and a faculty member. This course may be repeated for credit or continued as Chem 495. Consent of instructor required. 1-3 hours. Staff.

## Chem 310 Organic Chemistry I

An integrated study of aliphatic and aromatic chemistry. Emphasis is placed on the mechanistic approach to understanding organic reactions. Prerequisite: Chem 230. 3 hours. Currie.

## Chem 311 Organic Chemistry Laboratory I

A laboratory course in organic chemistry concerned with the synthesis, isolation and purification of characteristic organic compounds including an introduction to the qualitative identification of unknown compounds. Prerequisite: Chem 230. Co-requisite: Chem 310. 1 hour. Currie.

Chem 320 Organic Chemistry II
A continuation of Chem 310, which is a prerequisite with a C- or better, 3 hours. Currie.

## Chem 321 Organic Chemistry Laboratory II

A continuation of Chem 311, which is a prerequisite. Co-requisite: Chem 320. 1 hour. Currie.

## Chem 340 Quantitative Analysis

An introduction to the theory and principles of volumetric, gravimetric, and colorimetric methods of analysis. Prerequisite: Chem 230 with a C- or better. 2 hours. Whiteley.

## Chem 341 Quantitative Analysis Laboratory

A laboratory course to accompany and give practical illustration to the principles covered in Chem 340, which is a co-requisite. 2 hours. Whiteley.

## Chem 350 Instrumental Analysis

An introduction to the theory and principles of instrumental methods of chemical analysis. Included are spectrophotometric, electrometric, and chromatographic methods. Prerequisite: with a C- or better, Chem 340 and Phys 204 or 242. 3 hours. Whiteley.

## Chem 351 Instrumental Analysis Laboratory

Laboratory experiences to augment and illustrate Chem 350, which is a co-requisite. Prerequisite: Chem 341 with a C- or better. 1 hour. Whiteley.

## Chem 380 Biochemistry I

An introduction to the chemistry of biological molecules with investigation of the structure and function of biological molecules in enzyme action, metabolism, energetics, and the flow of genetic information. Prerequisites: Biol 204 and either Chem 240 or Chem 320. 3 hours. Paar.

## Chem 385 Seminar

Participation in discussions about recent advances in the field of chemistry. May be taken twice for credit. P/NP. 1 hour. Currie.

## Chem 410 Thermodynamics and Kinetics

Presentation, discussion, and application of the laws of thermodynamics, including gas behavior, equations of state, phase transformations, chemical equilibria and kinetics. Prerequisite: Chem 230, Math 227 and Physics 204 or 242 all with C- or better. 3 hours. Johnson.

## Chem 411 Thermodynamics and Kinetics Laboratory

A laboratory course to accompany Chem 410, which is a co-requisite. 1 hour. Johnson.

## Chem 420 Quantum Chemistry and Spectroscopy

An introduction to quantum mechanics and its applications to chemistry including atomic structure, the chemical bond and spectroscopy. Prerequisite: Chem 230, Math 227 and Physics 204 or 242 all with a C- or better. 3 hours. Johnson. Alternate years Spring 2004.

## Chem 421 Quantum Chemistry and Spectroscopy Laboratory

A laboratory course designed to accompany Chem 420, which is a co-requisite. 1 hour. Johnson. Alternate years. Spring 2004.

## Chem 430 Advanced Inorganic Chemistry

An introduction to inorganic chemistry at an advanced level. Topics include atomic and molecular structure, symmetry, bonding theory, periodic correlations, acid-base theory, and the theory of metal-ligand interactions. Prerequisite: Chem 230. 3 hours. Gohdes. Alternate years. Spring 2003.

## Chem 440 Advanced Organic Laboratory

An advanced laboratory for majors and serious pre-professional students who require more practical laboratory experience than can be given in the introductory course sequence, Chem 311 and 321. Prerequisite: Chem 321. 3 hours. Currie. Alternate years. 2004.

## Chem 445 Reactivity Modeling

Practical application of computer modeling software to the determination of molecular properties and reactivity. Topics include both classical and quantum mechanical approaches. Prerequisite: Chem 310 or 240 (one semester of organic chemistry). 1 hour. Staff. 2004.

## Chem 450 Advanced Topics, Lecture

A lecture or laboratory course concentrating on a specific topic in chemistry at the advanced level. For example mass spectrometry, high field nuclear magnetic resonance, or protein - DNA interactions. Prerequisites depend on the topic. 1-2 hours. Staff

## Chem 480 Biochemistry II

Biochemistry II is designed to further explore the structure and function of biological molecules. The course may include some of the following topics: integration of metabolism, nucleic acid-protein interactions, cancer biochemistry, immunological biochemistry, biochemistry of neurotransmission, pharmaceutical drug design, and special topics in biophysics and biomolecular structure. Prerequisite: Chem 380 with a C- or better. 3 hours. Paar. Alternate years Spring 2003.

## Chem 481 Biochemistry Laboratory

This course will emphasize experimental design, development of biochemical laboratory techniques, data acquisition and interpretation and development of theoretical models. Important biochemical techniques that students may develop proficiencies include protein purification, execution of enzyme assays, development of spectroscopic an chromatographic methods, and cell culture methods. Corequisite: Chem 480, 1 credit. Paar. Alternate years, Spring 2003.

## Chem 485 Seminar

Designed to acquaint the science major with recent advances in chemistry and related fields as well as to provide experience in the preparation and oral presentation of science topics. May be taken twice for credit. 1 hour. Currie.

## Chem 490 Senior Project

A project which includes independent study and analysis of experimental and/or chemical literature information. Examples of acceptable projects include:

- A focused review of the literature that results in an original interpretation or novel application.
- A pedagogical project for students interested in pursuing a career in teaching.
- An internship at an industrial or government laboratory.
- A community service project which uses innovative application of chemical principles and technology.

The work will culminate in a paper and oral presentation. May be repeated once for credit. 2 hour. Staff

## Chem 495 Research

Independent laboratory studies or theoretical studies on projects of mutual interest to the student and faculty. This may be repeated for continuing or new projects. Consent of faculty required. 1-3 hours.

## Chem 498/499 Thesis

Students electing to do a thesis will engage in a substantial research project that will involve an investigation of the scientific literature and original research on a current topic in chemistry. The work will culminate in a written thesis and oral presentation. 2 hours each semester. Paar.

## EARTH SCIENCES

## ASTRONOMY COURSES

Sci 170 Astronomy
A survey of astronomy, including the solar system, stars and stellar evolution, galaxies, cosmology, astronomical instruments, and space science. Evening observing sessions. 3 hours. Hall.

## GEOLOGY COURSES

## Science (Sci)

## Sci $140 \quad$ Physical Geology

An introduction to the structure of the earth and dynamic earth-shaping processes including plate tectonics, rocks and minerals and the origin and evolution of landforms through volcanic activity, folding, faulting and erosion. Co- or prerequisite: Sci 141. 3 hours. Staff.

## Sci 141 Geology Laboratory

Laboratory experience to accompany Sci 140 and Sci 150, one of which must be taken concurrently. 1 hour. Staff.

## Sci $150 \quad$ Physical Geology

An introduction to the history of the earth beginning with the origin of the solar system and including the evolution of the continents, the evolution of life, geologic time and stratigraphy. Co- or prerequisite: Sci 141. 3 hours. Staff.

EDUCATION
(See the Graduate and Professional Programs Catalog for listing of faculty and description of programs.)

The undergraduate program allows a student to complete a bachelor's degree while simultaneously completing the requirements for an Oregon teaching license. Students are provided solid foundations in theory and content, as well as extended field experiences. They are prepared to nurture young peoples' intellectual, social, and moral growth and to appreciate diversity of cultures.

The program prepares students for an Oregon Initial Teaching License with authorizations at any of four levels: Early Childhood Education (age 3 to grade 4), Elementary Education (grades 3-8), M iddle School Education (grades 5-10), and High School Education (grades 7-12). Students are strongly encouraged to qualify for two adjacent authorization levels. Students who wish to qualify for the Early Childhood and Elementary authorizations will complete the Education and Learning major. Those who plan to teach at the Middle School or High School level will major in the subject area in which they wish to teach and complete the professional sequence of courses in the School of Education.

## EARLY CHILDHOOD \& ELEMENTARY EDUCATION

## Education \& Learning Major

The Education and Learning major is a joint offering of the College of Arts and Sciences and the School of Education. It is designed to provide students with a deep understanding of the psychological, developmental, and curricular foundations of education. This major builds a strong foundation for careers working with children and in various educational programs, including classroom teaching.

The Education and Learning major is recommended for students interested in pursuing a license for teaching in early childhood or elementary classrooms as a part of their undergraduate education at Pacific University. To obtain the Initial Oregon Teaching License as an undergraduate a student must apply for admission to the School of Education. The application for admission to the School of Education should be submitted at the end of the freshman year or at the beginning of the sophomore year. The application process may be accomplished as a part of the Educ 260 class. Licensure requires an additional 32 credits of professional coursework beyond the requirements of the major. Students interested in licensure should complete the recommended subject area coursework in writing, literature, science, mathematics, social science, and the arts as part of the core requirements or electives.
For those who do not want to obtain a teaching license as a part of their undergraduate education, a minor in a complementary subject area is recommended.

## Education and Learning Major

Phil 101 Knowledge and Reality ..... 3
Psy 150 Introduction to Psychology 3
Social Foundations
one of the following ..................................... 3
Anth $101 \begin{aligned} & \text { Introduction to Anthropol- } \\ & \text { ogy }\end{aligned}$
Soc 102 Social Problems
PolS 101 Power \& Community
Development
one of the following3

Psy $180 \quad$| Lifespan Human |
| :--- |
| Development |

Psy 318 Applied Human Development
Cognition
one of the following
Psy 225 Human Learning \& Motivation
Psy 248 Mind, Theory \& Method
Psy 315 Cognitive Neuroscience
Psy 352 Physiological Psychology

## Education <br> all of the following

Educ 260 Foundations of Education. 2
$\begin{array}{ll}\text { Educ } 300 & \begin{array}{l}\text { Introduction to Early } \\ \text { Childhood Education ......... } 4\end{array}\end{array}$
Educ 305 Learning Communities ...... 3
$\begin{array}{ll}\text { Educ } 361 & \begin{array}{l}\text { Foundations of Human } \\ \text { Development } \\ \\ \\ \text { \& Psychology ....................... } 3\end{array}\end{array}$
Educ 370 School and Society .............. 2
Educ 397 Field Experience .................. 2
$\begin{array}{ll}\text { Educ } 420 & \text { Normal Language } \\ & \text { Development ...................... } 2\end{array}$
$\begin{array}{ll}\text { Educ } 427 & \begin{array}{l}\text { Psychology of Reading } \\ \text { Instruction ........................... } 2\end{array}\end{array}$
Required capstone experience:
one of the following
Educ 490 Integrating Seminar ............ 6
Educ 475 Student Teaching .............. 15

## Required Professional Courses for Early Childhood \& Elementary School Authorizations

The following courses are required to qualify for the Oregon Initial Teaching License with authorizations for Early Childhood Education or Elementary Education. Some of these courses also fulfill requirements for the Education and Learning major.
Educ 305 Learning Communities: Personal Awareness and Diversity

3
Educ 370 School and Society .............. 2
Educ 361 Foundations of Human Development and Psychology
Educ 436 Technology across the $\begin{aligned} & \text { Curriculum ........................ } 2\end{aligned}$
$\begin{array}{ll}\text { Educ } 431 & \begin{array}{l}\text { Integrated Methods I: } \\ \text { General Methods ............... } 2\end{array}\end{array}$
Educ 408 Integrated Methods II: Reading and Language Arts in Early Childhood Education .4

## OR

Educ 444 Integrated Methods II:
Reading and Language Arts in Elementary Education ... 4

Educ 409 Integrated Methods IIIa: Math in Early Childhood Education

## OR

Educ 343 Integrated Methods IIIa: Math in Elementary Education 2

Educ 328 Integrated Methods IIIb: Science and Health in Early Childhood Education $\qquad$ 2 OR
Educ 329 Integrated Methods IIIb: Science and Health in Elementary Education2

Educ 410 Integrated Methods IV: Expressive Arts in Early Childhood Education2

## OR

Educ 445 Integrated Methods IV: Thematic Teaching through SS and the Arts 2
Educ 397 Field Experience ..... 1

Educ 459 Preparing the Work Sample
Educ 476 Learning Communities III: Reflection and Practice. .2
Educ 475 Student Teaching .............. 15

## MIDDLE SCHOOL AND HIGH SCHOOL LICENSURE

Students who plan to complete the requirements for the Middle School and High School authorizations should major in the content area in which they wish to teach, complete the required coursework in professional education, and successfully meet the requirements of student teaching. Students have the opportunity to qualify for both Middle School and High School authorizations. While qualification for both is not required, students are encouraged to do so. Those preparing to be teachers of art, music, and physical education are required to qualify for two levels of authorization consistent with OARs 584-060-0030. To obtain the Initial Oregon Teaching License as an undergraduate a student must apply for admission to the School of Education. The application for admission to the School of Education should be submitted at the end of the freshman year or at the beginning of the sophomore year.

Programs are available to enable students to meet the requirements for the following subject area teaching endorsements: Art, Foreign Languages (French, German, Japanese, and Spanish), Language Arts, Mathematics (Middle School and Advanced), Music, Physical Education, Science (Biology, Chemistry, Integrated Science, and Physics), and Social Studies.
Following are the requirements that students seeking a subject area endorsement in the Middle School and High School authorizations must meet outside of the education sequence offered by the School of Education:

- Art (Must meet the requirements for two levels of authorization): A major in art. A Computer Graphics or Illustration course is recommended.
- Biology: A major in Biology, including Human Anatomy, Human Physiology, and Invertebrate Zoology.
- Chemistry: A major in Chemistry.
- Foreign Languages: A major in Foreign Language. Primary language must be selected from French, German, Japanese, or Spanish.
- Integrated Science: Students complete a major from the Natural Science Division and work with their advisor in Education to develop a program that includes broad basic coursework in Biology, Chemistry, and Physics as well as Geology, Astronomy, and Meteorology.
- Language Arts: A major in Literature or Creative Writing including a Shakespeare course, a course on the theory of literature, a course in Linguistics, and two courses in Oral Expression.
- Mathematics,Middle School: Mathematics sequence through Calculus I, including Statistics and a computer programming course. Sufficient course work to pass the appropriate PRAXIS test
- Mathematics, Advanced: A major in Mathematics including courses in Probability, Higher Geometry, and Abstract Algebra.
- Music (Must meet the requirements for two levels of authorization): A major in Music Education.
- Physical Education (Must meet the requirements for two levels of authorization): A major in Exercise Science with an emphasis in Human Performance.
- Physics: A major in Physics including courses in Thermodynamics and Geometric Optics.
- Social Studies: A major in a social science, including history. Students work with their Education advisor to develop a program that provides the breadth of knowledge necessary to teach social studies at the secondary level. This includes at least 3 courses of non-U.S. history, political science, sociology, psychology or anthropology; 3 courses in U.S. History; 2 courses in Politics and Government; 2 courses in Economics; Cultural Geography; and one course in contemporary issues.


## Required Professional Courses for Middle School \& High School Authorizations

$\begin{array}{ll}\text { Educ } 305 & \begin{array}{l}\text { Learning Communities: } \\ \\ \\ \\ \text { Personal Awareness } \\ \text { and Diversity ...................... } 3\end{array}\end{array}$
Educ 370 School and Society .............. 2
Educ 361 Foundations of Human Development and Psychology .3
Educ 436 Technology across the Curriculum .2

Educ 327 Teaching and Assessment in the Middle School .3 OR
Educ 326 Teaching and Assessment in the High School .3
Educ $314 \quad \begin{aligned} & \text { Reading and Writing across } \\ & \text { the Curriculum ................. } 2\end{aligned}$ Special Methods (in appropriate content area) 3

Educ 302 Teaching Art in the Middle and High School
Educ 303 Teaching Music in the Middle and High School OR
Mus 302 Music in the Secondary School (Choral)
OR
Mus 303 Music in the Secondary School (Instrumental)

Educ 338 Teaching Science in the Middle and High School
Educ 339 Teaching PE in the Middle and High School
Educ 349 Teaching Math in the Middle and High School
Educ 447 Teaching Foreign Language in the Middle and High School
Educ 451 Teaching Social Studies in the Middle and High School
Educ 452 Teaching Language Arts in the Middle and High School
Educ 397 Field Experience .1

| Educ 459 | Preparing the |
| :--- | :--- |
|  | Work Sample ....................... 2 |

Educ 476 Learning Communities III: Reflection and Practice ....... 2
Educ 475 Student Teaching .............. 15

## ADM ISSION

Prior to taking coursework necessary for teacher licensure, students must be admitted to the School of Education. Students who wish to enter a teaching career should consult with the Coordinator of the Undergraduate Education Program early in the freshman year, and should take the introductory education course, Educ 260, Foundations of Education, by fall of the sophomore year. Application to the School of Education may be accomplished as a part of the Educ 260 class.

## Admission requirements include:

- 2.75 minimum GPA (cumulative and endorsement)
- Passing score on one of the following: California Basic Educational Skills Test (CBEST), PRAXIS Pre-Professional Skills Test (PPST), or PRAXIS Computer-Based Academic Skills Assessment (CBT)
- Academic and pre-professional recommendations
- Personal interview and writing sample to be completed at time of interview


## CONTINUATION IN THE PROGRAM

Students must maintain a 2.75 minimum GPA in all professional education and endorsement area coursework with no grade lower than a "C"; a "C-" is not acceptable. Students must complete all required coursework before student teaching.
Students must take all required tests before student teaching.

## REQUIREMENTS FOR PROGRAM COMPLETION

Students must complete all coursework with satisfactory grades.
Students must complete field experience, required practica, and student teaching with a grade of Pass.
Students must complete requirements for two work samples. Requirements include preparation, teaching, and a satisfactory evaluation.
Students must pass all applicable tests required for licensure.

## ENGINEERING

## 3-2 ENGINEERING, COOPERATIVE PROGRAM

Contact Dr. Fehrs or Dr. Wiener

Pacific currently has a formal cooperative program with Washington University in St. Louis, and informal programs with other schools including Oregon State University, Washington State University, and Portland State University. A complete range of engineering specialties is available through these schools including aeronautical, chemical, civil, electrical, mechanical, and nuclear engineering. Requirements for admission to these programs are unique to each school, but admission will usually be assured for those students who maintain a "B" average and who are recommended by the Division of Natural Sciences. Program details for the various engineering schools are available from professors Dr. Fehrs or Dr. Wiener.

The program is designed as a 3-2 transfer program in which the student spends three years at Pacific obtaining the necessary background in science and mathematics and then transfers to the engineering school for the final two years of professional training. In addition, the program provides for an appropriate breadth in humanities and social sciences which is desirable for scientists in industry. Upon completion, the student receives a B.S. from Pacific and a B.S. in engineering from the engineering school. Engineering schools perceive that students who come into engineering from a liberal arts background frequently have a broader perspective than the average engineering student.

## Requirements

In addition to Pacific's core requirements, students planning on a cooperative program are advised to complete the courses listed below. However, specific requirements may depend upon the particular institution to which the student transfers. They must also complete all other requirements for a B.S. degree with a major of their choice. Normally this major will be Applied Science because of its obvious overlap with a professional engineering program. However, with careful planning, other majors are possible, particularly physics or mathematics. With prior approval, select professional courses may be used to meet some major requirements.

Chem 220-230 General Chemistry I-II .. 8
C.S. 150 Introduction to Computer

Science I ......................... 4
Math 226-228 Calculus I-III................. 12
Math 204 Discrete Math ................. 3
Math 311 Differential Equations ... 3
$\begin{array}{ll}\text { Phy 232-242 } & \text { General (Workshop) } \\ & \text { Physics I-II ..................... } 8\end{array}$
$\begin{array}{ll}\text { Phy } 322 \text { Modern Physics with } \\ & \text { Health Applications ...... } 4\end{array}$
Phy 332 Waves and Optics .......... 4
Phy 380 Classical Mechanics $\quad$ in Dynamics .................. 4
Phy 376 Engineering Mechanics:
Statics ............................. 3
OR Phy 364 Electronics ................. 3/4
53 or 54
The student must also successfully complete 30 semester credits in engineering courses taken in an accredited engineering program, which may be transferred back to Pacific University. At least 20 of these credits must be at the upper-division level.

## ELECTRICAL ENGINEERING COOPERATIVE PROGRAM

Contact Dr. Fehrs or Dr. Wiener

This is a five-year program involving four years at Pacific and one year at the Oregon Health Sciences University (OHSU). The student will normally receive a baccalaureate degree in physics from Pacific at the end of the fourth year and a Master of Science degree in Electrical Engineering from OHSU at the end of the fifth year. A few courses may be taken at OHSU while the student is still enrolled at Pacific.
While at Pacific the student will complete all required courses for the physics major as well as the pre-engineering requirements listed above. Within the electives in the physics major program, it is recommended that the student complete Physics 384 (Thermodynamics). Physics 364 (Electronics) as part of the pre-engineering requirements.

## Course Descriptions

## Sci 190 Engineering Passport

An introduction to the fields of engineering, with an emphasis on the methods of problems solving and the nature of employment in these fields. Course activities include presentations, discussions, guest lectures, field trips, and problem-solving exercises. 1 hour. Fehrs, Wiener.

## ENGLISH

Michael R. Steele, Distinguished University Professor and Chair

Pauline Beard, Associate Professor
Lorelle Browning, Professor
Darlene Pagán, Assistant Professor
Kathlene Postma, Assistant Professor
Steve Smith, Instructor, Director of Resource Center, Coordinator of First Year Seminar
Tim Thompson, Assistant Professor
Doyle W. Walls, Associate Professor
*Indicates part time
The English Department offers the general student guidance in acquiring and developing the skills for critical thinking and clear writing. For students choosing to specialize in Literature or Creative Writing, the curriculum offers the opportunity to engage the literary tradition of British and American writing, as well as world literatures, and to enter into the theory and practice of literature itself. The general student is also welcome to explore the world of letters in any courses the department offers, provided he or she has fulfilled departmental prerequisites.

In particular, the English Department seeks to teach students the following:

- to develop skills that allow them to engage in reflective critical reading;
- to understand and engage the principles of literary analysis and the evolving tradition of literature and writing in English;
- to articulate their responses, ideas, and analyses clearly and powerfully;
- to cultivate speaking skills in both formal and informal settings;
- to recognize the various contexts that shape texts and our responses to them;
- to examine how meaning is constructed in various genres, traditions, periods, and cultures;
- to consider the ethical questions that confront the writer and reader as creators and consumers of texts and as members of society.
The faculty of the English Department brings to its teaching a wide range of experience, training, and perspectives; students benefit from exposure to a variety of teaching styles and approaches to the reading, writing, and enjoyment of literature. Each member of the department brings his or her passions into the classroom: we all write creatively - and remain active in the larger community of writers and scholars - presenting or publishing scholarship, poetry, fiction, drama, or essays.

Students may choose to major or minor in Creative Writing or Literature. Both emphases encourage students to do interdisciplinary work, to recognize the connections between the study of literature and the w ork they do in other fields as they seek a liberal arts education. Creative Writing majors and minors are required to take part in editing and publishing the Pacific Review, the University literary magazine sponsored by the department. Literature majors and minors, as well as general students, are encouraged to take advantage of this opportunity to " produce" literature as well. (In addition to offering the community the work of resident writers, the department also presents readings and lectures by noted visiting poets and writers.) Our majors go on to graduate school; teach in high schools and colleges; and use their thinking and writing skills in television, publications, technical writing, insurance, administration, law, library science, special education, and social work. They also go on to give readings of their own.

## MAJOR IN CREATIVE WRITING

## Requirements

One course from: 3-4
Engw 201 Expository Writing (Some sections focus on a particular theme.)
Engw 301 Advanced Expository Writing

| Two courses from: ..................................... 6 |  |
| :--- | :--- |
| Engw 206 | Introduction to Creative <br>  <br> Writing, Poetry |
| Engw 207 | Introduction to Creative <br>  <br> Writing, Mixed Genre |
| Engw 208 | Introduction to Creative <br>  <br> Writing, Fiction |
| One course from:...................................... 3 |  |

## Engw 497/498

Senior Seminar in Creative Writing .4
Engw 465 Editing Pacific Review (Pass/No Pass) ..... 2
*Requires world language proficiency.
At least one course (3 hours) from the above requirements must be in American literature.

## Recommended courses for Major in Creative Writing:

Art 218/318 Computer Graphics ..... 3
Art 235 Illustration ..... 3
Engl 343 Studies in Criticism and Theory ..... 3
Hist. 300+ An upper-division history course ..... 3
Phil 101 Knowledge and Reality ..... 3
or Phil 110 Religion and the Quest for Meaning ..... 3
OR Phil 214 Philosophy of Art ..... 3
WorL 101-202World LanguagesStudy3-12
18-27

Admission Procedures for the Creative Writing Major: Students desiring to pursue a Creative Writing Major may apply for admission after completing the following prerequisite coursework: English 201 and two 200-level introductory creative writing workshops. To apply, students must submit a creative manuscript to the faculty; the manuscript can be fiction, poetry, personal essay, and / or drama, and should be no more than ten pages in length. It should be accompanied by a 250 -word statement of purpose. Students are encouraged to apply for admission to the Major between the second half of their sophomore year and the first half of their junior year.
Students interested in Creative Writing should consult Professors Postma or Walls.

## MAJOR IN LITERATURE

## Requirements

One course from: ..... 3-4
Engw 201 Expository Writing (Some sections focus on a particular theme.)
Engw 301 Advanced Expository Writing
One course from: ..... 3
Engw 206 Introduction to Creative Writing, Poetry

Engw 207 Introduction to Creative Writing, Mixed Genres
Engw 208 Introduction to Creative Writing, Fiction

Two courses from:
Engl 200 Introduction to Literature
Engl 220 Literature and Human Concerns (Topics Vary)
Engl 227 Introduction to
Engl 229 Introduction to American Literature
Engl 232 Introduction to British
Engl 255 (Topics Vary)
Engl 323 Shakespeare
Two courses from:
Engl 416 British Literature, Beowulf to 1660
Engl 418 British Literature: 1660-1790
Engl 421 The Romantic Period
Engl 422 The Victorian Period
Engl 423 Nineteenth Century American Literature
Engl 425 Twentieth Century Literature
Engl 430 Major Writers (specific authors vary)
Engl 455 (topics vary)

| Two courses from: .............................. 6-8 |  |
| :---: | :---: |
| Engl 340 | Studies in Drama |
| Engl 341 | Studies in Poetry |
| Engl 342 | Studies in Fiction |
| Engl 343 | Studies in Criticism and Theory |
| WorL | Upper-division course in a world language (only one course can be used for this requirement)* |
| PACS 411 | Literature About War |
| Engl 495/496Senior Seminar |  |
| One upper-division history course ...... 3-4 |  |
| One course chosen from: <br> Phil 101, 110, 205, 206, 207, <br> $208,214,303,309^{* *}$, or $403^{* *}$ $\qquad$ 3-4 |  |
|  | 34-42 |
| * requires world language proficiency |  |
| **check prerequisites |  |
| At least one course ( 3 hours) from the above requirements must be in American literature. |  |
| MINOR IN CREATIVE WRITING |  |
| Requirements |  |
| One course from: ................................ 3-4 |  |
| Engw 201 | Expository Writing (Some sections focus on a particular theme.) |
| Engw 301 | Advanced Expository Writing |
| Two courses from: ................................. 6 |  |
| Engw 206 | Introduction to Creative Writing, Poetry |
| Engw 207 | Introduction to Creative Writing, Mixed Genres |
| Engw 208 | Introduction to Creative Writing, Fiction |
| One course from: ................................ 3-4 |  |
| Engl 200 <br> Engl 220 | Introduction to Literature |
|  | Literature and Human Concerns (Topics Vary) |One upper-division history course3-4

Phil 101, 110, 205, 206, 207, 208, $214,303,309^{* *}$, or $403^{* *}$ ..... 3-434-42
**check prerequisites
At least one course (3 hours) from the above re- quirements must be in American literature.
MINOR IN CREATIVE WRITING
RequirementsEngw 201 Expository Writing (Somesections focus on aparticular theme.)Expository WritingTwo courses from:6
Introduction to Creative 左Engw 207 Introduction to CreativeWriting, Mixed GenresWriting, FictionOne course from:3-4Engl 220 Literature and HumanConcerns (Topics Vary)

| Engl 227 | Introduction to World Literature |
| :---: | :---: |
| Engl 229 | Introduction to American Literature |
| Engl 232 | Introduction to British Literature |
| Engl 255 | (Topics Vary) |
| Engl 323 | Shakespeare |
| One course from: .................................... 4 |  |
| Engw 306 | Advanced Poetry Writing |
| Engw 308 | Advanced Fiction Writing |
| Engw 310 | Advanced Drama Writing |
| One course from: ................................. 3-4 |  |
| Engl 340 | Studies in Drama |
| Engl 341 | Studies in Poetry |
| Engl 342 | Studies in Fiction |
| Engw 465 | Editing Pacific Review <br> (Pass/No Pass) $\qquad$ |
|  | 20-23 |
| Students interested in Creative Writing should consult Professors Postma or Walls. |  |
| MINOR IN LITERATURE |  |
| Requirements |  |
| One course from: ................................. 3-4 |  |
| Engw 201 | Expository Writing (Some sections focus on a particular theme.) |
| Engw 301 | Advanced Expository Writing |
| Two courses from: .................................. 6 |  |
| Engl 200 | Introduction to Literature |
| Engl 220 | Literature and Human Concerns (Topics Vary) |
| Engl 227 | Introduction to World Literature |
| Engl 229 | Introduction to American Literature |
| Engl 232 | Introduction to British Literature |
| Engl 255 | (Topics Vary) |

Three courses from:
9-12

Engl 323 Shakespeare
Engl 340 Studies in Drama
Engl 341 Studies in Poetry
Engl 342 Studies in Fiction
Engl 343 Studies in Criticism and Theory
Engl 416 British Literature, Beowulf to 1660
Engl $418 \quad$ British Literature: 1660-1790
Engl 421 The Romantic Period
Engl 422 The Victorian Period
Engl 423 Nineteenth Century American Literature
Engl 425 Twentieth Century Literature
Engl 430 Major Writers
(Specific Authors Vary)
Engl 455 (Topics Vary)
PACS 411 Literature About War

18-22

## COURSE DESCRIPTIONS

## Writing (Engw)

Only Engw 201 and Engw 301 satisfy the writing skills core requirement.

## Engw 101 Basic Expository Writing

A course devoted to basic writing skills and principles - punctuation, sentence structure, and grammar - and to developing short essays. Graded P/NP. 3 hours.

## Engw 150 Basic Expository Writing II

A course designed to refine basic writing skills and develop organizational skills for longer essays. 3 hours.

## Engw 201 Expository Writing

An expository writing course in which various topics and genres are used to help students develop and evidence critical thinking skills, understand rhetorical methods, and shape effective prose styles. Students will be writing expository essays and a research paper. Some sections focus on a particular theme. 3 hours. Staff.

[^0]
## Engw 207 Introduction to Creative Writing, Mixed Genres

An introduction to writing in two or more of the following genres: short fiction, drama, poetry, and the personal essay. Prerequisite: College writing skills core requirement met. 3 hours. Pagán, Postma, Steele, Walls.

## Engw 208 Introduction to Creative Writing, Fiction

An introduction to writing fiction. Prerequisite: College writing skills core requirement met. 3 hours. Postma.

## Engw 301 Advanced Expository Writing

An upper-level course providing an overview of the history and theory of rhetoric from Aristotle to James Berlin, and of selected classics of the essay genre from Seneca to Annie Dillard. Engw 301 also gives students the opportunity to articulate their own mature ideas and to refine their higher-level writing skills. May be repeated once for credit with permission of the department. Prerequisite: Engw 201 and consent of instructor. 4 hours. Beard, Thompson. (G)

Note: 300-level advanced creative writing workshops require demonstrated experience and ability in creative writing and are designed for Creative Writing majors and minors. Thus, the following prerequisites apply to all advanced creative writing workshops: Satisfactory completion of two lower-division creative writing courses and faculty consent. We also recommend that students be of Junior standing when they enroll in these courses. Other students interested in taking these courses should consult the individual instructor but cannot be guaranteed admissionto the course.

## Engw 306 Advanced Poetry Writing

A workshop for writing and discussing poetry. May be repeated. Prerequisite: College writing skills core requirement met, two courses from Engw 206, 207, or 208, and faculty approval. 4 hours. Walls. (G)

Engw 308 Advanced Fiction Writing
A workshop for writing and discussing fiction. May be repeated. Prerequisite: College writing skills core requirement met, two courses from Engw 206, 207, or 208, and faculty approval. 4 hours. Postma. (G)

Engw 310 Advanced Drama Writing A workshop for writing and discussing drama. May be repeated. Prerequisite: College writing skills core requirement met, two courses from Engw 206, 207, or 208, and faculty approval. 4 hours. Staff. (G)

## Engw 465 Editing Pacific Review

A course in which students assist the student editor-in-chief in selecting, editing, and laying out examples of community writing. Graded $P$ / NP. May be repeated. 1 hour. Postma, Walls.

## Engw 497/498 Senior Seminar: Creative Writing

Students in this capstone experience for creative writing majors will discuss the historical experience of the creative writer, and the condition, role, and production of literature in contemporary society as they prepare and revise a reflective essay on the creative process and finally compose a significant manuscript of original work in poetry, fiction, personal essay, or drama; all students will present their manuscripts in a public reading. Prerequisite: Senior standing and one upper-division course from 306, 308, or 310. 2 hours per semester. Postma, Walls.

## Literature (Engl)

## Engl 200 Introduction to Literature

An introduction to the study of literature by examining fiction, poetry, drama, and essays from various periods and countries. 3 hours. Staff.

## Engl 220 Literature and Human Concerns

A study of important ideas and problems as they are reflected in the world's literature. War, racism, death, censorship, film, civil disobedience, minority literature, and the Holocaust are examples of characteristic topics. May be repeated more than once when content varies. 3 hours. Staff.

## Engl 227 Introduction to World Literature

An introduction to literature drawn from Western and non-Western cultures, organized around a theme, a literary problem, or the examination of a political condition. Ordinarily, the reading lists will include several genres. Meets cross-cultural requirement. 3 hours. Pagán.

## Engl 229 Introduction to American Literature

An introduction to selected American authors and themes. 3 hours. Thompson.

## Engl 232 Introduction to British Literature

An introduction to selected British writers and themes. 3 hours. Beard, Browning, Steele.

NOTE: 300-level courses demand that students have familiarity with the close analysis of literature; one lower-division literature course is prerequisite, and we recommend that students be of Junior standing when they enroll for these courses. All upper-division literature courses are offered at 3 or 4 hours of credit, depending upon instructor's choice; note minimum course and hour requirements for majors and minors within the department.

## Engl 323 Shakespeare

An analysis of Shakespeare's major plays with emphasis on both literary and theatrical qualities. Prerequisite: one lower-division literature course. 3 or 4 hours. Beard, Browning, Steele. (G)

## Engl 332 Introduction to Linguistics

An introduction to the principles, methods, and basic vocabulary of modern linguistic theory, with emphasis on the elements of phonology, morphology, and modern grammatical theory. Provides a basic introduction to the history and structure of English, but examples are drawn from a variety of languages. No previous language training necessary. 3 hours. Fujita. Offered every year.

## Engl 340 Studies in Drama

The reading and analysis of chief European and American playwrights from the authors of the morality plays to the present, with some consideration of the dramaturgy involved in the production of the plays. Prerequisite: one lower-division literature course. 3 or 4 hours. Beard, Browning, Thompson. (G)

## Engl 341 Studies in Poetry

An upper level introduction to reading poetry, with an emphasis on structure, traditional models, periods, and interpretation. Prerequisite: one lower-division literature course. 3 or 4 hours. Walls. (G)

## Engl 342 Studies in Fiction

A study of the development of the short story and novel, with an emphasis on exploring interpretive models. Prerequisite: one lower division literature course. 3 or 4 hours. Beard, Postma, Steele. (G)

## Engl 343 Studies in Criticism and Theory

A study and application of some of the critical and theoretical approaches used in the study of literature. Prerequisite: one lower-division literature course. 3 or 4 hours. Pagán, Steele. (G)

Note: 400-level courses are the most advanced courses offered by the Department: they are designed for juniors and seniors. Two literature courses are prerequisite, and we recommend that students have completed at least one 300-level literature course. All upper-division literature courses are offered at 3 or 4 hours of credit, depending upon instructor's choice; note minimum course and hour requirements for majors and minors within the department.

## Engl 416 British Literature: Beowulf to 1660

Intensive studies in the period to include such figures as the author of Beowulf, Chaucer, Shakespeare, Spenser, Milton, Donne, Marvell, Congreve. The focus changes from time to time to include drama or prose or lyric poetry. Prerequisite: two literature courses and Junior standing. 3 or 4 hours. Browning. Offered alternate years. (G)

Engl 418 British Literature: 1660-1790 Investigates major works of the Restoration and eighteenth century and is focused to explore central philosophical, intellectual, or cultural themes of the period. Prerequisite: two literature courses and Junior standing. 3 or 4 hours. Browning. Offered alternate years. (G)

## Engl 421 The Romantic Period

An advanced study of the poetry and poetics and prose of the Romantic Period of British Literature, with special emphasis on the affects on a variety of poets of the emerging Industrial Revolution, the French Revolution and its aftermath, and new paradigms of thought in the way people perceived nature and gender roles, among other topics. 3 hours. Steele. Offered alternate years.

## Engl 422 The Victorian Period

An advanced study of several literary genres during the Victorian Period of British Literature
(1837-1901), with special emphasis on the affects on authors of the triumph of the Industrial Revolution, the rise of Darwin's theories, the challenges to religious and social orthodoxies, and changes in aesthetics, among other topics. Authors to be studied could include such figures as Austen, Dickens, Eliot, Tennyson, the Rossettis, Arnold, Swinburne, Hopkins, Ruskin, Shaw, Gissing, the Brownings, Mill, and others. 3 hours. Steele. Offered alternate years.

## Engl 423 Nineteenth Century American Literature

Intensive study in the period to include such writers as Irving, Poe, Hawthorne, Emerson, Thoreau, Dickinson, Whitman, Gilman and the literature of slavery and abolition. Prerequisite: two literature courses and Junior standing. 3 or 4 hours. Thompson. (G)

## Eng1 425 Studies in Twentieth Century Literature

Intensive studies in major writers of the period. Prerequisite: two literature courses and Junior standing. 3 or 4 hours. Beard, Pagán, Postma, Steele, Walls. (G)

## Engl 430 Major Writers

A detailed study of the works of selected writers: for example, Chaucer, Milton, Dickens, Blake, Yeats, Thoreau, Woolf. Prerequisite: two literature courses and Junior standing. May be repeated once for credit when content varies. 3 or 4 hours. Staff. Offered intermittently.

## Eng1 495/496 Senior Seminar: Literature

Students in this capstone experience for literature majors will discuss the state of literature, criticism, and writers in contemporary society, reflecting on the tradition of literature and literary study, and develop, present, and critique original critical work. Students will produce a 20-30 page thesis, with annotated bibliography, and present their work publicly. Prerequisite: Senior standing. 2 hours per semester. Beard, Browning, Pagán, Steele, Thompson.

Note: In addition, PACS 411 may be counted toward the major and minor in Literature.

## ENVIRONMENTAL STUDIES PROGRAM

Deke Gundersen, Director, Assistant Professor
Edmond Alkaslassy, Assistant Professor
Pamela Lopez, Associate Professor
Jodi Paar, Assistant Professor

Philip J. Ruder, Associate Professor

Lisa Sardinia, Associate Professor
Robert E. Stockhouse II, Professor
Robert Van Dyk, Associate Professor

The Environmental Studies Program in the College of Arts and Sciences provides students with modern environmental science degrees in the context of a liberal arts and sciences curriculum. In these programs, students and faculty have an opportunity to pursue varied interests in this broad and multidisciplinary field. The faculty guiding the program are in the traditional disciplines of biology, chemistry, and environmental science but who choose to apply their knowledge to environmental problems that cross-disciplinary boundaries.

The Environmental Studies Program offers a degree in Environmental Science with an emphasis in either Biology or Chemistry. The Environmental Biology emphasis focuses on field and laboratory approaches to understanding environmental and ecological problems. The principal uniqueness of the environmental biology emphasis can be found in the integration of interdisciplinary core courses with a mission oriented, problem-solving methodology. Pacific University students majoring in Environmental science with an emphasis in Biology study in the unique surroundings of the Tualitin River Basin, Pacific's John Blodgett Arboretum, the Columbia River and Tillamook Estuaries, and Fernhill Wetlands (300 acres), which is located in Forest Grove. Students completing this major have the analytical skills and technical background necessary to compete in the job market for environmental biology positions, or to continue with advanced studies in a graduate program.

The Environmental Chemistry emphasis couples a core study in Chemistry with specific environmental science and policy courses. The core courses provide a theoretical background for understanding the chemical processes that control the distribution of contaminants in the environment. The program emphasizes an understanding of atmospheric, groundwater and aquatic chemistry and includes the analytical and statistical methods to study them. Field activities in a variety of nearby study areas are included. Students graduating with this major are well qualified to directly enter the job market and will have excellent credentials for entry into various related graduate programs.

Visit the Environmental Studies web site at http:// www.envsci. pacificu.edu/ or through the main web site at http://www.pacificu.edu.

## GOALS FOR THE MAJOR

By successfully completing a major in environmental science, students will be able to:

- Demonstrate conceptual understanding of fundamental environmental principles.
- Communicate effectively in the discipline in oral and in written form.
- Be able to think critically and synthesize information from a variety of different sources.
- Consider social, political, and economic views when dealing with environmental problem solving.
- Conduct independent research or work successfully in a technical position.


## MAJOR IN <br> ENVIRONMENTAL SCIENCE

## Biology emphasis

## Requirements

Ensc 100 Environmental Studies $\quad \begin{array}{ll}\text { Seminar .............................. } 1\end{array}$
Ensc 200 Our Global Environment ... 4
Ensc 301 Environmental Toxicology .. 4
Ensc 490 Environmental Science Capstone2
Pols 224 Environmental Politics ..... 3
Recommended:Introductory Physics or General Physics
An introductory statistics course
Calculus I and II
Chemistry Emphasis
Requirements
Ensc 100 Environmental Studies Seminar ..... 1
Ensc 200 Our Global Environment ... 4
Ensc 310 Environmental Chemistry .. 4
Ensc 490 Environmental Science Capstone ..... 2
Pols 224 Environmental Politics ..... 3
Econ 102 Principles of Microeconomics ..... 3
Econ 333 Environmental Economics. 3
Chem 220-230 General Chemistry I-II ..... 8
Chem 310-311
Chem 320-321 Organic Chemistry I-II ..... 8
Chem 340-341 Quantitative Analysis ..... 4
Chem 350-351 Instrumental Analysis ..... 4
Either Physics 202-204
OR
Physics 232-242 ..... 8
Math 226 Calculus I ..... 4
Biol 202-204 General Biology I-II ..... 8
Restrictions: In order to receive an Environmental Science degree with an emphasis in Chemistry from Pacific University a student must complete Ensc 490 Capstone Experience, Ensc 310 Environmental Chemistry, and at least 3 upper division courses.

## Recommended:

Environmental Toxicology
Thermodynamics and Kinetics
Advanced Inorganic Chemistry
Biochemistry
Calculus II
Molecular Biology

## MINOR IN ENVIRONMENTAL SCIENCE

The minor in environmental science is designed to expose students to the interdisciplinary nature of environmental issues, with emphasis on the current scientific methods used to study these issues. This minor is intended to provide students with a firm foundation in the language, concepts, and methods of Environmental Science as well as perspectives on current issues concerning the environment. While this minor emphasizes the fundamentals of natural and applied environmental science, this minor also incorporates 3-7 credit hours outside of these areas to help students gain a better appreciation for the interdependent nature of human behavior and environmental health.
Any student who is interested in the relationship between humans and their environment is encouraged to participate. Students from a wide-range of primary disciplines, from the sciences to the social science, humanities, business, and arts, may benefit from this minor area of specialization.

## Requirements:

| Ensc 100 | Environmental Science <br> Seminar .......................... 1 <br> Ensc 200 <br> Global Environment .......... 4 |
| :--- | :--- |

## Electives:

Choose one course from the electives in environmental policy and two courses from the electives in environmental science. Note, two of these courses must be at the 300 level or above.

## Environmental Policy

Pols 224 Environmental Politics ....... 3
Econ 333 Environmental Economics. 4
(Prerequisite: Econ 102; 3 credits)

## Environmental Science

Ensc 310 Environmental Chemistry .. 4
(Prerequisites: Chem 220/
221, Chem 230/231, Chem
240/241 or Chem 320/321;
12 credits)

Ensc 301

Phy 322 Modern Physics with Health Applications
(Prerequisites: Phy 202 or 232, Phy 204 or 242, Math 226 \& 227; 16 credits)

## MINOR IN <br> ENVIRONM ENTAL POLICY

The rapid development of the industrial economies has often occurred at the expense of the natural environment. Citizens of rich countries increasingly demand healthy environmental conditions. Governmental authorities, private businesses, and nonprofits face the challenge of mitigating past damage and creating new modes of production that entail smaller environmental costs. The environmental policy minor seeks to educate students to effectively participate in decisions that affect scarce environmental resources.
The consideration of environmental issues requires knowledge drawn from a variety of disciplines spanning the natural and social sciences and the humanities as well. Students with minors in environmental policy will possess basic knowledge of environmental science, economics, politics, history, and ethics. In addition to the understanding of environmental issues, students will gain expertise in the practical skills employed by environmental policymakers. Such skills include proficiency in spreadsheet analysis, GIS mapping, and lab sciences.

## Requirements:

| Ensc 100 | Environmental Studies <br> Seminar ........................ 1 |
| :--- | :--- |
| Ensc 200 | Our Global Environment ... 4 |
| Biol 202 | General Biology I .............. 4 |
| Econ 102 | Principles of <br> Microeconomics .................. 3 |

Ensc 200 Our Global Environment ... 4
Biol 202 General Biology I ................ 4
Econ 102 Principles of Microeconomics 3
Econ 333 Environmental Economics ..... 4
PolS 224 Environmental Politics ..... 3
PolS 325 Constitutional Law ..... 4
Hist 441 Environmental History ..... 3
26-27
ENVIRONMETAL SCIENCE AND ENGINEERING COOPERATIVE
PROGRAM

Contact Deke Gundersen

The Environmental Science departments at Pacific University and the Oregon Health \& Science University (OHSU) have created a joint 4-1 program requiring five years of study for the well-prepared student, 4 years at Pacific University and 1 year at (OHSU). Degrees awarded are a baccalaureate degree in Environmental Science from Pacific University, and a Master of Science degree in Environmental Science and Engineering from the Oregon Health \& Science University. At OHSU, students may pursue M.S. tracks (areas of emphasis) in environmental science and engineering (ESE), ecosystem management and restoration (EMR), or environmental information technology (EIT) Upon completion of the 5-year program, the two degrees will be awarded concurrently.
Highly motivated and well-prepared students apply for the program during their sophomore or junior year. Pacific students majoring in environmental science, chemistry, biology, mathematics, computer science, and physics are eligible to apply. Students must have at least a 3.0 cumulative grade-point average to be considered for this program. Students must maintain a 3.0 cumulative grade point average (GPA) while in this program. If a student falls below a 3.0 cumulative GPA, he or she will have the following semester to improve their GPA. Students in this situation must meet with the appropriate advisors from Pacific and OHSU to discuss what will be required in order to maintain their standing in the Environmental Science and Engineering, Cooperative Program. Students will be expected to meet the curriculum requirements outlined below.

Students enrolled in the 4-1 program must complete a minimum of 154 semester credits, comprised of approximately 117 semester credits for the B.A. at Pacific and 37 semester credits ( 56 quarter credits) for the M.S. at OHSU. Students in this program will be required to enroll in Ensc 498, (Thesis Proposal and Design), during the fall semester of their fourth year at Pacific. Students will design and present a research proposal to Pacific and OHSU faculty. Students will work in research laboratories at OHSU during their fourth year of study, for a total of 8 research credits (quarter credits). After completing this research, qualified students may be invited to pursue a thesis-based M.S. program that typically includes a tuition waiver and stipend for subsequent study at OHSU. If a student has good academic standing but is not selected to pursue a thesis-based M.S. program, the student may pursue a nonthesis based M.S. program at OHSU.
At OHSU, a student's curriculum must satisfy the department's distribution requirements. To achieve the necessary breadth in training, students in all programs take courses that cover a range of scientific disciplines and environmental media. Five courses must be taken that satisfy the following distribution requirements. No course can satisfy more than one requirement. At least one course must be taken from three of the following four discipline groups: (1) Applied Mathematics, (2) Chemistry, (3) Fluid Dynamics, and (4) Biology. And, at least one course must be taken from each of the following environmental media groups: (1) Surface Waters, and (2) Ground Water.

Requirements: Students planning on a cooperative program must complete the Pacific University courses below.

In addition, students must complete all other Pacific University requirements for a B.S. Degree with a major in Environmental Science with an emphasis in either Environmental Biology or Environmental Chemistry.

## Environmental Science

Ensc 100 Environmental Studies Seminar ..... 1
Ensc 200 Our Global Environment ... .....  4
Ensc 301 Environmental Toxicology .. .....  4
Ensc 490 Environmental Science Capstone .....  2
PolS 224 Environmental Politics ..... 3
Econ 102 Microeconomics ..... 3
Econ 333 Environmental Economics .....  3
Ensc 498 Thesis Proposal and Design .. 2
Biology
Biol 202 General Biology I ..... 4
Biol 204 General Biology II ..... 4
Biol 304 Experimental Design, Analysis \& Writing ..... 4
Biol 305 Ecology ..... 4
Biol 470 Animal Physiology ..... 4
Chemistry
Chem 220 General Chemistry I ..... 4
Chem 230 General Chemistry II ..... 4
Chem 310-311 Organic Chemistry I ..... 4
Chem 320-321 Organic Chemistry II ..... 4
Chem 340-341 Quantitative Analysis ..... 4
Physics
Physics 232 General Workshop Physic I .. 4
Physics 242 General Workshop Physics II .. 4
Mathematics
Math 226 Calculus I ..... 4
Math 227 Calculus II ..... 4
Math 311 Differential Equations .....  3
Choose 2 courses from the following group
Laboratory Studies
Ensc 310 Environmental Chemistry ..... 4
Chem 380 Biochemistry I ..... 3
Chem 481 Biochemistry Laboratory ... .....  1
Chem 350-351 Instrumental Analysis ..... 4
Biol 308 Microbiology ..... 4
Biol 400 Molecular Biology ..... 4
Biol 330 Genetics ..... 4

## Choose 1 course from the following group <br> Field Studies

$\begin{array}{ll}\text { Ensc } 210 & \text { Tropical Environmental } \\ & \text { Biology ............................... } 4\end{array}$
Biol $450 \quad$ Tropical Rainforest Biology 4
Biol 345 Marine Biology .................... 4
Biol 420 Vertebrate Biology .............. 4
Biol 410 Invertebrate Biology ........... 4
Biol 316 General Botany .................... 4
Biol 430 Plant Systematics ................ 4

The student must also complete at least 56 quarter hours of graduate study in Environmental Science and Engineering at OHSU.

## COURSE DESCRIPTIONS

## Environmental Science (Ensc)

## Ensc 100 Environmental Studies Seminar

The study of the environment encompasses a broad field that links theory from many disciplines to applications in human society. This course provides a survey of both the major issues in environmental science and the environmental professions that address these issues. Faculty and outside speakers from government and private industry will make presentations and lead discussions. The structure of environmental regulation and management in the U.S. will be described. 1 hour. Gundersen.

## Ensc 200 Our Global Environment

Human activities have changed the types and rates of processes occurring throughout the planet. Understanding the near-term and longterm effects of these actions on the quality of the environment requires a broad view of how earth functions without human intervention, and how society has changed these functions to support itself. Consent of instructor. 4 hours. Gundersen.

## Ensc 210 Tropical Environmental Biology

A study of the effects of human activity on natural environments associated with Third World, developing countries (ie. Belize and Guatemala, Central America). A variety of ecosystems and areas will be studied, including lowland savannas, tropical seasonal forests, limestone caves, coastal lagoons, mangrove swamps, sea-grass flats, coral reefs and urban and rural societies. The course meets during the spring, in order to present lectures and background materials, which will prepare students for activities in Belize and Guatemala in May. Additional fee required. Prerequisite: consent of instructor and sophomore standing. Alternate years. 4 hours. Gundersen

## Ensc 301 Environmental Toxicology

Pollutants impact the structure and function of ecological systems at all levels of biological organization. This course will focus on the effects of toxicants on ecological structures, from the molecular to the individual organism to the community and the ecosystem. Field and laboratory experiences are integrated into the course and will involve standard toxicity testing, use of biomarkers, tissue, water and soil analyses, and molecular techniques. Prerequisite: Biology 204, and one semester of organic chemistry, both with a ÒC-Ó or better, and consent of instructor. 4 hours. Gundersen

## Ensc 310 Environmental Chemistry

 Changes in the environment, whether they involve degradation or restoration, are ultimately the result of chemical processes. This course studies the state of and theoretical basis for change in the atmosphere, groundwater, and various aquatic environments. Methodology for monitoring and modeling these systems will be included. Prerequisites: Chem 240 or Chem 310, ES200, Bio204, with a ÒC-Ó or better. 4 hours. Paar.
## Ensc $490 \quad$ Capstone Experience

Designed to allow students to expand on research projects or internships by more thoroughly examining the primary literature, reanalyzing data, writing an annotated bibliography, and presenting in a public forum. Prerequisite: Senior standing and approved project. 2 hours. Gundersen.

## Ensc 495 Research

Faculty supervised, student-conducted, individual research project. Prerequisite: consent of instructor. 1-6 hours. Staff.

## EXERCISE SCIENCE

Shawn Henry, Chair, Associate Professor of Exercise Science

Linda McIntosh, Instructor and Director of Sports Medicine*

Jean Rix, Instructor*
Richard Rutt, Associate Professor
of Physical Therapy*
Sheryl Sanders, Assistant Professor of Physical Therapy*

Philip Schot, Associate Professor of Exercise Science

Ken Schumann, Instructor and Associate Director of Athletics*

Judith Sherman, Professor and Director of Athletics*

*adjunct faculty

The Department of Exercise Science offers a major in Exercise Science with emphasis areas in Human Performance and Sports Medicine and minors in Coaching and Exercise Science.

Exercise majors are prepared for graduate study in physical therapy, occupational therapy, exercise physiology and related fields of medicine. Majors with a Human Performance emphasis are prepared for careers in recreation, fitness centers and, with the appropriate licensure, teaching physical education in the public schools.

## MAJOR IN EXERCISE SCIENCE

The Department of Exercise Science is dedicated to the development of competent professionals within the field of Exercise Science. The department offers courses that provide the knowledge and skills necessary for successful performance in entry-level positions or graduate school.

## EXERCISE SCIENCE

A student who successfully completes the major in Exercise Science will be able to:

- Understand and appreciate motor and health-related fitness from a scientific perspective, including muscular strength, muscular endurance, cardiorespiratory fitness, flexibility, body composition, speed, agility, power, balance and coordination.
- Understand form and function of the human body during exercise and the adaptations that occur in response to exercise.
- Understand and apply scientific principles necessary to enhance human performance; optimize the injury rehabilitation process; and maintain health, fitness, and wellness in the general population _ quantitatively and qualitatively improving quality of life.
- Clearly articulate the application of biomechanical principles to human movement.
- Demonstrate the ability to use the scientific method when analyzing problems and synthesizing information.


## Requirements

Biol 202 General Biology I and Lab ..... 4
Biol 204 General Biology II and Lab ... 4
Biol 224 Human Anatomy and Lab .... 4
Biol 240 Human Physiology and Lab ... 4
Chem 220 General Chemistry I and Lab ... 4
Chem 230 General Chemistry II and Lab .4
Phy 202 Intro to Physics I and Lab .. 4
Spmd 204 Care \& Prevention of Athletic Injuries .2
Exsc 230 Nutrition .....  3
(may substitute Exsc 355)
Exsc $380 \quad$ Biomechanics and Lab ..... 4
Exsc 414 Perceptual Motor Learning 3
Exsc 475 Internship .....  3
Exsc $480 \quad$ Physiology of Exercise and Lab ..... 4
Choose two of the following ..... 8
Hper 330 Adult Fitness
Exsc 430 Adv Biomechanics and Lab
Exsc 400 Adv Gross Anatomy and Lab

## EXERCISE SCIENCE WITH AN EMPHASIS IN HUMAN PERFORMANCE

A student who successfully completes the major in Exercise Science with an emphasis in Human Performance will be able to:

- Plan a scope and sequence of physical education instruction for grades PK-12 that promotes an appreciation of lifelong learning and participation in physical activity.
- Plan and implement a program of instruction consistent with the State and National Standards for Physical Education.
- Teach the systematic progression of movement for team sports, individual sports and fitness activities in educational and recreational settings.
- Distinguish between qualitative and quantitative approaches for analyzing human movement and be able to detect and correct movement errors.
- Demonstrate the ability to communicate clearly and effectively with exercise participants in groups and individually.
- Clearly articulate and implement the components that create and maintain a safe learning environment.
- Evaluate student progress using outcome goals, standards and benchmarks.
- Demonstrate a knowledge of techniques for the accommodation of varied skill levels and special populations within the same class or activity group.


## Requirements

Biol 202 General Biology I and Lab ... 4
Biol 224 Human Anatomy and Lab .. 4
Biol 240 Human Physiology and Lab .. 4
Phy 110/111 Physics of Everyday and Lab .. 4 (May substitute Phys 202)
Nutrition ............................. 3
Exsc 380 Biomechanics and Lab ........ 4

| Exsc 414 | Perceptual <br> Motor Learning $\qquad$ |
| :---: | :---: |
| Spmd 204 | Care \& Prevention of <br> Athletic Injuries $\qquad$ |
| Hper 105 | First Aid. |
| Hper 170 | Techniques of Recreational Games, Personal Defense, Gymnastics, Fitness, Pickleball, Handball, Racquetball 3 |
| Hper 270 | Techniques of Aquatics, Rhythms, Badminton, Tennis, Track $\qquad$ 3 |
| Hper 305 | Measure and Eval in <br> Physical Education $\qquad$ |
| Hper 315 | Adaptive Physical <br> Education ............................. 3 |
| Hper 316 | Teaching Health and <br> Physical Education in the <br> Elementary School $\qquad$ $\text { .. } 3$ |
| Hper 321 | Elementary Human <br> Performance Practicum ...... 1 |
| Hper 323 | Secondary Human <br> Performance Practicum...... 1 |
| Hper 331 | Adult Fitness Practicum .... 1 |
| Hper 370 | Techniques of Softball, <br> Basketball, Flag Football, <br> Soccer, Volleyball, <br> Archery, Golf $\qquad$ .3 |
| Hper 421 | Principles and Administration of Physical Education and Athletic Programs $\qquad$ 3 |
| Hper 480 | Exercise Physiology for Human Perf $\qquad$ 4 |
| Choose one of the following: ................ 4 |  |
| Hper 330 | Adult Fitness |
| Exsc 430 | Adv Biomechanics and Lab |
| Exsc 400 | Adv Gross Anatomy and Lab |
| Exsc 490 | Adv Phys of Exercise and Lab |
|  | 59 |

Motor Learning ..... 3
Care \& Prevention of Athletic Injuries ..... 2
Per 10503
Hper 270 Techniques of Aquatics, Rhythms, Badminton, Tennis, Track ..... 3Hper 315 Adaptive PhysicalEducation3Hper 321 Elementary HumanPerformance Practicum1
Hper 323 Secondary Human Performance Practicum ..... 1Hper 370 Techniques of Softball,Basketball, Flag Football,Soccer, Volleyball,Archery, Golf3
Hper 421 Principles and
Administration of Physical Programs ..... 3
Hper 480 Exercise Physiology for Human Perf ..... 4Hper 330 Adult FitnessExsc 400 Adv Gross Anatomy and Lab
Exsc 490 Adv Phys of Exercise and Lab59

## EXERCISE SCIENCE WITH AN EMPHASIS IN SPORTS MEDICINE

A student who successfully completes the major of Exercise Science with an emphasis in Sports Medicine will be able to:

- Recognize and evaluate common athletic injuries and demonstrate knowledge in the prevention of those injuries.
- Provide emergency care for acute athletic injuries and long-term care for chronic injuries.
- Apply protective strapping, bracing and taping.
- Demonstrate the proper use of manual therapy techniques and the proper application of a variety of therapeutic modalities.
- Prescribe and implement rehabilitation programs for athletic injuries.
- Show familiarity with the administration of an athletic training program and manage a treatment facility for athletes.


## Requirements

Biol 202 | General Biology I |
| :--- |
| and Lab ............................... 4 |

Biol 204 General Biology II
and Lab .............................. 4
Biol 224 Human Anatomy and Lab4

Biol 240 Human Physiology
and Lab ..... 4
Chem 220 General Chemistry I and Lab ..... 4
Chem 230 General Chemistry II and Lab ..... 4
Phy 110/110 Physics of Everyday and Lab ..... 4
(May substitute Phys 202)
Exsc 230 Nutrition ..... 3(may substitute Exsc 355)
Exsc 380 Biomechanics and Lab ..... 4
Exsc 400 Adv Gross Anatomy and Lab .....  .4
Exsc $414 \quad$ Perceptual Motor Learning ..... 3
Exsc 475 Internship .....  3
Exsc 480 Physiology of Exercise and Lab ..... 4
Exsc 490 Adv Physiology of Exercise and Lab ..... 4
Spmd 204 Care and Prevention of Athletic Injuries ..... 2
Spmd 302 Athletic Training Room Procedures ..... 1
Spmd 303 Athletic Training Coverage of Collegiate Practices \& Games ..... 1
Spmd 304 Treatment and Evaluation of Athletic Injury ..... 3
Spmd 404 Advanced Principles of Athletic Training ..... 3
Hper 103 Personal Health ..... 3
Hper 305 Measure and Eval in Physical Education ..... 1
Hper 315 Adaptive Physical Education ..... 370

Students may become eligible to test for National Athletic Trainers Association (NATA) certification by completing at least 1500 hours of athletic training experience under direct supervision of a NATA certified athletic trainer. The hours must be attained over a minimum of two years and not more than five years. Students must complete all requirements for eligibility no later than December 31, 2003 after which time this option ceases to exist.

## COACHING MINOR

This minor is available for those students interested in obtaining a coaching position in the public/ private schools or in youth or adult programs.
Hper 105 First Aid .....  1
Hper 311 Coaching Methods .....  2
Hper 320 Sport and Society ..... 3
Hper 322 Sport Psychology ..... 3
Hper 371 Principles and Techniques of Coaching ..... 3
Hper 421 Principles and Administra- tion of Physical Education and Athletic Programs ..... 3
Spmd 204 Care and Prevention of Athletic Injuries ..... 2

## EXERCISE SCIENCE MINOR

This minor is availablefor thosestudents who, with the appropriate major, seek entry into graduate schools (e.g., physical therapy) or are interested in careers in the sports and fitness industry.
Biol 202 General Biology I and Lab ... 4
Biol 224 Human Anatomy and Lab ... 4
Biol 240 Human Physiology and Lab 4
$\begin{array}{ll}\text { Spmd } 204 & \begin{array}{l}\text { Care and Prevention of } \\ \text { Athletic Injuries .................. } 2\end{array}\end{array}$
Exsc 230 Nutrition ............................. 3
Exsc 380 Biomechanics and Lab ....... 4
Exsc $480 \quad \begin{aligned} & \text { Physiology of Exercise } \\ & \text { and Lab ............................... } 4\end{aligned}$
(May substitute Hper 480/481)

## COURSE DESCRIPTIONS

All prerequisite courses must be completed with a grade of "C-" or better.

## Exercise Science (Exsc)

## Exsc 190 Exercise Science Passport

An introductory course for students interested in exercise science as a major or minor. Activities and faculty/guest speakers will introduce students to the exercise science program at Pacific and to the wide array of careers related to exercise science. 1 hour. Henry.

## Exsc $230 \quad$ Nutrition

An in-depth study of the relationship between nutrition and total individual health through the life-span. Emphasis will be placed on the essential nutrient chemical conversions during digestion, absorption and metabolism and their contribution to optimal health. Individual nutritional analysis and a personalized diet plan will be required. 3 hours. Henry.

## Exsc 355 Principles of Nutrition

Advanced study of nutrition, including physiological function and metabolic fate of carbohydrates, lipids, proteins, vitamins, minerals, and water. Individual nutritional analysis and a personalized diet plan will be required. Prerequisite (or current enrollment): Biol 240 Human Physiology or Organic Chemistry. 3 hours. Henry

## Exsc $380 \quad$ Biomechanics and Laboratory

Study of the structure and functioning of the human body via the methods of classical mechanics. Prerequisite: Biol 224 and Math 125.4 Hours. Schot.

## Exsc 400 Gross Human Anatomy and Laboratory

Advanced study of gross and histological structure of the human body. Introduction into musculoskeletal, nervous and cardiopulmonary systems. Prerequisite: Biol 224. 4 hours. Sanders.

## Exsc 414 Perceptual Motor Learning

An in-depth study of learning theories, acquisition of skill, perception and motor control as they apply to the learning of a motor skill. Prerequisite: Biol 202. Recommended Biol 224. 3 hours. Schot.

## Exsc 430 Advanced Biomechanics and Laboratory

Advanced study and application of biomechanics principles and techniques in a research context. Students will engage in activities to enhance their knowledge and skills. in the conceptual development and planning; data collection, management and analysis; and dissemination of research in biomechanics. Prerequisite: EXSC 380 and PHY 202 and (MATH 207 or PSY 350 or SOC 301). 4 hours. Schot.

## Exsc 475 Internship

An internship consists of a field experience in a student's specific career choice. Application of theories is emphasized. Arrangements for the course must be completed two weeks prior to the term in which the course is being taken. The internship is a capstone experience recommended to be taken during the senior year. Instructor's consent is required. Prerequisite: 12 hours of Exercise Science/Human Performance/Sports Medicine. Graded P/N. Course may be repeated once for credit. 1-14 hours. Schot.

## Exsc $480 \quad$ Physiology of Exercise and Laboratory

The branch of physiology that deals with function of the body during exercise and adaptations that occur in response to exercise. Knowledge and application of scientific principles are necessary to develop peak performance in athletes and to maintain health and fitness in the general population - quantitatively and qualitatively improving life. Prerequisite: Biol 204 and 240. 4 hours. Henry.

## Exsc $490 \quad$ Advanced Physiology of Exercise \& Laboratory

Advanced study and application of principles of exercise physiology. Emphasis is on exercise testing and prescription, current topics in exercise science, and research projects. Students develop original research questions and appropriate research design, collect data, engage in discovery learning, and participate in peer teaching. Prerequisite: Successful completion of Exsc 480. 4 hours. Henry.

## Human Performance (Hper)

## Hper 103 Personal Health

The study of physical, mental, intellectual and social well being for effective functioning, both within the individual and by the individual, within the environment. 3 hours. Staff.

## Hper 105 First Aid

The study of basic anatomy and physiology of body systems as they relate to the prevention and care of injury and safety. More advanced than a standard first aid class outlined by the American Red Cross. 1 hour. Boyd.

Hper 170 Techniques of fitness, gymnastics, recreational games, handball, selfdefense, racquetball, and pickleball.
Methods and materials for teaching and evaluating in the areas of gymnastics, recreational games, handball, self defense, racquetball, pickleball, and fitness parameters. 3 hours. Fall. Alternate years. Rix/Staff.

## Hper 204 Methods of Officiating

The study of officials' duties for various sports; general officiating diagnosis to discover methods and techniques used for better officiating. 3 hours. Staff.

## Hper 305 Measurement and Evaluation in Physical Education

Contemporary theories and techniques of research design, data acquisition, processing, and analysis of measurements in physical education, sports medicine, and human performance. The course integrates the use of information technology and the application of statistical concepts toward evaluation and presentation of findings. Prerequisite: Spmd 204, Math 207, upper-division standing or consent of instructor. 1 hour. Schot.

Hper 270 Techniques of swimming, badminton, tennis, rhythms, and track.
Personal skill development, methods and materials for teaching and evaluating in the areas of swimming, badminton, rhythms, tennis, track and field. 3 hours. Spring. Alternate years. Rix/Staff.

## Hper 311 Coaching Methods

A series of individual courses designed to give students insight and direction in leading or assisting in the coaching of athletics. Students may elect from a variety of coaching methods courses in the areas of baseball, softball, basketball, soccer, volleyball, and wrestling. May be repeated for different sports. Prerequisite: Hper 105. 2 hours each. Staff.

## Hper 315 Adaptive Physical Education

 An introduction to adapted, corrective and developmental physical education. Emphasis is placed on instruction of physical activities for the exceptional child. 3 hours. Staff.
## Hper 316 Teaching Physical Education in the Elementary School

$A$ course based on a curriculum of sequential and progressive motor, fitness and social skills development for an elementary physical education program. Emphasis will be placed on program and lesson planning resulting in the application of content, methodology, student assessment and classroom management in a practical teaching experience with students grades one to four. Regulations, standards, and career opportunities will be discussed. Prerequisite: Hper 170, 270, 370, or junior standing. 3 hours. Spring. Alternate years. Rix/Staff.

## Hper 320 Sport \& Society

Investigation of sport as a social phenomenon, including small groups in sport, sport organizations, sport subcultures, socializing institutions, and an in-depth analysis of interscholastic and intercollegiate sport programs. 3 hours. Junior Standing. Alternate years. Staff.

## Hper 321 Elementary Human Performance Practicum

A supervised practical experience teaching physical education activities and concepts to elementary age school children. Prerequisite: Hper 316. 1 hour. Rix/staff.

## Hper 322 Sport Psychology

Examination of the psychological basis of sport including effects on learning, perception, motivation, social, and behavioral aspects. 3 hours. Junior Standing. Alternate years. Staff.

## Hper 323 Secondary Human <br> Performance Practicum

A supervised practical experience teaching physical education activities and concepts to Junior high, high school and/or college-age students. Prerequisite: Junior standing in exercise science major or consent of the instructor. 1 hour. Rix/Staff.

Hper 330 Adult Fitness Principles
A study of the physiological, psychological and sociological aspects of adult fitness. The course includes materials and programs for use in initiating, prescribing, evaluating, monitoring and supervising adult fitness programs. Prerequisite: Biol 240 and Exsc 230. 3 hours. Staff.

Hper 331 Adult Fitness
Programming Practicum
A supervised practical experience working with adults in a physical fitness program. Prerequisite: Hper 330. 1 hour. Staff.

Hper 370 Techniques of softball, basketball, flag football, soccer, volleyball, archery and golf.
Personal skill development, methods and materials for teaching and evaluating in the areas of softball, basketball, flag football, soccer, volleyball, archery and golf. 3 hours. Fall. Alternate years. Rix/Staff.

Hper 371 Principles \& Techniques of Coaching
Principles technically applicable to the coaching of sports, including strategy and tactics, motivation, ethics, legal liability, budgeting, and development of organizational, interpersonal and communication skills. Prerequisite: Hper 105 and Hper 311. 3 hours. Alternate years. Schumann/Staff.

Hper 421 Principles \& Administration of Physical Education \& Athletic Programs
A study of administrational functions in physical education and athletics, including program organization and evaluation program goals and objectives, personnel, facilities, equipment, fundraising, sport law and risk management. Prerequisite: Junior Standing. 3 hours. Schumann/Staff.

## Hper 480 Physiology of Exercise for Human Performance \& Laboratory

The study and application of principles to the development of efficient human movement as it applies to human performance and educational settings. Prerequisite: Biol 202 and 240. 4 hours. Alternate years. Henry.

## Sports Medicine (Spmd)

## Spmd 204 Care \& Prevention of Athletic Injuries

A basic study of prevention and care of athletic injuries. Students will learn to prevent, evaluate, and care for common injuries. Students will also learn the basics of emergency care and the application of preventive taping. 2 hours. Prerequisite: Hper 105. $\$ 5$ Lab Fee. Staff.

## Spmd 302 Athletic Training Room Procedures

Observation of Pacific University athletic training facility operations and completion of National Athletic Training Association competencies. Prerequisite: Spmd 204. Co-requisite: Biol 224 Human Anatomy. 1 hour. Staff.

## Spmd 303 Athletic Training Coverage of Collegiate Practices \& Games

Observation of athletic training procedures and protocols during collegiate games and practices and completion of National Athletic Training Association competencies. Prerequisite: Spmd 302. 1 hour. Staff.

## Spmd 304 Treatment/Evaluation of Athletic Injuries

Advanced procedures in athletic training, injury evaluation, care and rehabilitation. Consideration for safety factors in athletic contests, sports equipment, and facilities. Theory and practice in the use of therapeutic modalities. Prerequisite: Spmd 204 and Biol 224. Every other year (alternates with Spmd 404). 3 hours. McIntosh.
Spmd 305 Athletic Training Practicum I Observation hours in a clinical setting. Hours may be obtained in a physical therapy clinic or orthopedist's office. Instructor's consent only. 1 hour. McIntosh.

## Spmd 404 Advanced Principles of Athletic Training

Advanced procedures in Athletic Training including gait analysis, manual therapy, joint injury evaluation, taping and bracing. Discussion of current issues in sports medicine including: drugs and sports, communicable diseases and chronic illnesses. Prerequisite: Spmd 204 and Biol 224. Every other year (alternates with Spmd 304). 3 hours. McIntosh.

Spmd 405 Athletic Training Practicum II
Advanced practical application of training skills in a secondary school setting. Prerequisite: Spmd 304. Instructor's consent only. 1 hour. McIntosh.

## FEM INIST STUDIES

## Co-Directors

Alyson Burns-Glover, Social Sciences Division
Martha Rampton, Social Sciences Division
Associated Faculty
Vernon Bates, Sociology
Jeffrey Barlow, History
Pauline Beard, English
Sara Steinert Borella, French
Susan Cabello, Spanish
Patricia Cheyne, Art
David DeMoss, Philosophy
Lorely French, German
Linda Gallahan, Psychology
Melissa Jones, Media Arts
Lawrence Lipin, History
Cheleen Mahar, Anthropology
Marc Marenco, Philosophy
Darlene Pagan, English
Kathleen Postma, English
Sarah Phillips, Sociology
Martha Rampton, History
Jeff Seward, Political Science
Feminist Studies is an interdisciplinary minor that investigates the significance of sex and gender in all areas of human life. Feminist analysis is based on the assumption that sex and gender are crucial factors in the organization of our personal and public lives and our social institutions. The Feminist Studies minor includes courses that utilize feminist perspectives to expand and reevaluate the assumptions at work in traditional disciplines in the study of individuals, cultures, social institutions, social policy and other areas of scholarly inquiry. The minor also encompasses courses that examine the roles of women and men in the community, the nature of work and the family, and the importance of race, class, and culture to the study of sex and gender.

The Feminist Studies minor has as its basis the theoretical framework of the introductory course and two advanced 400 level courses, which emphasize the diversity of feminist literature and research. The introductory course lays the groundwork for the minor by introducing basic theory and exposure to field research. The advanced courses provide space for collaboration with beginning students, the practical application of theories, and completion of the senior capstone project. Elective courses concentrate on substantive issues in the areas of feminist, women's and gender studies and offer a multidisciplinary approach to the program. Such courses address topics that relate directly to feminist theory or have become salient to the minor because of feminist theory.

Students who wish to declare the Feminist Studies M inor must consult with a co-director of Feminist Studies or an FS core faculty member prior to submitting a declaration form. At that time, in consultation with the director or core faculty member, the student will choose a Feminist Studies Minor advisor. Students should plan to take the first FS core course, Introduction to Feminist Studies 201, in the spring semester of either their freshman or sophomore year. Students should plan to take FS 450 in the Fall of either their Junior or Senior year, and FS 451 in the Spring of either their junior or senior year. FS 201 and FS 451 will be taught only in the spring, and FS 450 will be taught only in the fall. In addition to the core courses, students must take 3-4 elective courses (12 semester hours). No more than one elective course taken prior to FS 201 can be applied to the minor.

## MINOR IN FEM INIST STUDIES

FS 201 Introduction to Feminist Studies .4 (includes one credit for field work)
FS 450 Feminist Studies Capstone ..... 2
FS 451 Feminist Studies $\quad$ Mentoring ........................... 2
Three or four electives ............................. 12

At least one course must be from either the Natural or Social Sciences and at least one must be from either the Arts or Humanities.

## Courses Approved for FS Elective Credit:

All the 300 and 400 level courses listed below when taken for Feminist Studies credit have a prerequisite of FS 201.

| Anth 330 | Gender in |
| :--- | :--- |
|  | Cross-Cultural Perspective |

Art 280 Women in Art

Engl 220 Literature and Human Concerns: Special Topics
Engl 430 Major Writers: Woolf
Fren 401 Gender, Culture \& Society: Women's Writing
FS 300 Special Topics in Feminist Studies
Hist 246 Gender and Sexuality in Victorian America
Hist 400 Medieval Women
MedA 307 Gender Communication
MedA 401 Women Directors and Feminist Strategies
Phil 255 Feminist Epistemology
PolS 224 Women in Politics
Psyc 260 Psychology of Women
Psyc 420 Sp Topics: The Development of Gender
Psyc 420 Sp Topics: Women and Violence
Soc 309 Sociology of the Family
Soc $317 \quad$ Gender and Sexuality
Span 485 Women Writers in Latin America
HPER 150 Women's Self Defense
Check individual departments for course descriptions and course schedules for semesters offered. Additional courses are approved annually and may be applied to the minor.

## COURSE DESCRIPTIONS

FS 201 Introduction to Feminist Studies This introductory level course explores the various foundations of feminist theory, including perspectives from across the disciplines. Students review and critique readings from early feminist writers, second generation feminist writers and contemporary feminist and deconstructionist theorists. The course consists of two components:
a classroom experience with an emphasis on the breadth of feminist literature and field work in the community. Spring only. 4 hours. Staff

## FS 210 Action Projects in Feminist Studies

This course is designed to promote student individual and collaborative work related to issues in feminism and gender studies. Students may participate in a one-time action project centered around an event, a service learning placement, or a collaborative project that promotes the goals of the minor. Projects may include, but are not limited to, serving at sites approved by the FS faculty, working on events connected to Women's History Month, carrying out their FS 201 action projects, and projects designed to promote education in our community. Graded P/NP. Prerequisite: FS 201.

## FS $300 \quad$ Special Topics in Feminist Studies

This is a special topics course focusing on the specific interests of the faculty and students in the Feminist Studies Minor program. Topics addressed in the course will be derived from a variety of disciplinary standpoints, and may involve interdisciplinary collaboration. Some examples of topics that may be offered through this course are: "The Development of Gender," "Women and Film," and "Feminist Epistemology" to name a few. Offered for 3-4 hours. Prerequisites: FS 201 (or permission of the instructor).

## FS $450 \quad$ Feminist Studies Capstone

Feminist Studies 450 is designed to allow students an opportunity to complete the capstone project required for the minor. The project will be developed in consultation with one of the FS faculty members. Prerequisite: FS 201, two FS electives, Junior or Senior standing. Fall only. 2 hours.

FS 451 Feminist Studies Mentoring In this seminar course, students read and analyze advanced works in Feminist Studies and review the material they have encountered in their electives and FS 201 in light of advanced theory. It also gives the students the opportunity to fulfil the mentoring requirement of the Feminist Studies minor. FS 451 students will meet with FS 201 students one class period a week. During this semester the students present the findings of the project they completed in FS 450 to the Pacific Community in a public forum during Women's History Month. Prerequisites: FS 201 and 450, two FS electives, Junior or Senior standing. Spring only. 2 hours.

Martha Rampton, Chair, Associate Professor<br>Jeffrey G. Barlow, Professor

Thomas Beck, Professor and Dean of the College of Arts and Sciences
Jayson Chun, Instructor of History
Richard I. Jobs, Assistant Professor
Lawrence M. Lipin, Professor
The discipline of history is central to the liberal arts; it draws on and contributes to neighboring fields, such as political science, literature, philosophy and the arts, to name but a few. History is essential to an understanding of the evolutionary nature of the institutions and values that have not only shaped the past, but inform the present. The study of history prepares students for a wide range of professions, including law, government, archival and museum work, professions in travel and teaching.

## Goals

The major in history is designed to provide the student with a broad range of offerings in various fields of history. Through these studies the department seeks to teach its majors to conduct creative and comprehensive research projects, to read historical materials with understanding, to engage in critical analysis from a historian's perspective, and to write polished communicative prose. The curriculum established by the history major leads the student from broad-based survey classes that cover the U.S., Europe, Islamic Middle East and Asia to more narrowly defined upper-division classes in the specialty of the student's choice. Students encounter the scholarly methodology employed by historians, contributing to the development of verbal, analytical and reading skills. More specifically, throughout the curriculum, history courses require students to produce written work that emphasizes focused analysis supported by historical evidence. In addition, at the lower-division level, students become familiar with basic historical narratives. At the upper-division level, students use primary sources in pursuit of questions of an increasingly thematic nature. Their research capitalizes on the electronic resources currently available. As seniors, history majors participate in a
seminar emphasizing historical perspectives, methodological techniques, and a variety of interpretive historical models. History majors complete a thesis in the last semester of their senior year that demonstrates competence with historical theory and methods.
The department also hosts the Journal of the Association of History and Computing, http://mcel.pacificu.edu / JAHC/ and upper-division students have an opportunity to work as assistant editors in producing it.

## MAJOR IN HISTORY

## Requirements

At least three courses must be
from the following: .................................. 9
Hist 101-102 Western Civilization I \& II
Hist $111112 \quad$ East Asia
Hist 141-142 American History I \& II
At least six additional courses, not more than 2 of which may be at the 200-level and not more than one of which must be a 400 level seminar-style course or an approved internship 18-24

## 27-33

Hist $490 \quad$| Senior |
| :--- |
| Research Seminar .......... 3 |

Hist 495 Senior Thesis .................. 3
33-39
Plus the following breadth requirements:
2 courses at the 300 level or above in
English literature, 300 level or above in
world languages and literature, or the 200
level or above in philosophy ............... 6-8
2 courses in political science
or anthropology ..................................6-8
1 300-level course in sociology or any
course in economics ............................ 3-4
48-59

## MINOR IN HISTORY

## Requirements

For a minor in history a student must complete seven courses in the History Department, at least three of which must be at the 300-level or above 21-28

Any student interested in a history minor should consult with a faculty member in the history department.
For additional information as to staff, program, and student work, see the department's web site at: http:/ / mcel. pacificu.edu/history / index.html.

## Course Descriptions

## History (Hist)

Hist 101 Western Civilization I
This course covers the development of western culture and institutions from the ancient world to the late Middle Ages. 3 hours. Rampton.

## Hist 102 Western Civilization II

This course covers the development of western culture and institutions from the Renaissance to the modern age. 3 hours. Jobs.

## Hist 111 Foundations of East Asia

This course deals with the intellectual, social, political, and religious foundations of three East Asian Societies: China, Japan, and Vietnam. The focus of the class is upon classical Asian notions of proper values and institutions, with a concentration on intellectual (both philosophical and religious) foundations considered in a historical perspective. We will also consider issues relative to modern Asia, and to Asian-American family life and culture. The approach will be primarily through original Asian texts in translation. Although it is not required, concurrent registration in History 255, "History Web Lab" (1 hour credit), is recommended. In that lab, students will learn to develop electronic materials for the World Wide Web which will both teach them to create web pages and will illuminate the contents of the course. Meets cross-cultural requirement. 3 hours. Barlow.

## Hist 112 East Asia

This course surveys the modern histories of China, Japan, Tibet, and Vietnam from the 17th century to the recent past. Topics covered include the classical cultures of the countries, economic and political foundations, and the consequences of Western impact and modern nationalism. The cultures, covered as independent entities, are compared both to each other and to European or Western patterns of development. There will be an opportunity in this course for students to learn how to prepare "pages" for the World Wide Web. Those who are interested should also enroll for one hour of credit in one of the two sections of History 255, "History Web Lab." Although concurrent enrollment in 255 is voluntary, all students are strongly urged to enroll as the lab
will not only teach web page production, but will also enhance student understanding of materials covered in the class itself. Meets cross-cultural requirements. 3 hours. Barlow.

## Hist 141-142 American History I-II

This is a two-part survey of American history from European settlement to the Civil War, and from Reconstruction to the present. The parts may be taken separately. 3 hours per semester. Lipin.

## Hist 200 The Islamic Middle East: 570-1300

This is a survey of the history of the Middle East (from Morocco to India) from the birth of Muhammed in 570 to the rise of the Ottoman Turks in 1300. The course concentrates on political developments and institutions as well as the growth and evolution of Islam and Islamic cultures. Meets cross-cultural requirements. 3 hours. Rampton.

## Hist 206 France from Caesar to Napoleon

This course covers the history and culture of France from the Roman period until the end of the Napoleonic Wars in 1815. Equal attention is given to political and social/cultural aspects of French history. Through reading of primary sources, discussions, and lecture, the course deals with the distinctiveness of France as well as placing the nation within a broad European historical context. 3 hours. Rampton.

## Hist 207 Spain from Rome to Revolution

This course covers the history and culture of Spain from the Roman era through the Moorish period and touches lightly on the dissolution of the Spanish Empire beginning in the seventeenth century. Equal attention is given to political and social/cultural aspects of Spanish history. Through reading of primary sources, discussions and lecture, the course deals with the distinctiveness of Spain, as well as placing the nation within a broad European historical context. 3 hours. Rampton.

## Hist 208 England from Rome to Revolution

This course covers the history and culture of England from the Roman period through the Glorious Revolution of 1688. Equal attention is given to political and social/cultural aspects of English history. Through reading of primary sources, discussions and lecture, the course deals with the distinctiveness of England, as well as placing the nation within a broad European historical context. 3 hours. Rampton.

## Hist 210 Ancient Kingdoms of Indochina: Vietnam, Cambodia, and Laos

This course covers the pre-modern kingdoms of Vietnam, Cambodia, and Laos, with some reference to contiguous areas of Southeast Asia. These kingdoms, such as those of the Vietnamese, the Cham, the Lao, and the Khmer, will be considered within a historical perspective with regard to such topics as political, social, religious, and economic institutions. The Vietnamese will be used as the unifying element around which to understand the other peoples and their kingdoms. Although it is not required concurrent registration in History 255, "History Web Lab" (1 hour credit), is recommended. In that lab, students will learn to develop electronic materials for the World Wide Web which will both teach them to create web pages and will illuminate the contents of the course. Meets cross-cultural requirements. 3 hours. Barlow.

## Hist 211 Japan Past \& Present with Film

This class will survey Japanese history and culture using classical Japanese films as a primary text, supplemented with assigned readings. The goals of the class are to acquaint students with an overview of Japanese history and culture, and to learn to read films, particularly Japanese classical films, as text. There will be an opportunity in this course for students to learn how to prepare "pages" for the World Wide Web. Those who are interested should also enroll for one hour of credit in one of the two sections of History 255, "History Web Lab". Although concurrent enrollment in 255 is voluntary, all students are strongly urged to enroll as the lab will not only teach web pages production, but will also enhance student understanding of the materials covered in the class itself. Meets cross-cultural requirements. 3 hours. Barlow.

## Hist 212 China Past \& Present with Film

This course will provide a survey of the basic institutions and values of China, considered both within their past, or Classical, and their present, or Modern, forms. We will cover such topics as political systems and values (Confucianism and Communism), family and gender, poetry and literature, arts, war and diplomacy, economic values and institutions, rebellion and protest, reform movements, etc. Chinese film will be heavily used as a text to illustrate modern Chinese values and Chinese interpretations of
traditional values and institutions. There will be an opportunity in this course for students to learn how to prepare "pages" for the World Wide Web. Those who are interested should also enroll for one hour of credit in one of the two sections of History 255, "History Web Lab." Although concurrent enrollment in 255 is voluntary, all students are strongly urged to enroll as the lab will not only teach web page production, but will also enhance student understanding of the materials covered in the class itself. 3 hours. Barlow.

## Hist 213 Vietnam \& the U.S.

This is a survey of the origins, development and results of the American war with Vietnam. This course, however, will be taught more within the context of Vietnamese history and culture than within that of American history and culture. Consequently, more emphasis will be given to the roots of the war in Vietnam than to its origins in U.S. foreign policy. There will be an opportunity in this course for students to learn how to prepare "pages" for the World Wide Web. Those who are interested should also enroll for one hour of credit in one of the two sections of History 255, "History Web Lab." Although concurrent enrollment in 255 is voluntary. All students are strongly urged to enroll as the lab will not only teach web page production, but will also enhance student understanding of the materials covered in the class itself. Meets cross-cultural requirements. 3 hours. Barlow.

## Hist 232 The Holocaust

This is a team-taught interdisciplinary course on the Nazi persecution and ultimate extermination of the Jews of Europe, Gypsies, political enemies of the National Socialist Dictatorship, and those considered undesirable by the NS State. It is cross-listed with Engl. 220, Literature and Human Concerns: The Holocaust. 3 hours. Jobs and Steele.

## Hist 235 Europe Since World War II

 This course examines the history of Europe and its relation to the world at large from the close of Word War II to the current questions of the continent's future in the global community. Since 1945, Europe has struggled to redefine itself in the context of the war's problematic legacy, the cold war's competing ideologies, nationalist struggles of independence, discrepancies of affluence and poverty, and the difficulties of global market competition. It is a process that continues today as the continent moves slowly toward economic and political integration. 3 hours. Jobs.
## Hist 240 Latin American History

This is a broad survey of political, social, and economic history of Latin America from the preColumbian civilizations to the 20th century. Special emphasis will be given to the complex ramifications of the interaction of European conquerors/settlers, African slaves, and the indigenous peoples of the region. Meets crosscultural requirement. 3 hours. Seward.

## Hist 242 History of the American West

 This is an exploration into the history of the western United States, with an emphasis on the historical encounter between peoples and cultures, between human societies and nature, between regional and federal governments, between local communities and an international economy, and between popular culture and historical experiences. While the course covers these themes for the entire geographical expanse west of the Mississippi, there will be a strong focus on the Pacific Northwest. 3 hours. Lipin.
## Hist 245 Race and Ethnicity in American History

This course examines the historical experience of specific minority groups (African-Americans, Mexican-Americans, immigrants from Asia, and those from Southern and Eastern Europe) in the United States, the historical roots of racism and its connection to American political and social thought. Prerequisite: History 141 or 142, or Junior standing. Meets cross-cultural requirements. 3 hours. Lipin. Meets crosscultural core requirement.

Hist 300 The Ancient World to AD 400
This class treats the ancient world from the first civilizations in the fertile Crescent through ancient Egypt, to the development of medieval institutions in the early fifth century $A D$. The course stresses both broad political, and social/ cultural issues. The class is largely run as a seminar with some lecture. Class discussions are based on reading of primary texts. Prerequisite: Junior standing or consent of instructor. 4 hours. Rampton.

Hist 301 The Medieval World: 400-1500 This class treats the medieval world from the development of medieval institutions in the fifth century $A D$ through the mid-fifteenth century. The class stresses social/cultural issues, but also provides an understanding of political and constitutional developments of the period. The class is run as a seminar with some lecture. Class discussions are based on reading of primary texts. Prerequisite: Junior standing or consent of the instructor. 4 hours. Rampton.

## Hist 302 Renaissance, Reformation, Revolt: 1500-1800

This is a history of early modern Europe from the Reformation to the French Revolution. The cause treats the spiritual, intellectual, social, political and economic foundations of modern Europe. Prerequisite: Junior standing or consent of the instructor. 4 hours. Rampton.

## Hist 305 The History of Magic and Witchcraft

This course deals with medieval and early European conceptions of and reactions to magic, sorcery, and witchcraft from pre-Christian Late Antiquity through the early modern period. The major themes of the course are (1) the development of ecclesiastical/intellectual notions of magic and heresy, (2) a look at primary texts with a view to understanding popular beliefs and practices regarding magic and witchcraft, (3) placing the great witch trials of the late medieval/early modern periods in an historical context of contemporary persecutions of various minorities, (4) explication of the "mature witchcraft theory" and the process of the witch trials. Junior standing or consent of instructor. 4 hours. Rampton.

## Hist 315 Modern Japan

This course covers Japanese history from the Meiji Restoration to the present, with an emphasis upon the 20th century. The primary focus of the course is upon the internal dynamics of Japanese culture. Topics will include political and economic modernization, relations with East Asia and the United States, changes in family and gender roles, the development of fine arts, poetry and literature, the development of Japanese expansionism and the Pacific War, the Japanese Economic Miracle and the place of Japan in the contemporary world. There will be an opportunity in this course for students to learn how to prepare "pages" for the World Wide Web. Those who are interested should also enroll for one hour of credit in one of the two sections of History 255, "History Web Lab." Although concurrent enrollment in 255 is voluntary, all students are strongly urged to enroll as the lab will not only teach web pages production, but will also enhance student understanding of the materials covered in the class itself. Prerequisite: Hist 112 or 211 or consent of instructor. Meets cross-cultural requirements. 3 hours. Barlow.

This course will survey Chinese history and culture in the period from 1949 to the present, with an emphasis on the mass campaigns, from the Great Leap Forward of 1957-58 through the Great Proletarian Culture Revolution, 1965-69. Topics will also include the Reform Movement of Deng Xiaoping and the student protests culminating in the Tiananmen Incident of 1989. An unusual feature of this course is weekly role-playing in which students will be asked to assume Chinese role-types such as peasant, soldier, female cadre, etc., and to play out actual political problems drawn from the mass political campaigns. There will be an opportunity in this course for students to learn how to prepare "pages" for the World Wide Web. Those who are interested should also enroll for one hour of credit in one of the two sections of History 255. "History Web Lab." Although concurrent enrollment in 255 is voluntary, all students are urged to enroll as the lab will not only teach web page production, but will also enhance student understanding of the materials covered in class itself. Prerequisite: Hist 112 or 212, or consent of instructor. Meets cross-cultural requirements. 3 hours. Barlow.

## Hist 333 Imperialism and Decolonization

This course examines the history of modern imperialism from the nineteenth century race for empire to the post-colonial world. The course examines the political and economic impulses for imperialism, the nature of various imperial systems, the impact of imperialism on both the colonizer and the colonized, the turmoil of national independence and decolonization, and the lasting legacies of imperialism in the post-colonial world. Prerequisite: Junior standing or consent of instructor. 4 hours. Jobs.

## Hist 334 Twentieth Century Russia

This course treats Russia's development in late Tsarist times, the Bolshevik revolution; Soviet communism under Lenin, Stalin, Khrushchev, and Brezhnev; nationalism and the non-Russian republics; the Gorbachev reforms and the collapse of the USSR; the current situation. 3 hours. Singleton.

Hist 335 The Era of the First World War This course explores the historical period of the First World War in Europe. It focuses on the causes, course and effects of the war within a

European perspective in terms of the political, social, cultural and intellectual contexts. It is designed to consider the impact of WWI on European society as the formative event of the $20^{\text {th }}$ century. Prerequisite: Junior standing or consent of instructor. 4 hours. Jobs.

## Hist 338 The Era of the French Revolution

This course explores the historical period of the French Revolution from the Enlightenment through the defeat of Napoleon. It focuses on the causes, course and effects of the Revolution in terms of the political, social, cultural and intellectual contexts. It is designed to consider the impact of the French Revolution as the defining event of the modern period. Prerequisite: Junior standing or consent of instructor. 4 hours. Jobs.

## Hist 339 History of Science

This is a study of the development of science as doctrine, process and social institution, from early Greek science to the present. Emphasis is on western science, including Arab and Islamic contributions. It examines the impact of culture on science and science on culture. Prerequisite: Sophomore standing. 4 hours. Boersema.

## Hist 341 American Revolution \& Constitution

This course covers the ideological, social, economic, and political causes of the American break with the British Empire, the democratizing influence of the revolution on the new state government, and the relationship between this tendency and the construction of the Constitution. The course incorporates research regarding women, AfricanAmericans, and common people into the broader movement. Prerequisite: History 141 or Junior standing. 4 hours. Lipin.

## Hist 342 Civil War \& Reconstruction

This course treats the Civil War and its aftermath in context of a broader Western move away from bonded servitude and restrictions on human liberty toward free labor and democracy, and will measure successes and failures, particularly with regard to the legacy of racial division that the war was unable to eradicate. The course will cover the causes of sectional conflict, the military problems of the war, the political, social, and economic conditions within both North and South, and the cultural and political sources of support and opposition to Reconstruction. Prerequisite: History 141 or 142, or Junior standing. 4 hours. Lipin.

## Hist 343 Industrialization, Labor and the State in America: 1877-1939

This course covers the rise of modern industry in the United States, the problem of labor conflict associated with it, and the steps taken by government, both at the state and the federal level, to regulate the new economy, beginning with laissez-faire governance of the late nineteenth century and concluding with the full elaboration of FDR's New Deal. The course focuses on social, economic and political forces. Prerequisite: History 142 or Junior Standing. 4 hours. Lipin.

## Hist 345 Gender and Sexuality in Victorian America

This course treats the development and spread of Victorian culture in the United States during the nineteenth century, particularly as it defined ideas about gender and sexuality. Focus is on the creation of women's sphere and ways in which women accommodated themselves to domesticity, rebelled against it, or used it themselves to discipline their husbands and sons. Pre-requisite: History 141 or 142, or Junior Standing. 3 hours. Lipin.

## Hist 400 Medieval Women

This course is a seminar on the attitudes towards, roles, work, and responsibilities of women in the period from the first century to the fifteenth century. Women in their roles as nuns, witches, prostitutes, brewers, mothers, queens, and consorts are discussed. The course is thematic as well as chronological, and investigates anthropological, feminist, and political theories and paradigms associated with the study of women generally. Assigned reading consists of primary sources, secondary monographs, and journals. Prerequisite: Junior standing or consent of instructor. 4 hours. Rampton.

## Hist 401 The World of Charlemagne

This course is a seminar on the age of Charlemagne and the European empire he forged in the early Middle Ages. The course material starts in the early sixth century as the Roman West was mutating, and ends with the decline of the Carolingian Empire in the face of Viking attacks and fratricidal warfare. The class concentrates on political and social/cultural developments in this very important period which formed a bridge from the Classical world to the beginnings of the modern age. The class uses anthropological paradigms as one type of historical methodology. Assigned reading consists of primary sources, secondary monographs and journal articles. Prerequisite: Junior standing or consent of instructor. 4 hours. Rampton.

## Hist 435 1968: Youth and Social Change in the World

This seminar explores the historical period surrounding the tumultuous events of 1968 in global perspective. It explores the events of 1968 as transnational phenomena with a particular emphasis placed upon the significant role played by youth in the various movements and uprisings worldwide. It considers the emergence of youth as a social, political, and cultural force within the larger ferment of the late-sixties and early-seventies. Junior standing or consent of Instructor. 4 hours. Jobs

## Hist 441 Environmental History

This course focuses on historical scholarship that has addressed the changing relationship between human societies and "nature." The course explores the development of ecological science and environmental politics; it also explores the ways in which Americans of European and indigenous background imposed their understandings on the landscape, and the consequences of these impositions. Other subjects include National Park Service policy, game conservation and class conflict, and the development of governmental agencies dedicated to protecting or controlling the environment. Prerequisite: Junior standing or consent of instructor. 3 hours. Lipin.

## Hist 450 Special Topics in History

This is a seminar or tutorial course focusing on topics of special interest to students and faculty. Prerequisite: Junior standing. Specific courses taught in this series will be noted in more detail in annual course schedule. Prerequisite: Junior standing. 3 hours. Staff.

## Hist 490 Senior Research Seminar

This course combines a variety of historical methods with major historical themes and controversies. It is required of all senior History majors prior to embarking on the thesis. Prerequisite: Senior standing in History. Annually in the fall. 3 hours. Staff.

## Hist 495 Independent Research

This is student-conducted individual research leading to a senior thesis. It is required of all History majors. Prerequisite: Senior standing in History and Hist 490. Annually in the spring. 3 hours. Staff.

## HUM ANITIES

The Humanities are composed of the courses in English, History, Media Arts and Communication, Philosophy, and World Languages and Literatures. While these departments have their own goals and specialized programs, they are united in a common endeavor to discover and make relevant the historical direction and essence of humans' cultural endeavors and to help students prepare for a life of quality and meaning. In this sense, the humanities are at the heart of liberal arts education.

## COORDINATED STUDIES IN HUM ANITIES MAJOR

By special arrangement, students may pursue a self-designed course of study in the Humanities. Interested students should submit, by the end of their sophomore year, a proposed program with an identifiable academic focus to the Humanities Division Chair. Students must plan a program with a minimum of 48 hours, 18 of which must be upper-division hours in addition to the upper-division hours planned for the Special Projects in the Humanities. Proposals should include:

1. 18 hours emphasis in one department in the division (English, Media Arts and Communication, Philosophy, or World Languages and Literatures)18
2. 24 hours divided among three other departments at Pacific (English, Media Arts and Communication, Philosophy, World Languages and Literatures, History, Fine Arts, Music, and selected Peace and Conflict Studies courses) ...... 24
3. Special Project in the Humanities for a minimum of six hours 6

This project should be approved by the Humanities Division Chair in consultation with the faculty adviser in the student's area of emphasis before the end of the student's junior year. The project must be planned as a part of either Hum 475 (Career Internship), Hum 476 (Overseas Study), or Hum 477 (Individual Study and Research). The student must complete a final written essay and give a formal presentation on his or her
project by the end of the senior year; the essay and presentation may in some cases be incorporated with another senior project.

Minimum Total Hours
48
Interested students should consult with Professor Dave Boersema, Humanities Division Chair.

## COURSE DESCRIPTIONS

## Humanities (Hum)

## Hum 100 Origins, Identity, and Meaning

A required seminar for first-semester first-year students that introduces students to college academic life and the skills needed for success in that life. It is a humanities-based course in its content, intended to engage students in the task of personal and cultural critique, and designed to provide a common learning experience for the entire first-year class. Students will also experience the educational advantages of having a diversity of teaching methods and approaches both within and among the various sections of the seminar; although cross-sectional themes, texts, and events may be adopted by current Hum 100 faculty, the course will be designed and taught in a manner thought most appropriate by the individual instructor. 4 hours. Staff. Fall semester.

## Hum 205 Japanese Culture

This course is a general introduction to Japanese people, society, and culture. Its major emphasis is on Japanese cultural values, patterns of behaviors, and ways of thinking manifested in their everyday life. Meets cross-cultural core requirement. 3 hours. Ikeda. Offered yearly.

## Hum 206 Latin America

A general introduction to the geography, peoples, and cultures of Latin America, and to their major social and political issues. Meets crosscultural core requirement. 3 hours. Cabello. Offered intermittently.

## Hum 207 German Culture

A general introduction to the literature, film, art and music of people in the German-speaking countries, focusing on the time period from the early 19th century to the present. Special emphasis on the intersection of culture with historical, social, and political events. 3 hours. French. Offered intermittently.

Hum 208 Francophone Africa and the Caribbean
A general introduction to the literature, culture, peoples, and politics of Francophone Africa and the French-speaking Caribbean, focusing in particular on the 20th century. Special emphasis on the Maghreb, Senegal, and Haiti. Meets crosscultural requirement. 3 hours. Steinert Borella. Offered intermittently.

## Hum 300 Mentoring in the Humanities

Each student serves as a mentor in one section of Humanities 100, the required First-Year Seminar course. Mentors attend all Hum 100 classes and co-curricular events and complete all of the readings. They do not take exams, write papers, or participate in the evaluation of students in Hum 100. The mentor is to act as a peer in helping first-year students make the transition from high school to college. They hold study sessions and help students with note taking, writing assignments, and the development of proper study skills. They work closely with faculty in developing the means to good mentoring in their section of Hum 100. They meet with the First-Year Seminar Coordinator one hour each week to review their work and to discuss pedagogical issues associated with teaching the humanities. Mentors are selected by an application process in the spring. 4 hours. Smith. Fall semester. Graded P/N.

## Hum 306 Latino Fiction

A study of the fiction of Latino writers representing the diverse Hispanic cultures of the U.S. with emphasis on the themes of immigration, culture adaptation, and the unique characteristics of the author's Hispanic heritage. Meets crosscultural core requirement. 3 hours. Cabello/ Christoph. Offered intermittently.

## Hum 325 Hispanics in the United States

A study of the history, literature, culture, and demographics of Hispanic groups in the U.S. An interdisciplinary approach will be taken toward placing in perspective the major political, social, and educational issues facing these groups. Students will simultaneously be engaged in a field internship in the Hispanic community. Prerequisite: Spanish 102. Meets cross-cultural requirement. 4 hours. Bates/ Cabello or Phillips/Christoph.

# INTERNATIONAL <br> PROGRAMS \& STUDY ABROAD 

Anne Frey, Director

Akiko Imamura, Assistant Director
The Office of International Programs services both international students and scholars and those interested in study abroad. Located on the second floor of Chapman Hall, International Programs provides immigration and cross-cultural services to Pacific University's community of international students scholars and faculty. International Programs also coordinates and administers semester and year long study abroad programs (see Study Abroad section), working with faculty to ensure academic integrity.

Staff from International Programs are active members in NAFSA: Association of International Educators, as well as other international education professional organizations, and represent Pacific University locally, regionally, and nationally in professional conferences, workshops, meetings, and other symposia.

## International Student and Faculty Advising

The Director and Assistant Director of International Programs hold the official designation from the United States Immigration and Naturalization Service (INS) as Designated School Official and the Director holds the title of Responsible Officer from the Department of State. The staff of International Programs is knowledgeable in the areas of $\mathrm{F}, \mathrm{J}$, and H regulations. Given the complex and ever-changing nature of immigration regulations, members of Pacific's international community are strongly advised to remain in close contact with International Programs for advising and counsel on immigration-related affairs.
Advising related to immigration and crosscultural issues are also available at the Office of International Programs. Any member of the international campus community having questions, or experiencing
difficulties with matters of immigration and cultural adjustment can utilize the International Program staff's familiarity with such issues.

## STUDY ABROAD

Anne Frey, Director<br>Kazuko Ikeda, Faculty Chair<br>\section*{Akiko Imamura, Assistant Director}

In accordance with Pacific University's mission statement and goals, Pacific University study abroad programs provide students with a unique opportunity to develop skills and knowledge which will prepare them for the diverse community, nation, and world. Pacific University considers international study important and encourages all students to gain exposure to other cultures, languages, and ways of life.
Study abroad is required for a major in modern languages and international studies, but is open to all students who meet the selection criteria. Pacific University students who participate in a study abroad program can earn a maximum of 31 credits which will count toward their graduation. However, students should consult with their faculty advisor(s) to determine which courses taken abroad can and cannot be used toward their majors or to satisfy other specific University requirements.
Pacific has an agreement with the Oregon University System (OUS) that gives Pacific students access to all OUS study abroad programs. These programs now include some 24 different study abroad sites in China, Ecuador, France, Germany, Japan and Mexico, to name a few.
Pacific also offers access to a wide array of other study abroad programs. European study in Austria, England, France, Spain, Wales, and The Netherlands is available in cooperation with Central College of Iowa and University of Minnesota. In Japan, Pacific is affiliated with Kansai Gaidai in

Hirakata, just outside of Osaka, and Nagoya Gakuin University in Nagoya. In Ecuador, Pacific has an affiliation with the Universidad Especialidades Espiritu Santo (UEES) in Guayaquil. In China, Pacific has sent students in recent years to Guanxi University in Gualin and has an exchange agreement with East China Normal University in Shanghai and Central University for Nationalities in Beijing.

## Eligibility

To be eligible for overseas study, students, typically sophomores or juniors, must demonstrate proper personal and academic preparation for the program, be in good academic standing, and have attended Pacific full time for one semester. Applications from freshmen to study abroad during their sophomore year will normally not be approved unless there is a compelling academic reason for the request. In general, applicants are expected to have an overall GPA of 3.0. For language programs the completion or equivalent of 202 is required. A personal essay, letters of recommendation, and a personal interview are also required of all applicants. Students with a GPA below 2.5 at the time of application will have their applications rescinded.

## Cost

The cost for most Pacific University approved study abroad programs will be equal to Pacific tuition, room and board. The University will also provide up to $\$ 750$ for transportation to and from the study abroad site. For specific program cost information, please contact the International Programs Office.
The University does extend financial aid for approved study abroad programs taking into account both the total expenses associated with a particular program and the demonstrated need of the individual student. The University may also facilitate student access to study abroad programs not affiliated with Pacific, but no financial aid from Pacific will be awarded for such unaffiliated programs.

## Application Deadline

The deadline for application to all Pacific study abroad programs is normally at the beginning of second semester (late Januaryearly February) preceding the academic year in which the study abroad program will be undertaken. Application forms, current cost data, and informational brochures about all study abroad programs are available in the International Programs Office, second floor, Chapman Hall.

## CHINESE

Pacific has an exchange agreement with East China Normal University (ECNU) in the dynamic city of Shanghai. Students study intensive Chinese language and culture while at ECNU and represent Pacific University in a variety of ways during their semester of academic year of study in China.
A sister school relationship provides students with an opportunity to study in Gualin at Guanxi University. Famous for its natural rock formations, Gualin is a smaller setting in which to study. Intensive Chinese language classes are offered along with classes for international students. Students are generally placed in dormitories, however, limited homestays can be arranged.
OUS provides a semester-long program at the Central University for Nationalities in Beijing. This program focuses on intensive language training at the beginning, intermediate, and advanced levels and offers a course entitled Chinese Culture and Chinese National Minorities that includes a threeweek study tour to two minority regions in China rarely visited by Westerners. International students are housed together in a University dormitory.

## ENGLISH

## Scotland and Ireland

Pacific has direct enrollment study abroad options at the University of Edinburgh in Scotland and at six colleges and universities in the Irish Republic and Northern Ireland. These institutions in Scotland and Ireland offer almost every course of study in a challenging academic environment. In all cases, a GPA of at least 3.0 is required to be considered.

## Wales

Students who choose to study in Wales attend Trinity College, a small liberal arts college in Carmarthen, a rural setting with opportunities for many outdoor activities, including canoeing, backpacking, camping, hiking, and rock climbing. Students may enroll in any of Trinity's five divisions. Students are housed in the University's residence halls along with their Welsh classmates.

## England

Students who participate in the Central College program in London enroll in British Studies courses and seminars on special topics in the arts, literature, and social sciences. Students may also enroll in up to two courses at the University of North London. Almost all students also participate in the internship program, choosing from more than 50 internships in a wide variety of fields.

## The Netherlands

Less then 40 minutes away from Amsterdam, Leiden is home to the nations oldest University, Leiden University. The Central College program in Leiden allows Pacific students to experience continental Europe while taking classes in English. While studying in Leiden, Pacific students can take courses in Art, Business, Economics, Management, Political Science, History, Psychology, Literature and Music. Students must take a beginning Dutch language course while participating on the program. All students live in Dutch residence halls and, whenever possible will be placed as the only American on the floor. All residence halls have single rooms with shared bathroom and kitchen facilities. Meals are not included on this program.

## FRENCH

Four French programs are available to Pacific students in Paris, Montpellier, Lyon, and Poitiers through Central College, University of Minnesota, and OUS, respectively.
The Central College program in Paris includes a two-week intensive French language program in Nice, prior to the start of classes at the Sorbonne. For the rest of
the year or semester, students are housed in residence halls located throughout the student sections of Paris.
The OUS year long program in Lyon offers students a chance to explore France's second largest city. The program begins with an intensive language program and then continues at the Centre International d'Etudes FranÁaises with the opportunity to take selected regular courses at four different universities in Lyon. Advanced students who pass a qualifying exam may also opt to take all of their courses in the French universities that participate in the program. There is a wide variety of housing options, ranging from homestays with families, to sharing apartments with French students, to staying in university dormitories. This program is for the full academic year only.
The OUS year long program in Poitiers exposes students to life in a small French city of 100,000 residents. This program also begins with homestays with French families and an intensive language program. Most students then continue with courses in the Department of French for Foreign Students of the University of Poitiers as well as regular University courses if their language skills are sufficiently advanced. As at Lyon, a wide variety of living arrangements, including homestays with French families, boarding houses, and University dormitories, are available. This program is also for the full academic year only.
The University of Minnesota's program in Montpellier, France offers a comprehensive academic and cultural experience at the intermediate and advanced language levels at the Universite Paul Valery. Montpellier is located in southern France, ten miles away from the Mediterranean. Classes are held at the Universite Paul Valery and are taught by faculty from the University. Housing options vary and include homestays, dormitory or apartment living.

## GERMAN

Pacific gives students of German the opportunity to pursue study abroad in either Germany or Austria through programs offered by OUS and Central College.

## Germany

The year-long OUS program in the state of Baden-Württemberg, the German sister state to Oregon, begins with a four-week program of intensive German. This is followed by study in regular German university courses at any one of nine different universities, each with its own distinctive academic emphasis. These are located in the cities of Stuttgart, Tubingen, Konstanz, Hohenheim, Ulm, Freiburg, Heidelberg, Mannheim, and Karlsruhe. In addition, students with special interests in education, music, and art may enroll at three more specialized institutions in Ludwigsburg and Stuttgart, although an audition and/ or portfolio may be required for admission to the music and art schools.

## Austria

The Central College German language program provides students with an opportunity to study in Austria for either a single semester or an entire year. The program begins with one or two month intensive German program at a Goethe Institute facility in one of several sites in southern Germany. Following the intensive German course, the remainder of the semester or year is spent at the 600-year-old University of Vienna in Austria. Students can take regular courses at the University in language and literature, fine arts, humanities, and the behavioral sciences. At the same time, students take three courses per semester on different aspects of art, music, and literature through Central College's Program in Vienna. Students are housed in residence halls scattered throughout the city which serve both international and Austrian students. Residence halls do not offer meal plans, and meal plans are not included in the Central program fee.

## JAPANESE

Pacific University enjoys a sister school relationship with two Japanese universities that allow Pacific students to enroll in their study abroad programs in Japan for either a semester or a full year.
Nagoya Gakuin is located in a scenic suburb of Nagoya and offers a comfortable campus atmosphere. Kansai Gaidai is located in Hirakata near Osaka and half an
hour train ride from Kyoto and Nara, the cultural and religious centers of traditional Japan. Both programs offer Japanese language classes and courses, taught in English, on the history and culture of Japan. At both schools, students may live either in an international dormitory or enjoy a home stay with a Japanese family arranged by the school.
In addition, under some circumstances, Pacific students may have access to yearlong OUS programs in Tokyo at Waseda University and Aoyama Gakuin University. At both universities, intensive Japanese is offered as well as a variety of courses, taught in English, in Japanese history, literature, politics, economics, and culture. Course work at Aoyama Gakuin, however, is especially focused on business, economics, and politics. At Aoyama Gakuin housing is provided in University dormitories with Japanese roommates; at Waseda University home stays with Japanese families are provided.

## SPANISH

## Ecuador

Pacific has a special relationship with the Universidad Especialidades Espiritu Santo (UEES) in Guayaquil, Ecuador's largest city, principal port, and main commercial center. UEES offers a one-semester program each fall for Pacific students. The program features homestays with carefully selected Ecuadorian families, a series of excursions in and out of Guayaquil, including trips to the Andean highlands, the Amazon basin and the Galapagos. The academic program includes service-learning with a local school or social service agency, intensive Spanish and course work in Latin American history, geography, economics, and literature.
Pacific students may also apply to the OUS program in Ecuador's capital city, Quito. Students may choose from one of two schools: Pontificia Universidad Catolica del Ecuador (PUCE) and Universidad San Francisco de Quito (USFQ). PUCE is located in the center of Quito and is a private, independent institution with 7,000 students. Universidad San Francisco de Quito (USFQ) is located in Cumbaya, a suburb of Quito and has 2,000 students. The program in Quito is available as either a year-long
program, or as a one-semester program in the fall and / or spring semesters. All students are housed with families for one semester with an option to move to an apartment for second semester students.

## Spain

A year-long or semester program is available through Central College at the University of Granada in southern Spain. The Central College program begins with a three week orientation. The orientation includes intensive Spanish and cultural orientation culminating in a language placement exam. Throughout the orientation and the semester, students are housed with Spanish host families. In Granada, students may choose from three different course options, including regular classes at the University of Granada for those who have passed the language placement exam. The Granada program also incorporates the opportunity for servicelearning projects in the local area.

## OTHER PROGRAMS

Pacific students also have access through the Oregon University System (OUS) to study abroad programs in South Korea and Thailand. However, Pacific does not offer language training in support of this study abroad option. More complete information about these, and other programs, is available in the International Programs Office.

## OVERSEAS PROGRAMS WINTER III

A variety of credit-earning overseas study programs are also available during Pacific's three week winter term (Winter III). These programs are faculty-led and vary from year to year. Recent program destinations have included Vietnam, India, Barcelona, Spain, Switzerland, London, England, Germany and Costa Rica. For an schedule of upcoming Winter III programs, contact the International Programs Office at 503-352-2913.

## INTERNATIONAL STUDIES

Nancy Christoph, Spanish, Chair
Jeffrey G. Barlow, (History), East Asian Studies Coordinator

Sara Steinert Borella, (French), Western European Studies Coordinator

Victor M. Rodríguez, (Spanish), Latin American Studies Coordinator

Susan U. Cabello, Spanish
Lorely French, German
Naoya Fujita, Japanese
Kazuko Ikeda, Japanese
Cheleen Mahar, (Anthropology)
Martha Rampton, History
Philip Ruder, Economics
Jeffrey G. Seward, Political Science
Seth Singleton, Political Science
Michael R. Steele, English
Ann Wetherell, Art History
International Studies is designed for highlymotivated students who plan careers in law, diplomacy, education, international research and the globalized marketplace of business and economics. National and state leaders have placed a high priority on international studies in order to meet the critical need for college graduates who are competent in world languages and who are familiar with world cultures. The national and regional commitment to internationalism in the United States and the increasing interdependence of nations around the world are reflected in a wide range of job opportunities in both govemment and the private sector.

W ithin the International Studies major, students are able to focus upon one of three international areas: East Asia, Latin America and Western Europe. International students who wish to major in IS may choose the American Studies option. Each area focus provides majors with a multidisciplinary background in a language and culture area. On campus International Studies sponsors lectures, festivals, music presentations, and filing.

## MAJOR IN <br> INTERNATIONAL STUDIES

Students are encouraged to apply for the International Studies major in the first semester of their sophomore year. Applications are available from the Director of International Programs, in the Office of International Programs on the second floor of Chapman Hall and from faculty members of World Languages and Literatures. Students who apply later in their academic career may find it difficult to complete the requirements of the major and still graduate from Pacific in four years, especially if they choose to spend an entire year in a study abroad program. Admission is selective and normally requires a 3.0 GPA. IS majors must maintain a GPA of at least 3.0 each semester to remain in the program.
Immediately after being accepted, students must consult with a member of the International Studies faculty (see list above) as well as the chair of International Studies and prepare a complete plan of courses that they intend to take to fulfill the requirements of the major. This plan should be updated and resubmitted upon return from the study abroad experience. As part of that plan, each major must declare an area interest (East Asia, Latin America or Western Europe).
International students (that is, foreign nationals studying at Pacific on a student visa) may select the American Studies option (see the separate requirements for this option set out below). In this case, the foreign language requirement and the study abroad requirement are waived. International students may also complete the regular International Studies major but may not use their native language to fulfill the foreign language requirement. Further, they may not use study in their home country to satisfy the study abroad requirement.
International Studies majors are strongly encouraged to complete a second major in a standard discipline. Students may also want to include a Humanitarian Center multicultural field experience or other relevant internship.
The goals and formal requirements for the major (except for international students choosing the American Studies option) are as follows:

## Goals for the Major

In successfully completing a major in International Studies a student will possess the following attributes:

- Strong written and oral communications skills
- Proven research and analytical skills
- Knowledge of the history and culture of a specific area of the world
- The ability to build on that knowledge to produce a final written thesis and related oral presentation
- Well-developed intercultural skills
- The ability to work collaboratively
- The ability to speak, read and write in a second or third language
- Experience in living and studying abroad


## Requirements: International Area Studies Focus

## One of the following

IS 201, ECON 329, PSY 160 ........................ 3
Base history course
related to area interest ............................... 3
Electives coherently
related to area interest
(includes 12 Study Abroad Credits) ....... 21
Foreign language study
at 300 -level or above ................................. 6
Research methods ....................................... 3
IS 399 Junior Tutorial ................. 2
IS 401 \& IS 402 Senior Thesis ................... 4

1. At least one semester of study abroad in a country related to the student's chosen area interest. The country chosen must have as one of its principal languages, the language the student has previously studied to fulfill the foreign language requirement of the major. Study abroad in English-speaking countries or programs conducted in English may not be used to fulfill this requirement.
Prior to study abroad, the student should fulfill at least the following requirements:
2. Foreign language study in one of the principal languages of chosen area interest through the 202-level.
3. One of the following to be chosen in consultation with International Studies advisor: IS 201 (Intercultural Communications) PSY 160 (Culture and Behavior) or ECON 329 (International Economics)
4. A base history course related to the student's chosen area interest. For East Asia, this would normally be HIST 112 East Asia; for Latin America, HIST / POLS 255 Latin American History or HUM 206 Latin America; for Western Europe, HIST 102 Western Civilization II. However, more specialized upper-division history courses approved in advance by the student's IS advisor may also be used to satisfy this requirement.

## In addition, the student must fulfill the

 following requirements before, during, or after the study abroad experience:5. At least 21 semester hours of electives chosen in consultation with the student's IS advisor to create a coherent program of study related to the chosen area interest. Such courses should be approved by students' IS or WORL advisors. No more than 12 semester hours from any single department or discipline and no more than 12 semester hours taken during study abroad may be applied to this requirement.
6. At least six hours of foreign language study at Pacific at the 300 -level or above after returning from the study abroad experience.
7. One course in theory or research methods to be taken prior to enrollment for IS 401 Senior Thesis. Note that students planning to spend the entire junior year abroad should complete this requirement prior to study abroad. Students also need to be aware that several of the courses approved for meeting this requirement have one or more prerequisites. The course chosen should be closely related to the research strategy appropriate to the student's senior thesis project. Approved courses which meet this requirement are the following:
Anth 301 Research Methods in Anthropology
Econ 321 Introduction to Econometrics
Engl 333 Theory of Literature
Engl 332 Introduction to Linguistics

Soc 300 Introduction to Social Research
Soc 301 Social Statistics
8. IS 399 Junior Tutorial/Seminar in which students work with individual professors to develop a polished senior thesis proposal and meet together in occasional seminar format to share their research proposals. Students who spend their entire junior year abroad must register for IS 399 as an independent study course in close collaboration with a Pacific professor and produce a senior thesis proposal during their second semester of study abroad. A contract for IS 399 while studying abroad should be prepared prior to departure for the study abroad site. A student may not research their thesis topic during their overseas study year unless their topic has been approved by their advisor at Pacific University.
9. IS 401 and IS 402 Senior Thesis in which the student prepares a senior thesis for a public and written presentation. These two semesters of Senior Thesis may not be taken concurrently. Students must make reasonable progress on their thesis project by the end of IS 401 in order to continue with their thesis work in IS 402. Students who do not meet this requirement will be asked to withdraw from the IS major.

## Requirements <br> American Studies Focus

## Available only to international students

1. IS 201 Intercultural Communications.
2. HIST 141-142 History of the United States.
3. Six hours of upper-division courses in American history.
4. Six hours of upper-division courses in American literature.
5. Twelve hours of electives chosen in consultation with the advisor to create a coherent program of study of the United States with at least six hours of electives outside the Departments of History and English.
6. The same requirements for a methodology course, junior tutorial, and senior thesis as all other IS majors.

International students for whom English is a second language and who elect the America concentration are exempt from the foreign language and study abroad requirements and take instead 27 hours in electives.

## COURSE DESCRIPTIONS

## International Studies (IS)

## IS 201 Intercultural Communication

This course develops awareness and skills for effective communication among people of different cultures. It explores problems related to value differences and examines perceptual relativity, cultural self-awareness, verbal and nonverbal behavior, value analysis, and communication strategies. For both United States and International students. 3 hours. Ikeda.

## IS 399 Junior Tutorial

Directed reading and research in the student's area of interest. Prerequisite: Junior Standing in IS. 2 hours. Staff.

IS 401-402 Senior Seminar and Thesis Sources, materials, and methods of research, writing, and critical analysis. Preparation and defense of major research project. Prerequisite: Senior Standing in IS. 2 hours per semester. Staff.

## IS 450 Special Topics in International Studies

This seminar course is an elective which focuses on topics of special interest to students and IS faculty. The course allows students to explore possible topics for their thesis and the methods for approaching those topics. Students may take the course concurrently with IS 401. Prerequisite: Senior standing and study abroad. 3 hours. Staff.

# MATHEMATICS AND COM PUTER SCIENCE 

Michael Boardman, Chair, Associate Professor, Mathematics

Michael C. Clock, Professor, Mathematics
Bogdana Georgieva, Assistant Professor, Mathematics

Christine Guenther, Assistant Professor, Mathematics

Michelle Hribar, Assistant Professor, Computer Science

Shereen Khoja, Assistant Professor, Computer Science

Christopher Lane, Assistant Professor, Mathematics and Computer Science

Nancy Ann Neudauer, Assistant Professor, Mathematics

Douglas J. Ryan, Professor, Computer Science
The Department of Mathematics and Computer Science offers majors and minors in both M athematics and Computer Science.

Our Computer Science program is characterized by small class sizes, close interaction with faculty, and a curriculum with a breadth and depth rarely encountered in a small university. Because the department follows the ACM (Association for Computing Machinery) curriculum guidelines, students graduating with a degree in Computer Science from Pacific are well-prepared to pursue immediate employment in the computer/electronics industry or continue on to graduate school. With 100 percent placement in the field since the program inception, our graduates are employed at industry leaders such as Intel, M icrosoft, and Hew lett Packard.

The M athematics major provides students a strong mathematics foundation with emphasis in several key areas including analysis, abstract structures and applied mathematics. Students completing this major are able to pursue careers in applied mathematics, enter graduate programs in mathematics and other fields, or complete certification requirements to teach mathematics in K - 12 (see the Education section of this catalog for more details).

## Department Goals

The department maintains common goals for all of its students (majors, minors and others). Students in our courses will learn strategies for abstract problem solving, gain a basic understanding of computers and the broad implications of their use, be exposed to mathematics as a liberal art, and be given the opportunity to hone their computational skills.

For students majoring in Computer Science, we provide, within the context of the liberal arts, excellent preparation for high-tech careers or graduate study in Computer Science.

Students with a program of study in Mathematics will learn methods of mathematical modeling, abstraction, argumentation, and abstract mathematical constructs and paradigms, develop competence in carrying out algorithms, and learn to read and speak the language of mathematics. A mathematics degree from Pacific prepares students for a wide variety of post-graduate activities including work in mathematics and science related fields or graduate study in mathematics or education.

## MAJOR IN COM PUTER SCIENCE

## Requirements

| Math 206 | Computational |
| :--- | :--- |
| Linear Algbra ..................... 3 |  |

Math 226 Calculus I ........................... 4
Math 240 Discrete Mathematics ......... 3
CS 150 Introduction to Computer Science I 4
CS 250 Introduction to Computer Science II .3
CS 300 Data Structures ..... 3

CS 310 Theoretical
Computer Science ..... 3

CS 320 Assembly Language
Programming ..... 3
CS 385 Junior Seminar ..... 1
CS 430 Computer Architecture ..... 3
CS 460 Operating Systems ..... 3

| CS 480 | Principles of <br> Compiler Design ................ 3 |
| :--- | :--- |
| CS 481 | Compiler Laboratory I ....... 1 |
| CS 490 | Senior Capstone I ............. 2 |
| CS 492 | Senior Capstone II .............. 3 |
| Six credits selected from  <br> the following courses ........................... 6  <br> CS 305 Advanced Programming <br> for Multimedia <br> CS 315 Introduction to Human <br> Computer Interaction <br> CS 360 Special Topics* <br> Phy 364 Electronics |  |

* Note: CS 360 can be counted twice as an elective as long as the topics are different.


## Restrictions

1. At least 18 hours of upper-division CS courses must be taken from Pacific University (Credit by examination not acceptable).
2. At most 1 course passed with a grade below "C-" can count towards the Computer Science major.
3. All courses in the Capstone sequence (CS 385, CS 490, CS 492) must be passed with a grade of "C" or better.

## MINOR IN COM PUTER SCIENCE

$\begin{array}{ll}\text { CS 150 } & \text { Introduction to } \\ & \text { Computer Science I............. } 4 \\ \text { CS 250 } & \text { Introduction to } \\ & \text { Computer Science II ........... } 3 \\ \text { Electives } & \end{array}$
Electives are selected from:
CS 205, CS 230, CS 300, CS 305, CS 310,
CS 315, CS 320, CS 360, CS 430, CS 460,
CS 480 / 481, Math 206, Math 240,
Math 324, Phys 364.
At least one of the following:4

Math 125 Precalculus
Math 226 Calculus
20

## COM PUTER SCIENCE, COOPERATIVE PROGRAM

Contact Professor Ryan
A 3-2 program requiring five years of study for the well-prepared student, three years at Pacific and two years at Oregon Health and Sciences University. Degrees awarded are a baccalaureate degree (normally in Mathematics, Computer Science or Applied Science) from Pacific, and a Master of Science degree in Computer Science from the Oregon Graduate Institute at OHSU. Upon completion, the two degrees will be awarded concurrently.
The student applies for the program during the sophomore year. During the senior year, the student will transfer to OHSU to continue study in Computer Science and specialized Mathematics.

## Requirements

Students planning on a cooperative program must complete the courses below.
In addition, students must complete all other Pacific University requirements for a B.S. degree with a major of their choice normally Applied Science, Computer Science or Mathematics.
CS 150 Introduction to $\begin{aligned} & \text { Computer Science I............. } 4\end{aligned}$
CS 250 Introduction to $\begin{aligned} & \text { Computer Science II ........... } 3\end{aligned}$
$\begin{array}{ll}\text { CS } 320 & \begin{array}{l}\text { Assembly Language } \\ \text { Programming ..................... } 3\end{array}\end{array}$
Math
226-227 Calculus I-II ......................... 8
Upper-Division Electives selected
from C.S. 310, 360, 430, 460, 480 / 481
OR
Phy 364
24-27
The student must also complete at least 45 quarter hours of graduate study in computer science and engineering, including a satisfactory written thesis.

Restriction: Six of the elective credit hours must be upper-division Computer Science courses taken at Pacific University.

COURSE DESCRIPTIONS

## Computer Science (CS)

Note that all prerequisite courses must be completed with a grade of "C" or better.

## CS 120 The Information Era

An exploration, with the use of computers, of how information technology is playing an ever increasing role in society. Students will explore a host of topics for using and accessing information such as: searching and navigating the Internet, the world wide web (www), interactive multimedia, communications, and ethics. This is not a programming class and is intended to give students the ability to access and manipulate information in a variety of ways. Class includes lab projects. 3 hours.

## CS 130 Introduction to Software Tools

Many disciplines are finding the need to gather, manipulate, analyze, and graph data. This course will introduce students to some software tools that aid in this process. Software which is widely used at Pacific includes: StatView, Excel, Equation Editor, Power Point and Word. Class includes lab projects. Prerequisite: Math 125. 2 hours (10 weeks). Students cannot get credit for both CS130 and 230.

## CS 150 Introduction to Computer Science I

A first course in computer programming fundamentals: no previous programming experience is required. This course will be taught in C++ and include programming projects in a variety of areas. Course content includes data types, selection structures, repetition structures, functions, arrays, structures and I/O. In addition to three lectures per week, the class meets weekly for a laboratory session. Corequisite: Math 125. 4 hours.

## CS 205 <br> Introduction to Programming for Multimedia

This course introduces students to the programming process and logic. Multimedia projects will be discussed and developed using state of the art scripting and macro languages such as Director and Lingo, Javascript/Java, HTML, and/or Perl. Prerequisite: CS 120 or equivalent. Students cannot get credit for both CS 205 and CS 305. Alternate Years 2002-2003.

This course covers the same topics as CS 130 in the first ten weeks. The last four weeks are spent doing more intense work with StatView, Excel, and Maple. Some programming in Maple will be required. Class includes lab projects. Prerequisite: Math 226.3 hours 14 weeks. Students cannot get credit for both CS 130 and 230.

## CS 250 Introduction to Computer Science II

A second course in programming that is a continuation of CS 150. The focus of this course is object-oriented programming. Concepts taught include classes, function and operation overloading and inheritance. These concepts will be reinforced with topics such as beginning data structures and windows programming. Prerequisite: CS 150. 3 hours

## CS 300 Data Structures

Data structures are fundamental to advanced, efficient programming. Topics including stacks, queues, linked lists, trees, graphs, hash tables, search and sorting will be covered in discussions centering around more sophisticated programming concepts and problem solving techniques. Prerequisite: CS 250. 3 hours.

## CS 305 Advanced Programming for Multimedia

An introduction to state of the art scripting and macro languages such as Director \& Lingo, JavaScript \& Java, Perl, and HTML which will be used for Multimedia development. This course will cover and include projects on topics such as Interactive Multimedia on CD ROM, Animation \& Sound, Digital Video, the Internet, and Client/Server applications. Students cannot get credit for both CS 205 and CS 305. Prerequisite: CS 250. 3 hours. Offered occasionally.

## CS 310 Theoretical Computer Science

This course introduces the foundations of formal language theory, computability, complexity, shows the relationship between automata and various classes of languages, addresses the issue of which problems can be solved by computational means and studies the complexity of their solutions. It also studies Turing machines and equivalent models of computation, the Chomsky hierarchy, context free grammars, push-down automata, and computability. Prerequisite: CS 250. 3 hours. Alternate years 2002-2003.

## CS 315 <br> Introduction to Human Computer Interaction

Humans interact with computers through user interfaces; designing useful and effective interfaces involves many challenges for both designers and programmers. This course will cover the basics of the field of human computer interaction including the human factors of interactive software, methods to develop and assess interfaces, interaction styles and design considerations. The class will include research and design projects as well as a programming project. Prerequisite: CS250 or MedA260. 3 hours. Alternate Years 2002-2003.

## CS 320 Assembly Language Programming

An introduction to digital logic, machine structure and instruction sets, assembly language programming (arrays, subroutines, I/O conversion, sorting, searching, lists, look-up tables), interrupts and resets. (Class includes lab projects using MASM) Prerequisite: CS 250 or instructor consent. 3 hours.

## CS 360 Special Topics

Consists of an area in Computer Science that is getting a great deal of attention. Current topics include (but are not limited to) the following: Windows Programming -This class uses Visual C++ to introduce basic concepts of GUI. (Class includes lab projects). Interactive Computer Graphics-An introduction to interactive computer graphics, including: bit-mapped graphics (low level routines), line drawing algorithms, circle generators, two-dimensional transformations, clipping and windowing, solid area scan conversion, three-dimensional transformations, fractals, and ray tracing. (Class includes lab projects using C/C++, Java, and/or OpenGL). Survey of Programming Languages-An overview of programming languages to include the fundamentals of procedural, functional, and ob-ject-oriented languages. (Class includes lab projects using C/C++, Modula-2, and LISP). Prerequisite: CS250 or instructor consent. 3 hours.

## CS 385 Junior Seminar

This course will expose students to the various fields of Computer Science through weekly seminars by faculty and outside speakers. Students will research a topic of their choice for their Senior Capstone Project. This course culminates in the presentation of the student's project and project specification. Prerequisite: CS major with Junior standing and at least one 400 level CS class (C or better) taken at Pacific. 1 hour.

## CS 430 Computer Architecture

An introduction to the hardware design aspects of all major components of a computer system. Topics include computer arithmetic, Boolean algebra and gate networks, logic design, memory (virtual and cache), I/O devices, pipelined instruction execution, bus structures, microprogramming, and RISC/CISC philosophies. Prerequisite: CS 320. 3 hours. Alternate years 2002-2003.

## CS $460 \quad$ Operating Systems

The Operating System as a resource manager. Topics to include: Processes and threads, CPU scheduling, memory management, I/O systems, distributed file systems, multiprocessor operating systems, and case studies. Prerequisite: CS 320. 3 hours. Alternate years 2003-2004.

## CS $480 \quad$ Principles of Compiler Design

An introduction to compilers. Topics to include: attribute grammars, syntax-directed translations, lex, yacc, LR(1) parsers, symbol tables, semantic analysis, and code generation. Prerequisite: CS310. 3 hours. Alternate years. 2002-2003.

## CS 481 Compiler Laboratory

A laboratory course which must be taken concurrently with CS 480. Involves coding, verification, and validation of a compiler. 1 hour. (Class project is implemented on a SUN Ultra 5 using C/Unix). Alternate years 2002-2003.

## CS $490 \quad$ Senior Capstone I

The Software Life Cycle contains several stages including: Requirements Specification, Analysis, Design, Implementation, and Testing $\mathcal{E}$ Verification. Students will complete the Requirements Specification, Analysis, and Design of the project researched during CS 385. Prerequisite: CS 385. 2 hours.

## CS 492 Senior Capstone II

During this course, students will complete Implementation, Testing, and Presentation of the project that was designed during CS 490. Prerequisite: CS 490. 3 hours.

## MAJOR IN MATHEMATICS

## Core

## Mathematics Courses

Math 226,227,228 Calculus I-III .............. 12
Math 240 Discrete Mathematics ......... 3
Math 306 Linear Algebra .................... 3
Math $311 \quad \begin{aligned} & \text { Ordinary Differential } \\ & \\ & \text { Equations ............................ } 3\end{aligned}$
Math 490 Senior Capstone .................. 2

## Supporting Courses

CS 150 Introduction to Computer

Phys 232 General Physics I ................. 4

## Elective Groups

At least one course from each of the following groups

## Analysis

3Math 405 Real Analysis
Math 412 Complex Analysis
Abstract Structures .....  3
Math 402 Abstract Algebra
Math 440 Topics in Algebraic Structures
Applied Mathematics ..... 3
Math 324 Numerical Analysis
Math 411 Partial Differential Equations
Supporting Courses3-4
CS 250 Introduction to Computer Science II
Phys 242 General Physics II
Phys 380 Classical Mechanics
12-13
General ElectivesAt least two other mathematicscourses numbered 300 or higher6

Restriction: At most, one course passed with a grade below "C-" can count towards the mathematics major.

## MINOR IN MATHEM ATICS

## Core

Math 226, 227 Calculus I \& II ....................... 8
Math 240 Discrete Mathematics ......... 3
CS 150 Introduction to Computer Science I4
Electives ..... 9

At least nine additional credits of mathematics courses numbered 200 or higher, excluding Math 221 or Math 223. At least two of these courses must be numbered 300 or higher.

Restriction: At most 1 course passed with a grade below "C-" can count towards the mathematics minor.

## COURSE DESCRIPTIONS

Mathematics courses of at least three credits numbered 165 and above satisfy the mathematics core requirement.
Note: All prerequisite courses must be completed with a grade of " C " or better.

## Mathematics (Math)

Math 122 College Algebra
This course offers students the opportunity to polish their general algebra skills in preparation for precalculus, statistics and other courses where a working knowledge of algebra without trigonometry is a prerequisite. Throughout the course, students are asked to translate information back and forth between grammatical and mathematical forms. Topics include modeling, graphing and analysis with linear, quadratic and general polynomial and exponential expressions, solving linear, quadratic and general polynomial equations and inequalities and curve fitting. Applications from social and natural sciences are emphasized as is using the topics from the course in mathematical modeling. 4 hours.

## Math 125 Precalculus

Most science and mathematics courses require that students be comfortable working with functions symbolically, graphically and numerically. Precalculus offers students the background they need to pursue these courses. An integral component of the course is translating information back and forth between grammatical and mathematical forms. Concentrating on functions
and their properties, the course includes the study of several classes of functions including polynomial, rational, exponential, logarithmic, and trigonometric functions. The conic sections are also studied. Prerequisite: Math 122 or placement. 4 hours.

## Math 165 Modern Topics in Mathematics

 This course exposes students to abstraction and problem solving with mathematical constructs. Elements of descriptive and inferential statistics give students the foundation to understand visual and numerical representations of data and to make informed judgments about survey and experimental study results. Various topics chosen from among management science, voting theory, game theory, symmetry, proportionality, or other modern topics offer the opportunity to see connections of mathematics to business, political science, art and other fields. 3 hours.
## Math 206 Computational Linear Algebra

This course is intended as an introduction to Linear Algebra with emphasis on the computational aspects of the material. Topics covered include matrices, determinants, Gaussian elimination, vector spaces, eigenvalues and eigenvectors, orthogonal matrices and least squares. This course will include programming assignments in Maple and/or other computer algebra systems. Corequisite: Math 226. 3 hours. Alternate years 2003-2004.

## Math 207 General Elementary Statistics

A great deal of modern research in the social and natural sciences relies upon the mathematical theories of probability and statistics. This course will introduce students to the basic theory and practice of statistics. Emphasis is on the general ideas of hypothesis testing and estimation. Other topics include classification and presentation of data, descriptive statistics, basic probability distributions, and correlation and regression. Prerequisite: Math 122 or placement. 3 hours.

## Phil/Math 212 Language and Logic

This course is a survey of formal syntactic and semantic features of language, including topics such as sentential logic, predicate logic, axiomatic systems and set theory, and nonclassical extensions such as multivalued logics. 3 hours.

## Math 221 Foundations of Arithmetic

Designed for elementary education majors. Elements of logic, numeration, the number systems of arithmetic, elementary number theory, the algorithms of arithmetic. 3 hours. Alternate years 2002-2003.

## Math 223 Foundations of Geometry

 Designed for elementary education majors. Intuitive geometry in two and three dimensions, systems of measurement, estimation and approximation. 3 hours. Alternate years 2003-2004.
## Math 226 Calculus I

The study of functions and their rates of change. Topics include the concept of derivative as rate of change, limits and continuity, differentiation and its applications, Intermediate, Extreme and Mean Value Theorems, introduction to integrals, and the Fundamental Theorem of Calculus. Prerequisite: Math 125 or placement. 4 hours.

## Math 227 Calculus II

Investigation of single variable integration including techniques of symbolic integration, numerical integration and error analysis, applications of integration, and improper integrals. Infinite sequences, infinite series, and Taylor series will be introduced. Prerequisite: Math 226. 4 hours.

## Math 228 Calculus III

The study of calculus of several variables. Topics include visualization techniques, vectors and solid analytic geometry, vector arithmetic, partial differentiation and its applications, gradients, optimization techniques, iterated integrals, line integrals, divergence, curl and related theorems. Prerequisite: Math 227. 4 hours.

## Math 240 Discrete Mathematics

This course introduces the fundamentals of number systems, sets, functions and relations, logic and proof, elementary combinatorics, Boolean algebra and graph theory. It plays the role of a transition course for mathematics majors, moving them from calculus to the higher level courses in mathematics, and as an important course in logic for computer science majors. Prerequisite: Math 125 or placement. Math 226 strongly recommended. 3 hours.

## Math 301 Mathematical Modeling

A wide variety of physical and social systems can be described and analyzed using mathematics. In this course, students will learn about the mathematical modeling process through examination and analysis of frequently used models in physics, chemistry, biology and other sciences. Students will also experience generating and testing new models. Prerequisite: Math 226. 3 hours. Alternate years 2002-2003.

## Math 306 Linear Algebra

Geometrical vectors; their applications and basic properties; real vector spaces; dependence, basis, and dimension; systems of linear equations; linear transformations and matrices; determinants; quadratic forms. Emphasis on argumentation. Prerequisite: Math 226, Math 240. 3 hours.

## Math 311 Ordinary Differential Equations

Ordinary differential equations and their applications. Topics include the theory of linear equations, investigations of non-linear equations, systems of equations, numerical methods, stability, long term behavior and Laplace transforms. Emphasis is placed on both quantitative and qualitative descriptions of solutions. Prerequisite: Math 227. 3 hours. Alternate years. 2003-2004.

## Math 316 Mathematical Probability

Summary and display of data, properties of probability, discrete and continuous distributions, moment-generating functions, central limit theorem, and transformations of random variables. Prerequisite: Math 228, Math 240. 3 hours. Alternate years. 2003-2004.

## Math 321 Higher Geometry

$A$ rigorous study of both Euclidean and non-Euclidean geometries. Prerequisite: Math 240. 3 hours. Alternate years. 2002-2003.

## Math 324 Numerical Analysis

Linear difference equations, iteration, acceleration of convergence, interpolating polynomials, Fourier analysis, numerical differentiation and integration. Prerequisite: Math 227. 3 hours. Alternate years. 2002-2003.

## Math 385 Junior Seminar

Designed to acquaint the mathematics major with recent advances in mathematics, help synthesize the student's mathematical knowledge, and provide experience in the oral presentation of mathematical topics. Prerequisite: Mathematics major or minor with junior standing, and at least 6 hours of mathematics courses numbered 300 or higher. Admission is also possible with instructor consent. 1 hour

## Math 402 Abstract Algebra

A survey of fundamental concepts in abstract algebra. Topics may include Group theory, including quotient groups, fundamental results on group homomorphisms and the study of finite groups; Ring theory, including fundamen-
tal homomorphism theorems, quotient rings and Euclidean rings, vector spaces and modules; Field theory including field extensions, Galois theory and classical results concerning constructibility and solvability. Prerequisite: Math 240, Math 306. 3 hours. Alternate years. 2002-2003.

## Math 405 Real Analysis

A rigorous treatment of the limit concept, continuity, differentiation and integration. Sequence and series convergence, with some attention to regular methods of summability. Uniform and pointwise convergence of sequence and series of functions. Prerequisite: Math 228, Math 240. 3 hours. Alternate years. 2003-2004.

## Math 411 Partial Differential Equations

Addresses solution methods for the three basic partial differential equations of mathematical physics: the heat, wave and potential equations. Methods covered will include power series, Fourier series, Laplace transform methods, separation of variables, and the method of characteristics. Initial and boundary data will also be covered, as well as physical applications and numerical simulations of solutions. Special topics as time permits. Prerequisite: Math 228, Math 311. 3 hours. Alternate years. 2003-2004.

## Math 412 Complex Analysis

Complex numbers, analytic functions, elementary functions, mapping by elementary functions, integrals, series, residues and poles, conformal mapping. Prerequisite: Math 228, Math 240. 3 hours. Alternate years. 2002-2003.

## Math 440 Topics in Algebraic Structures

This course covers various important subjects in mathematics in which algebraic structures play a central role, introducing algebraic ideas by their applications to these fields. Topics may include number theory, matrix groups, topology, coding theory and algebraic geometry. Prerequisite: Math 240, Math 306. 3 hours. Alternate years. 2003-2004.

## Math 490 Senior Capstone

This course is intended as a senior capstone experience for mathematics majors. Students will have the opportunity to use their mathematical skills and knowledge to investigate projects of their choice under the supervision of faculty. Prerequisite: Mathematics major or minor, Senior standing, and at least 9 hours of mathematics courses numbered 300 or higher. 2 credits.

# MEDIA ARTS \& COMM UNICATIONS 

Dave Cassady, Chair, Associate Professor<br>Michael Geraci, Assistant Professor<br>Johanna Hibbard, Assistant Professor<br>Melissa Jones, Assistant Professor<br>Samuel Mathies, Assistant Professor and Director of Forensics

A major in media arts prepares students for careers in a variety of media-related fields including journalism, broadcasting, video, film and multimedia production, public relations and advertising. The program emphasizes theoretical and social aspects of the media as well as the creative and technical components.

In addition to course work, students are able to gain further experience through work with student media outlets such as the student newspaper (Index), television productions (Pacific Productions), and radio station (KPUR) and a variety of campus integrated media projects. All student publications are open to any Pacific student.

Qualified Media Arts students are also eligible for internships in professional media.

Students interested in a major in Media Arts or careers in the media and related fields should consult the department chair, Dave Cassady.

## Departmental Goals

The overall goal of the Media Arts Department curriculum is to produce graduates who are technically and aesthetically proficient in creating mass media and non-media communication and knowledgeable in the legal, ethical and social aspects of the media.
Specific goals include:

- Developing graduates who are capable of understanding communication in a media, organizational, interpersonal and social context.
- Providing students with an understanding of the history and social and cultural roles of mass media in society, both
through courses specifically focused on these topics and by incorporating these themes into other, production-oriented courses.
- Developing in students an aesthetic understanding of media production and technical proficiency in media areas such as video and visual production, writing and computer skills.


## MAJORS IN MEDIA ARTS

Students in media arts at Pacific may major in one of five areas: journalism, video production, integrated media, film production or general media arts. Students may receive credit for more than one major (journalism, video, integrated media or film only) by completing the required courses in each major. In addition to the media arts major requirements, students must also complete a minor or second major in an area outside of Media Arts or may design, with the consent of the faculty, an 18-hour program of study outside the department. The 18 -hour program must include at least nine upper-division hours.

## GENERAL MEDIA ARTS MAJOR

## Requirements

MedA 111 Cultural and Historical Foundations ..... 3
MedA 112 Modern Mass Media ..... 3
MedA 225 Black and White Photography ..... 3
MedA 240 Writing for Print Media ..... 3
MedA 250 Elements of Video Production ..... 3
MedA 260 Elements of Multimedia Production ..... 3
MedA 311 Writing for Electronic Media ..... 3
MedA 422 Media Criticism ..... 3
MedA 434 Mass Media Law and Regulation ..... 3
MedA 495 Senior Project .....  2
MedA 496 Senior Project ..... 2
Upper division Media Arts electives ..... 6

## JOURNALISM MAJOR

## Requirements

MedA 111 Cultural and Historical Foundations ..... 3
MedA 112 Modern Mass Media ..... 3
MedA 225 Black and White Photography ..... 3
MedA 240 Writing for Print Media ..... 3
MedA 340 Reporting ..... 3
MedA 363 Publication Design ..... 3
MedA 370 Advanced Reporting ..... 3
MedA 422 Media Criticism ..... 3
MedA 434 Mass Media Law and Regulation ..... 3
MedA 495 Senior Project ..... 2
MedA 496 Senior Project ..... 2
Upper division Media Arts electives ..... 6
37
VIDEO PRODUCTION MAJOR
Requirements
MedA 111 Cultural and Historical Foundations ..... 3
MedA 112 Modern Mass Media ..... 3
MedA 120 Survey of Film ..... 3
MedA 250 Elements of VideoProduction .....  3
MedA152/352 Pacific Prsoductions ..... 2
MedA 301 Special topics: Film Theory OR

3

3

3

3

3

3

3

3 ..... 3

MedA 302 Documentary Film

MedA 302 Documentary Film

MedA 302 Documentary Film

MedA 302 Documentary Film

MedA 302 Documentary Film

MedA 302 Documentary Film

MedA 302 Documentary Film

MedA 302 Documentary Film .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3

MedA 311 Writing for

MedA 311 Writing for

MedA 311 Writing for

MedA 311 Writing for

MedA 311 Writing for

MedA 311 Writing for

MedA 311 Writing for

MedA 311 Writing for    Electronic Media    Electronic Media    Electronic Media    Electronic Media    Electronic Media    Electronic Media    Electronic Media    Electronic Media .....  .....  .....  .....  3 .....  .....  .....  .....  3 .....  .....  .....  .....  3 .....  .....  .....  .....  3 .....  .....  .....  .....  3 .....  .....  .....  .....  3 .....  .....  .....  .....  3 .....  .....  .....  .....  3

MedA 320 Studio Video

MedA 320 Studio Video

MedA 320 Studio Video

MedA 320 Studio Video

MedA 320 Studio Video

MedA 320 Studio Video

MedA 320 Studio Video

MedA 320 Studio Video .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3

MedA 330 Field Video

MedA 330 Field Video

MedA 330 Field Video

MedA 330 Field Video

MedA 330 Field Video

MedA 330 Field Video

MedA 330 Field Video

MedA 330 Field Video .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3

MedA 422 Media Criticism

MedA 422 Media Criticism

MedA 422 Media Criticism

MedA 422 Media Criticism

MedA 422 Media Criticism

MedA 422 Media Criticism

MedA 422 Media Criticism

MedA 422 Media Criticism .....  .....  ..... 3 .....  .....  ..... 3 .....  .....  ..... 3 .....  .....  ..... 3 .....  .....  ..... 3 .....  .....  ..... 3 .....  .....  ..... 3 .....  .....  ..... 3

MedA 434 Mass Media Law and

MedA 434 Mass Media Law and

MedA 434 Mass Media Law and

MedA 434 Mass Media Law and

MedA 434 Mass Media Law and

MedA 434 Mass Media Law and

MedA 434 Mass Media Law and

MedA 434 Mass Media Law and  Regulation  Regulation  Regulation  Regulation  Regulation  Regulation  Regulation  Regulation .....  .....  3 .....  .....  3 .....  .....  3 .....  .....  3 .....  .....  3 .....  .....  3 .....  .....  3 .....  .....  3
MedA 495 Senior Project
MedA 495 Senior Project
MedA 495 Senior Project
MedA 495 Senior Project
MedA 495 Senior Project
MedA 495 Senior Project
MedA 495 Senior Project
MedA 495 Senior Project .....  2 .....  2 .....  2 .....  2 .....  2 .....  2 .....  2 .....  2
MedA 496 Senior Project
MedA 496 Senior Project
MedA 496 Senior Project
MedA 496 Senior Project
MedA 496 Senior Project
MedA 496 Senior Project
MedA 496 Senior Project
MedA 496 Senior Project ..... 2 ..... 2 ..... 2 ..... 2 ..... 2 ..... 2 ..... 2 ..... 2
MedA 401 Special Topics:
MedA 401 Special Topics:
MedA 401 Special Topics:
MedA 401 Special Topics:
MedA 401 Special Topics:
MedA 401 Special Topics:
MedA 401 Special Topics:
MedA 401 Special Topics: Topographies Topographies Topographies Topographies Topographies Topographies Topographies Topographies
INTEGRATED MEDIA MAJOR
Requirements
Core curriculumMedA 111 Cultural and HistoricalFoundations3
OR

OR
MedA 112 Modern Mass Media
3
Art 110 Basic Design
Art 217 Computer Graphics DesignOR
Art 218 Computer Graphics Illustration

Illustration ..... 3

- 


## FILM PRODUCTION MAJOR

The film production concentration is offered in cooperation with the Northwest Film Center in Portland. Students majoring in Film Production will have the fees for courses taught by Northwest Film Center faculty waived for up to 20 credits. No more than 20 hours of coursework from the Film Center may count toward the 124 -hour requirement.

## Requirements

MedA 105 Art of Filmaking.................. 3
$\begin{array}{ll}\text { MedA } 111 & \begin{array}{l}\text { Cultural and Historical } \\ \text { Foundations ........................ } 3\end{array}\end{array}$
MedA 120 Survey of Film ..................... 3
MedA 205 16mm Film Editing ............. 2
MedA 210 16mm Cinematography ..... 3
$\begin{array}{ll}\text { MedA } 250 & \text { Elements of } \\ & \text { Video Production ................ } 3\end{array}$
$\begin{array}{ll}\text { MedA } 301 & \text { Special topics: Film Theory } \\ & \text { OR }\end{array}$
$\begin{array}{ll}\text { MedA } 401 & \text { Special Topics: } \\ & \text { Topographies ...................... } 3\end{array}$
MedA 302 Documentary Film .............. 3
MedA 321 Sound Design ...................... 2
MedA 422 Media Criticism ................... 3
MedA 430 Sync Sound Production ..... 4
$\begin{array}{ll}\text { MedA } 434 & \begin{array}{l}\text { Mass Media Law } \\ \text { and Regulation .................... } 3\end{array}\end{array}$
MedA 495 Senior Project ....................... 2
MedA 496 Senior Project ...................... 2

Foundations ........................ 3

| Art 226 | Photography I.................... 3 | Marketing |  |
| :---: | :---: | :---: | :---: |
| CS 120 | The Information Era .......... 3 | BA 309 | Marketing......................... 3 |
| CS 205 | Programming for <br> Multimedia $\qquad$ | BA 333 | Consumer Behavior ........... 3 |
| MedA 260 | Elements of <br> Multimedia Design 3 | BA 443 | Special Topics <br> in Marketing .3 |
| MedA 305 | Designing for <br> Electonic Media $\qquad$ |  | 9 |
| MedA 311 | Broadcast Writing ............... 3 OR |  | Total for major: 46-51 |
| Engw 207 |  |  |  |
| OR 208 | Creative Writing ................ 3 | MEDIA ARTS M INORS |  |
| MedA 350 | Integrated Media <br> Production ........................... 3 | Requirements |  |
| MedA 360 | Integrated Media <br> Project Design | GENERAL MedA 112 | MEDIA ARTS Media in Modern Society .. 3 |
| MedA 434 | Mass Communication <br> Law and Reg. ...................... 3 | MedA 225 |  <br> White Photography $\qquad$ |
| MedA 495 | Senior Project I .................. 2 | MedA 240 | Mass Media Writing ........... 3 |
| MedA 496 | Senior Project II ................. 2 | MedA 250 | Elements of Production...... 3 |
|  | OR | MedA 260 | Introduction to |
| MedA 475 | Internship (In lieu of senior project) .................. 4-6 | MedA 311 | Integrated Media $\qquad$ <br> Writing for <br> Electronic Media $\qquad$ |
|  | 40-42 | MedA 434 | Mass Communication <br> Law and Regulation .3 |
| In addition complete on | to the IM core, students must e of the following emphases: |  | - $\overline{21}$ |
| Art |  |  |  |
| Art 210 | Drawing ............................ 3 |  |  |
| Art 317/318 | Computer Graphics II ........ 3 | JOURNALISM |  |
| Art 326 | Photography II .................. 3 | MedA 111 | Cultural and Historical Foundations ........................ 3 |
|  | 9 | MedA 112 | Media in Modern Society .. 3 |
|  |  | MedA 225 |  <br> White Photography $\qquad$ |
| Computer Science |  | MedA 240 | Writing for the |
| CS 150 | Introduction to Computer Science I $\qquad$ |  | Print Media ....................................................... |
| CS 315 | Human Computer Interface Design .................. 3 | MedA 363 | Publication Editing and Design $\qquad$ |
|  | $\overline{6}$ | MedA 434 | Mass Communication Law and Regulation .................... 3 |
| Video |  |  | 21 |
| MedA 250 | Elements of Production...... 3 |  |  |
| MedA 320 | Studio Production .............. 3 |  |  |
| MedA 330 | Field Production ............... 3 |  |  |

CS 120 The Information Era ........... 3
CS 205 Programming for $\begin{array}{ll}\text { Multimedia ......................... } 3\end{array}$
$\begin{array}{ll}\text { MedA } 260 & \text { Elements of } \\ & \text { Multimedia Design ............. } 3\end{array}$
$\begin{array}{ll}\text { MedA } 305 & \begin{array}{l}\text { Designing for } \\ \text { Electonic Media ................... } 3\end{array}\end{array}$
MedA 311 Broadcast Writing ............... 3
OR
Engw 207
OR 208 Creative Writing .................. 3
$\begin{array}{ll}\text { MedA } 350 & \begin{array}{l}\text { Integrated Media } \\ \text { Production ........................... } 3\end{array}\end{array}$
$\begin{array}{ll}\text { MedA } 360 & \text { Integrated Media } \\ & \text { Project Design ...................... } 3\end{array}$
$\begin{array}{ll}\text { MedA } 434 & \text { Mass Communication } \\ & \text { Law and Reg. ...................... } 3\end{array}$
MedA 495 Senior Project I ..................... 2
MedA 496 Senior Project II ................... 2
OR
MedA 475 Internship (In lieu of $\begin{aligned} & \text { senior project) ................ 4-6 }\end{aligned}$

In addition to the IM core, students must complete one of the following emphases:
Art
Art 210 Drawing ................................. 3
Art 317/318 Computer Graphics II ......... 3
Art 326 Photography II .................... 3

Computer Science
CS 150 Introduction to Computer
$\begin{array}{ll}\text { CS } 315 & \text { Human Computer } \\ & \text { Interface Design .................. } 3\end{array}$

## Marketing

BA 309 Marketing............................... 3
BA 333 Consumer Behavior ............ 3
BA 443 Special Topics in Marketing 3

## MEDIA ARTS MINORS

## Requirements

GENERAL MEDIA ARTS
MedA 112 Media in Modern Society .. 3
$\begin{array}{ll}\text { MedA } 225 & \text { Introduction to Black \& } \\ & \text { White Photography ........... } 3\end{array}$
MedA 240 Mass Media Writing ........... 3
MedA 250 Elements of Production...... 3
$\begin{array}{ll}\text { MedA } 260 & \text { Introduction to } \\ & \text { Integrated Media ................ } 3\end{array}$
MedA 311 Writing for $\begin{array}{ll}\text { Electronic Media ................. } 3\end{array}$
$\begin{array}{ll}\text { MedA } 434 & \text { Mass Communication } \\ & \text { Law and Regulation ........... } 3\end{array}$
21

## JOURNALISM

$\begin{array}{ll}\text { MedA } 225 & \text { Introduction to Black \& } \\ & \text { White Photography ............ } 3\end{array}$
$\begin{array}{ll}\text { MedA } 240 & \begin{array}{l}\text { Writing for the } \\ \\ \text { Print Media ......................... } 3\end{array}\end{array}$
MedA 340 Reporting ............................ 3
MedA $363 \begin{aligned} & \text { Publication Editing } \\ & \text { and Design .......................... } 3\end{aligned}$
MedA 434 Mass Communication Law and Regulation .................... 3


## COURSE DESCRIPTIONS

## Media Arts (MedA)

MedA 101 Fundamentals of Speaking This course includes study of communication theory and the preparation and delivery of speeches. Students are expected to give a number of relatively short speeches before the class. Emphasis is on the development of speaking skills before an audience. 3 hours. Mathies, Jones.

## MedA 105 The Art of Filmmaking

A comprehensive introduction to film production and basic analysis, uses Super 8 mm format to examine aesthetic properties of light, movement and time as they relate to the art of filmmaking. Basic camera operation and shooting techniques examined along with basic principles of editing. Prerequisite: Film production majors only. Taught at Northwest Film Center. 3 hours. NFC staff. Fee $\$ 490$.

## MedA 110 Introduction to Communication

An introduction to the study of human communication. Communication principles will be applied to interpersonal, small group, public, organizational and mass media contexts. 3 hours. Mathies, Jones.

## MedA 111 Cultural and Historical Foundations of Mass Communication

The historical and theoretical development of the American mass media. Emphasis placed on the integration of historical background, contemporary mass communication theory and modern mass communication institutions. 3 hours. Cassady. Fall (Not offered 2002-2003).

## MedA 112 Media in Modern Society

A study of the mass media in modern America and the world. Focuses on the economic, technological, legal and social aspects of the media. 3 hours. Cassady. Spring.

## MedA 120 Survey of Film

Introduces the study of film by examining its history. Film movements, national cinemas, the development of technology, the evolution of the industry, and major directors are areas that are explored. The course is international in scope, and regular screenings are included. 3 hours. Hibbard. Fall

## MedA 150 Pacific Index

Working for the student newspaper in editorial, reporting, advertising, design and other capacities. P/NP. 1 hour. May be repeated for credit. Cassady.

## MedA 151 Intercollegiate Debate

Participating in intercollegiate forensics as part of the Pacific University team. P/NP. 1 hour. May be repeated for credit. Mathies.

## MedA 152 Pacific Productions: Crewing

Working with Pacific University student video production organization doing video productions. P/NP. 1 hour. May be repeated for credit. Hibbard.

## MedA 200 Argumentation and Debate

 The study of classical and modern argumentation theory and its application to problem solving through reasoning, evidence, and persuasion. The course also covers the structure of collegiate debate as a model for modern debate theory and practice. 3 hours. Mathies. Fall.
## MedA 201 Interpersonal Communication

Examines the interpersonal dimension of communication. Principles, concepts, and theories of relationships will be analyzed, discussed and evaluated in their application to daily interaction. Emphasis on how interpersonal communication is structured and how it functions in transactions. 3 hours. Mathies, Jones.

## MedA 205 16mm Film Editing

Explores the relationship of image to image and image to sound, both in terms of aesthetics and hands on manipulation of a 16 mm flatbed editor and magnasync dubber. Editing outside class required. Taught at the Northwest Film Center. Prerequisite: Film Production majors only. 2 hours NFC Staff. Fee $\$ 560$.

## MedA 210 16mm Cinematography

First of a two class sequence in 16 mm film (the second is MedA 430, Sync Sound Production). Teaches the fundamentals of 16 mm pre-production, on camera loading and operations, lighting, composition, continuity, lens properties and film stocks. Taught at Northwest Film Center. Prerequisite: MedA 105. Film Production majors only. 3 hours. NFC staff. Fee $\$ 590$.

## MedA 225 Introduction to Black \& White Photography

A course designed for Communication majors that consists of basic camera handling techniques and black and white darkroom techniques and procedures. The course has a photojournalistic orientation and assignments are intended for students to photograph for the printed page. Students have an opportunity to have work selected for the University's student paper, the "Index". Students should have a 35 mm camera and be prepared to purchase a reasonable amount of film and paper for the course. Non-majors must have consent of the Instructor. 3 hours. Flory. Fall.

## MedA 240 Writing for the Print Media

An introduction to writing for the print media. Course focuses on the basics of writing for print publication in the form of news and feature stories. Major emphasis upon conciseness and adaptation to the writing situation and material. 3 hours. Cassady. Fall (Spring 2003).

## MedA 241 Introduction to Animation

This course will introduce students to the art of animation from a historical, theoretical, and technical standpoint. Students will be introduced to different formats and techniques of animation and will get to experiment with various animation techniques as a part of the coursework. 3 hours. Hibbard. Spring.

## MedA 250 Elements of Production

Study of the various elements which combine to create television and film products. Includes production planning, scriptwriting, camerawork, sound, editing, and directing. Some time spent in the studio for application of learned techniques. Prerequisite: MedA 111, 112. 3 hours. Hibbard. Fall.

## MedA 260 Elements of Multimedia Design

Introduces students to the fundamental tools and principles in the development of multimedia applications. Prerequisite: CS 120. 3 hours. Geraci. Fall.

## MedA 301 Special topics: Film Theory

An intensive study focusing on a singular application of film theory with an emphasis on contemporary cultural and critical theories. Topics vary each term offered. Prerequisite: MedA 120, 250 or consent of instructor. 3 hours. May be repeated for credit. Hibbard. Offered alternate years.

## MedA 302 Documentary

The history, philosophy and analysis of the documentary. Explores the documentary as personal essay, autobiography, journalism, political propaganda and social advocacy. Prerequisite: MedA 120 or permission of instructor. 3 hours. Hibbard. Offered alternating years.

## MedA 305 Designing for Electronic Media

Introduces students to the advanced tools and techniques associated with the development of interactive media image, text and sound resources. Prerequisite: Art 110, MedA 260. 3 hours. Geraci.

## MedA 307 Gender Communication

Examines the process of gender communication. Principles, concepts, and theories of gender relationships and communication styles will be analyzed, discussed and evaluated in their application to daily interaction. Prerequisite: Junior standing or instructor consent. 3 hours. Jones. Spring.

## MedA 311 Writing for Electronic Media

 Various forms of writing for radio and television. Includes extensive practice in preparing scripts for broadcast announcements, commercials, and narrative drama. Prerequisite: MedA 250 and Junior standing. 3 hours. Hibbard. Spring.
## MedA 312 Screenwriting

Explores the art and business of screenwriting, acquainting students with various markets and techniques necessary to produce professional quality dramas for film and television. Emphasis will be on character development, story construction, dialogue, conflict and resolution. Taught at Northwest Film Center. Prerequisite: Film Production majors only. 3 hours. NFC staff. Fee $\$ 385$.

## MedA 320 Studio Video

The study of facts and practices of techniques in studio production. Emphasis on writing, lighting and directing. Introduction to postproduction techniques. Prerequisite: MedA 250. 3 hours. Hibbard. Spring

## MedA 321 Sound Design

Develops a filmmaker's aesthetic appreciation of the sound element in film/video production. Participants will develop a historical understanding of sound's use in film, see and hear clips from selected works and familiarize themselves with equipment in sound design firsthand through hands-on exercises. Editing outside class is required. Taught at Northwest Film Center. Prerequisite: Film Production majors only; MedA 105, 205 and proficiency with Macintosh computers. 2 hours. NFC staff. Fee $\$ 525$.

## MedA 330 Field Video

The study and practice of Electronic Field Production with an emphasis on non-fiction production and non-linear editing. Prerequisite: MedA 250. 3 hours. Hibbard. Spring.

## MedA 340 Reporting

Development of news-gathering and reporting skills, and techniques for the mass media. Prerequisite: MedA 240. 3 hours. Cassady. Offered alternate years.

## MedA 350 Integrated Media Production

Explores the use of advanced multimedia tools in the development of a significant multimedia project. Students combine the various fundamental principles of design and human technology interface to create a single interactive multimedia application. Prerequisite MedA 360 or consent of instructor. 3 hours. Geraci.

## MedA 352 Pacific Productions: Production Coordination

Management/production experience with Pacific Productions. Requires Organization/management with Pacific Productions. Prerequisite: MedA 250 and 320 or 330 and instructor consent. P/NP 1-3 hours (Maximum 6 hours). May be repeated for credit. Hibbard.

## MedA 360 Integrated Media Project Design

Provides students the opportunity to apply their advanced knowledge of interactive media to issues currently affecting the industry. Students develop a complete proposal, including technical and design specifications, to bring an interactive media solution to areas such as academic and non-academic publications, advertising, dissemination of information and participation in the political process. Prerequisite: MedA 260 and consent of instructor. 3 hours. Geraci.

## MedA 363 Publication Editing and Design

Copy editing and print layout and design techniques with the emphasis on publication editing and design. 3 hours. Cassady. Offered alternate years.

## MedA 370 Advanced Reporting

Investigation of in-depth reporting techniques with specific attention paid to background and analysis and the production of multi-source, multi-part stories. Emphasis is in idea conception and development as well as information gathering and packaging. Prerequisite: MedA 240 and 340. 3 hours. Cassady. Offered alternate years.

## MedA 380 Directing Actors

Covers the process of acting and provides the tools to communicate effectively with artists who work on behalf of the director in front of the camera. Dramatic action, emotional throughline, sense memory, beats, physicalization, intention, obstacles, improvisation, tempos and mood imagery will be covered. Taught at Northwest film Center. Prerequisite: Film Production Major, MedA 105, MedA 312 or consent of instructor. 3 hours. NFC staff. Fee $\$ 350$.

## MedA 390 Fundraising

Focuses on fundraising and career development. Helps filmmakers attractively position their project, identify and address their strengths and weaknesses as fundraisers and draw upon appropriate fundraising tools. Teaches looking beyond current projects and developing long range career plans. Includes development of mission statement, marketing with integrity and effective video promotion clips. Taught at Northwest Film Center. Prerequisite: Film Production Major. Fee \$105.

## MedA 399 Independent Study

Individual study in Media Arts: The student meets with an advisor for reading and discussion. Prerequisite: Senior standing or consent of the instructor. 2-3 hours. Staff.

## MedA 401 Special topics: Film Topographies

In-depth look at various film movements, genres and directors. Will focus on the question of "what is style?" by examining a wide range of formal conventions, filmic genres, narrative movements and industrial production techniques. Topic varies each term offered. May be repeated for credit. Prerequisite: MedA 120, 250 or consent of instructor. 3 hours. Hibbard.

## MedA 410 Communication Topics

In-depth study of various topics in speech communication. Subject varies each term offered. Prerequisite: Junior standing. May be repeated for credit. 3 hours. Jones, Mathies.

## MedA 422 Media Criticism

In-depth analysis of the relationship of the mass media and the political, social, philosophical and moral aspects of modern society. Includes historical and contemporary aspects of the modern mass media. Prerequisite: Senior standing, MedA 111, 112 or consent of instructor. 3 hours. Staff. Spring. (Fall 2002) (G)

## MedA 425 Media Topics

In-depth study of specific areas in mass communication and mass media. May be repeated for credit. 3 hours. Staff. Offered intermittently. (G)

## MedA 430 Sync Sound Production

The production of a short sync sound narrative film in a small group setting. 16 mm sync sound recording, advanced lighting techniques, script supervision, budgeting, storyboarding, continuity cutting techniques, sound track construction and working with the film lab are covered. Taught at Northwest Film Center. Prerequisite: Film Production Major, MedA 205, MedA 210. 4 hours. NFC staff. Fee $\$ 850$.

## MedA 434 Mass Communication Law and Regulation

The study of mass communication law and regulation including First Amendment theory, libel, slander, privacy, free press and fair trial, obscenity, FCC regulation and copyright. Prerequisite: Senior standing, and MedA 111 or 112 or consent of instructor. 3 hours. Cassady. Fall. (Spring 2003)(G)

## MedA 440 Optical Printing

Hands-on seminar examines the capabilities of the Film Center's 16mm optical printer by covering loading of the camera and projection unit and programming of the sequencer as well as film stocks, data logging and cleaning procedures. Students will view sample works and shoot weekly exercises for critique the following session. Outside time is required for shooting and can be scheduled to fit a variety of schedules. Film/processing and equipment provided through Equipment/Lab Fee. Completion of the workshop qualifies participants to utilize the unit for personal and other noncommercial projects at subsidized rental rates as part of the Film Center's Equipment Access program. Taught at Northwest Film Center. Prerequisite: Film Production Major, MedA 205, MedA 210. 3 hours. NFC staff. Fee $\$ 260$.

## MedA 475 Internship Seminar

An intensive review of internship experiences with emphasis on the media work experience and the community in which the experience was gained. Prerequisite: Consent of instructor. Approved internship. 1-3 hours. P/NP. Cassady.

## MedA 495 Senior Project

The student creates a product of professional quality. 495 is offered in the Fall and is the planning and proposal stage. Prerequisite: Senior standing and consent of the instructor. 2 hours. Staff.

## MedA 496 Senior Project

Second half of the year-long senior project. Prerequisite: MedA 495. 2 hours. Staff.

## MUSIC

Tim Stephens, Chair, Associate Professor
Michael Burch-Pesses, Associate Professor
George Harshbarger, Professor
Scott Tuomi, Assistant Professor

## Adjunct Faculty

Lisa Actor, Instructor in Voice
Bob Allnutt, Instructor in Guitar
Steve Conrow, Instructor in Trumpet/Brass Methods
Karen Gifford, Instructor in Flute
Phil Hansen, Instructor in Cello
Kerstin Helgason, Instructor in Violin/Viola
Alan Juza, Instructor in Oboe
Steve Kravitz, Instructor in Woodwinds
Steve Lawrence, Instructor in Percussion
Nicole Lee, Instructor in Piano
Karen Mallory, Instructor in Voice
Janice Richardson, Instructor in Bassoon
Delbert Saman, Instructor in Organ
Jill Soltero, Instructor in Voice
Kelli Brown Stephens, Instructor in Piano
John Stowell, Instructor in Jazz Guitar
David Wilkins, Instructor in Trombone/Tuba
Santha Zaik, Instructor in Horn

The Department of Music, is accredited by the National Association of Schools of M usic. It is also accredited by the Oregon Teacher Standards and Practices Commission, and fulfills five major functions within the University:

1. to provide access to courses in music for all students of the University regardless of their previous involvement or experience.
2. to provide opportunities for active music-making in a variety of instrumental and vocal ensembles for all interested students, faculty, staff, and members of the community.
3. to prepare elementary and secondary teachers of music.
4. to provide applied music instruction in voice, wind, percussion, string and keyboard instruments; and to offer degrees with performance emphasis in voice and piano.
5. to prepare students for graduate study in music.

## INTRODUCTORY COURSES \& COURSES FOR GENERAL STUDENTS

The Music Department offers the following General Studies courses for students with little or no previous experience with music.
Note: All Music courses count toward satisfying the Arts requirement in the Academic Core:

Mus 101 History of Classical Music ... 3
Mus 102 History of Jazz and Rock ... 3
Mus 110 Music Notation ................... 3
Mus 131 Introduction to MIDI Lab ... 1
Mus 181 Class Voice ........................... 1
Mus 183 Class Piano I ....................... 1
Mus 184 Class Piano II ....................... 1
Mus 187 Class Guitar I ...................... 1
Mus 188 Class Guitar II ..................... 1
Mus $240 \quad$ Introduction to $\quad$ World Music ....................... 3
All performing ensembles ................. 0 or 1
Private instruction .......................... 0.5 or 1

## Ensembles

Open to all students.
See course descriptions.
Mus 150 Choral Union
Mus 151 Jazz Band
Mus 159 Chamber Ensembles
Mus 163 Chamber Singers
Mus 165 Wind Ensemble
Mus 167 Jazz Choir
Ensembles may be counted as upperdivision credits in the Junior and Senior years. With Humanities Division approval, ensemble credits may count towards satisfying the Humanities requirement in the Academic Core. Ensembles are activity courses. 3 credits may count as satisfying the Arts requirement in the Academic Core, 4 more credits may be taken toward the minimum total of 124 credits for graduation. Beyond that, except for music majors, they are considered excess credits.

## Music Department Mission Statement and Goals

The Music Department at Pacific University seeks to prepare students:

- for lifelong interest, participation, and enjoyment in music;
- to become informed consumers and intelligent listeners and evaluators of music and musical performances;
- to be functionally literate in the language of music-reading, writing, speaking, and listening;
- to pursue active music making both vocally and instrumentally;
- to create their own music;
- to discover relationships between music, the other arts, and disciplines other than the arts;
- to broaden and deepen their understanding of the music of our cultural heritage;
- to increase their appreciation of musical systems and traditions of cultures other than our own.
- to become more proficient in the music technologies appropriate to their areas of musical interest;
- for careers in elementary and secondary music education;
- to pursue rigorous and dedicated activity as performers specializing in voice or piano;
- for graduate study in music composition, music education, or performance.


## MUSIC PROGRAMS

## The Music Department offers:

- Bachelor of Arts in Music
- Bachelor of Arts in Music: Performance Emphasis (voice and piano)
- Bachelor of Arts in Music Education
- Minor in Music


## BACHELOR OF ARTS IN MUSIC

Music Theory: Mus 111, 111L,
112, 112L, 211, 211L, 212, 212L ................. 16
Music History: and three of Mus 321, 322, 323, 3249
Ensembles: Large ensemble appropriate to the student's instrument or voice (Mus 150, 163, 165) each semester in residence. ..... 8
Piano: Mus 185* and $186^{*}$; or pass the Piano Proficiency Test .....  2
Recital Attendance: Mus 100 (0-credit) seven semesters ..... 0
Electives in Music: ..... 9
Music Capstone: Mus 495 ..... 2
Total Credits in Music ..... 54

At the end of the second year of music study, the progress of each music major or minor will be assessed to evaluate the student's potential to successfully complete upperdivision music requirements. Music courses fulfilling requirements in the music major or music minor must be passed with a grade of "C-" or higher.
*Waived for students who pass the Piano Proficiency Test without enrolling in these courses.

## BACHELOR OF ARTS IN MUSIC: PERFORMANCE EMPHASIS

(for students whose primary instrument isvoice or piano)
Students choosing this degree option complete all of the requirements for the Bacheler of Arts in Music except electives in Music and Mus 495 Music Capstone. The following additional requirements must be satisfied.
Music History (one additional course of Mus 321, 322, 323, $324,326,427,428)$ .3
Pedagogy Mus 490 or 491, as appropriate ..... 2
Recitals Mus 394 and 494 ..... 3
Mus 351 Diction for Singers (voice majors only) ..... 1
Conducting Mus 282 .....  1
Total additional credits ..... 9 (10)

## BACHELOR OF ARTS IN MUSIC EDUCATION

Students choosing this degree option
complete all of the requirements for
the Bacheler of Arts in Music except
Electives in Music. The following additional
requirements must be satisfied.

Orchestration: Mus 310 ..... 3
Non-western Music: Mus 240 ..... 3
Techniques and Methods+: The appropriate four of:

MUS 181, 233, 234, 235, 236 ..... 4
Music Education: Mus 301; and 302 or 303, as appriopriate .....  6
Conducting . Mus 282; and 482 or 483, as appropriate ..... 3
Music Capstone: Mus 495 ..... 2
Total additional credits ..... 21
+A Music education major is to take the methods courses not representing the family of his/her major instrument or voice.
A student is excused from one credit of the ensemble requirement if enrolled in Educ 475 Student Teaching.

Note: This curriculum does not include teaching licensure/certification. Students majoring in Music Education and seeking licensure to teach in public schools may elect one of two paths: 1) They may complete licensure courses through the School of Education concurrently with or following undergraduate study (34 credits), typically requiring an additional year beyond the baccalaureate degree, or degree and licensure in five years; or 2) pursue a Master in Arts in Teaching degree (twelve-month program) which includes licensure requirements. Licensure requirements can be found in the Pacific University College of Arts and Sciences Catalog under Education/Required Professional Courses for Early Childhood \& Elementary School Authorizations or Middle School and High School Authorizations, as appropriate; and Master of Arts in Teaching requirements can be found in the School of Education section of the Pacific University Graduate and Professions Catalog.

## MINOR IN MUSIC

## Requirements

Music Theory:
Mus 111, 111L, 112, 112L ............................ 8
Music History: any two
of Mus 321, 322, 323, 324 6
Piano: Mus 185* and 186*, and pass Piano Proficiency Test ..... 2
Recital Attendance: Mus 100 (0-credit) four semesters ..... 0
Applied Music on student's primary instrument or voice: four semesters of 0.5 cr . each ..... 2
Ensembles (large ensemble appropriate to instrument/ voice, Mus 150, 163, 165) ..... 4
*Waived for students who pass the PianoProficiency Test without enrolling.
Total Credits in Music ..... 22

+ Selected in consultation withfaculty advisor.
* May be waived by Departmental proficiency examination.


## Other Requirements

Students of piano at the 300-level or above are required to provide designated Departmental accompanying, which substitutes for major ensemble participation. Pianists accompanying a Departmental ensemble are to enroll for that ensemble. Those engaged in other Departmental accompanying are to enroll in Mus 120 Accompanying.
Transfer students and students in study abroad programs who major or minor in music at Pacific University must complete Mus 100 Recital Attendance and enroll in the major ensemble appropriate for the student's instrument or voice each semester in residence or until these requirements are met. Applied Music requirements are met only by Departmental examination.

## COURSE DESCRIPTIONS Music (Mus)

## Mus 100 Recital Attendance

All music majors must enroll in recital attendance for seven semesters and attend at least seven performances per term. All music minors must enroll in recital attendance for four semesters and attend at least five performances per term. Students enrolled in Mus 111, 112, 211, or 212 (except non-music majors/minors) must also register for Mus 100. Prerequisite: Must be music major or minor. 0 hours. Harshbarger.

## Mus 101 History of Classical Music

This course pursues the development of listening skills, principally with respect to the traditions of Western Classical Music. Emphasis is placed on the development of an aural sense of historical, stylistic, and idiomatic contexts. Previous musical knowledge or experience is neither required nor assumed. 3 hours. Staff. Offered fall semester.

## Mus 102 History of Jazz and Rock

Surveys the impact of jazz and rock music from both the social/historical and the musical points of view. Emphasis is placed on historical context and development of aural skills. The time frame will be 1900 to the present. 3 hours. BurchPesses. Offered Winter III.

## Mus 110 Music Notation and Songwriting

Introduction to the expressive elements of music and musical notation. Topics include intervals, scales, keys, melody, rhythm, harmony, texture, and form. Recommended as preparation for the music theory sequence, and for aspiring singersongwriters. Projects will include students' original compositions. No previous musical background necessary. 3 hours. Harshbarger.

## Mus 111 Music Theory I

Introductory studies in harmony and counterpoint. Emphasis placed on scales, intervals, triads, nonharmonic tones and seventh chords. Projects will include students' original compositions. Prerequisite: placement exam or consent. Corequisite: concurrent enrollment in Mus 111L and Mus 100. 3 hours. Stephens. Offered fall semester.

## Mus 111L Music Theory Lab I

Connecting sound and notation through analysis, aural dictation and sight singing. For music majors. Corequisite: concurrent enrollment in Mus 111. 1 hour. Stephens. Offered fall semester.

## Mus 112 Music Theory II

A continuation of Mus 111. Emphasis is on the harmonic, melodic, rhythmic and basic formal procedures of the common practice period. Primary topics will be secondary dominants, modulation, Neapolitan and Augmented sixth chords, modulation and analysis. Projects will include students' original compositions. Prerequisite: Mus 111 or consent. Corequisite: concurrent enrollment in Mus 112L and Mus 100. 3 hours. Stephens. Offered spring semester.

## Mus 112L Music Theory Lab II

Connecting sound and notation through analysis, aural dictation and sight singing. Corequisite: concurrent enrollment in Mus 112. 1 hour. Stephens. Offered spring semester.

## Mus 131 Introduction to MIDI Lab

 Introduction to Musical Instrument Digital Interface (MIDI) fundamentals and its practical implications for music education and composition. Basic Macintosh computer skills required. Prerequisite: consent of instructor. 1 hour. Burch-Pesses. Offered both semesters.
## Mus 150 Choral Union

Rehearsals and performance of traditional choral literature for large, mixed choir. Open to all students, faculty, staff and members of the community. Fundamentals of vocal tone production and musicianship. Public performance required. No audition. 0 or 1 hour per semester. May be repeated. Harshbarger.

## Mus 151 Jazz Band

A jazz band open to all University students. The band regularly performs with regionally and nationally-known soloists. Repertoire ranges from early Jazz and Big Band to Jazz/Rock fusion. May be repeated. Prerequisite: audition. 0 or 1 hour. Burch-Pesses.

## Mus 159 Chamber Ensembles

Small ensembles of many different instrumentations and voices open to Pacific students, faculty, staff, and other interested members in the community. Works from all periods and of all styles are studied. It is the responsibility of the students to form an appropriate ensemble and arrange for the appropriate faculty member to provide coaching prior to enrolling in the course. Prerequisite: Music Department Chair consent. Mus 159-06, -07 and -08 require an audition. 0 or 1 hour. May be repeated. Staff.

| Mus 159-01 | Chamber Ensemble - <br> Brass |
| :---: | :--- |
| Mus 159-02 | Chamber Ensemble - <br> String |
| Mus 159-03 | Chamber Ensemble - <br> Woodwind |
| Mus 159-04 | Chamber Ensemble - <br> Percussion |
| Mus 159-05 | Chamber Ensemble - <br> Voice |
| Mus 159-06 | Collegium Musicum - <br> Vocal |
| Mus 159-07 | Collegium Musicum - <br> Instrumental |
| Mus 159-08 | Stage Singers' Workshop <br> Mus 159-09 |
| Combination (3 or more) |  |

## Mus 163 Chamber Singers

A select mixed ensemble that performs and entertains regularly both on campus and off campus. Open to all students. Rehearsal and performance of choral literature from the Renaissance to the present. Three to five major performances per year, plus participation in choral festivals and an annual tour. Prerequisite: audition. 0 or 1 hour per semester. May be repeated. Harshbarger.

## Mus 165 Wind Ensemble

A large instrumental ensemble open to University students, faculty, staff, and other interested members in the community. The band performs major concerts of standard wind ensemble literature each semester and for other various events. Prerequisite: high school level or better ability to play a wind or percussion instrument. 0 or 1 hour. May be repeated. Burch-Pesses.

## Mus 167 Jazz Choir

This ensemble is a performance outlet for singers, both majors and non-majors, who wish to explore jazz from a vocal perspective. Performances will be both on and off campus and participation in Northwest Vocal Jazz Festivals is also planned. Prerequisite: Audition. 0 or 1 hour. May be repeated. Burch-Pesses.

## Mus 171-2, 271-2, 371-2, 471-2 Applied Music: Private Lessons

Private instruction is available on all band and orchestral instruments, piano, organ, guitar, and voice for all University students, whether they are music majors or minors or not, for an additional fee. The fee is waived for music majors and minors up to the number of credit required for their course of study. The _71-_72 sequence of courses is proficiency-based using nationally accepted criteria for advancement through the sequence of levels. Exact course requirements will be indicated on course syllabi and determined by the instructor to best serve the student's individual needs and experience. Music majors and minors taking private instruction are required to participate in the appropriate large ensemble for their primary instrument; and individual daily practice is required. Lessons are letter graded. Applied Music jury exams are required of all Applied Music students at the end of each semester, except Mus 171. Music majors and minors enrolled in Applied Music courses 271 and higher are required to perform in a Student Performance forum (student recital) each semester. Full-hour weekly lessons, earning one credit hour per semester, are the norm for music majors and minors; but half-hour lessons, earning one-half credit hour, are available for a lower fee. Course credit for full-hour or half-hour lessons is based on twelve lessons per semester. See the Music Department Chair for course section assignment when enrolling for Applied Music. Prerequisites: none for 171; 271 and higher require recommendation of the faculty, based on progress demonstrated in the jury exam. 0.5 or 1.0 credit hours per semester.

## Mus 181 Class Voice

A course designed for non-music majors to improve their singing skills. Emphasis is placed on improving the vocal technique, breath support, and tone quality of each member of the class in a no-pressure, supportive group situation. 1 hour. Tuomi.

## Mus 182 Class Voice II

A continuation of Mus 181, this course explores vocal technique for those with some previous knowledge of singing who seek improvement as soloists and/or choral singers. Students study both classical and contemporary (musical theatre) literature and perform selections in a supportive group environment. Offered spring semester. Prerequisite: Music 181. 1 hour. Tuomi.

## Mus 183 Class Piano I

Class piano for non-music majors/minors with little or no basic music or piano skills; scales, arpeggios, chords, and reading skills necessary for the playing of piano for personal enjoyment. 1 hour. Lee.

## Mus 184 Class Piano II

A continuation of Mus 183. Prerequisite: Mus 183 or consent. 1 hour. Lee.

## Mus 185 Functional Piano I

Class piano for music majors/minors with little or no basic piano skills; scales, arpeggios, chords, and reading skills necessary for the playing of simple accompaniments in the public school or private studio. Prerequisite: placement exam or consent. 1 hour. Lee.

## Mus 186 Functional Piano II

A continuation of Mus 185. Prerequisite: Mus 185 or consent. 1 hour. Lee.

## Mus 187 Class Guitar I

An examination of various techniques and styles of guitar playing including chord formations, positions, tuning and tone quality. 1 hour. Staff.

## Mus 188 Class Guitar II

A continuation of Mus 187.1 hour. Staff.

## Mus 191 Beginning Jazz Improvisation I

Techniques and materials used in the performance of basic instrumental jazz styles such as the Blues and Standards. Studies will include jazz theory, keyboard harmony, solo transcription, and required listening. Prerequisite: Mus 112 or consent. 1 hour. Staff.

## Mus 192 Beginning Jazz Improvisation II

A continuation of Mus 191. Studies will expand to include alternative harmonic and rhythmic techniques and materials. Prerequisite: Mus 191 or consent. 1 hour. Staff.

## Mus 211 Music Theory III

A continuation of Mus 112. Emphasis is on the melodic, harmonic, rhythmic, and basic formal procedures of selected Medieval, Renaissance, Baroque, Classical and Romantic schools and styles. Projects will include students' original compositions. Prerequisite: Mus 112 or consent. Corequisite: concurrent enrollment in Mus 211L and Mus 100. 3 hours. Stephens. Offered fall semester.

## Mus 211L Music Theory Lab III

Connecting sound and notation through analysis, aural dictation and sight singing. Corequisite: concurrent enrollment in Mus 211. 1 hour. Stephens. Offered fall semester.

## Mus 212 Music Theory IV

A continuation of Mus 211. This course examines the basic harmonic, melodic, rhythmic, and formal procedures of late 19th and 20th century music;. Primary topics will be the extension of tonality, chromaticism, impressionism, quartal harmony, atonality, serialism, electronic media, and minimalism. Projects will include students' original compositions. Prerequisite: Mus 211. Corequisite: concurrent enrollment in Mus 212 L and Mus 100. 3 hours. Stephens. Offered spring semester.

## Mus 212L Music Theory Lab IV

Connecting sound and notation through analysis, aural dictation and sight singing. Corequisite: concurrent enrollment in Mus 212. Offered spring semester. 1 hour. Stephens.

## Mus 233 String Methods

Laboratory classes in playing and teaching the string instruments of the orchestra. Violin, viola, cello or bass are presented with members of the class playing the instrument. Particular emphasis is given to the techniques of strong class teaching. Offered S 2000. Prerequisite: Music Major or consent. 1 hour. Staff.

## Mus 234 Woodwind Methods

Laboratory classes in playing and teaching the woodwind instruments. Flute, oboe, clarinet, saxophone, and bassoon are presented with emphasis on class teaching procedures, positions, and tone production, the care and minor repairs of the instruments. Prerequisite: Music Major or consent. Offered alternate years. 1 hour. Staff.

## Mus 235 Brass Methods

Laboratory classes in playing and teaching trumpet, trombone, baritone, French horn and tuba. Emphasis is placed on class teaching procedures, positions, tone production, and embouchure. Offered alternate years. Prerequisite: Music Major or consent. 1 hour. Staff.

## Mus 236 Percussion Methods

Laboratory classes in playing and techniques for teaching, tuning, and care of idiophones, and membranophones, Offered alternate years. Prerequisite: Music Major or consent. 1 hour. Staff.

## Mus 240 Introduction to World Music

Through lecture, discussion, structured listening and participation, students will explore various music cultures throughout the world including those in Japan, Eastern Europe, Latin America, Africa, Indonesia and India. In addition, the course includes an examination of Afro-American and Native American music as well as other less commonly known North American forms and genres. Meets cross-cultural requirements 3 hours. Tuomi.

## Mus 280 Accompanying

A basic study of accompanying technique for both instrumental and vocal literature. The course addresses problems of balance, ensemble, texture, and interpretive style. Prerequisite: piano major or minor and consent. May be repeated for credit. 1 hour. Lee.

## Mus 282 Basics of Conducting

Seminar class covering beginning level music conducting gestures, movement and basic analysis of scores for both vocal and instrumental students. Students will conduct other musicians with graded verbal and video feedback from the instructor. Prerequisite: Mus 112. This class is a prerequisite for Mus 482 and/or Mus 483. 1 hour. Harshbarger.

## Mus 285 Functional Piano III

A Continuation of Mus 124. Prerequisite: Mus 124 or consent. 1 hour. Lee.

## Mus 286 Functional Piano IV

A continuation of Mus 223. Prerequisite: Mus 223 or consent. 1 hour. Lee.

## Mus $300 \quad$ Music for <br> Classroom Teachers

Fundamental principles, techniques, and procedures for teaching music in the elementary school. Examination of contemporary literature and materials. Introduction to musical notation and first experiences in piano and recorder. Rote songs, reading-readiness, rhythm training, creative music, and listening lessons. Observation. Recommended by the School of Education for elementary teachers. 2 hours. Harshbarger.

## Mus 301 Music in the

## Elementary School

An examination of techniques and materials for teaching classroom vocal and instrumental music in the elementary school for the prospective music specialist. Emphasis on lesson planning. Orff, Kodaly methods; the rote song, reading-readiness, the reading song, the rhythm program, the listening lesson, and creative music. Observation of music-making in the elementary school classroom and directed teaching. Prerequisite: Mus 212 or consent. 3 hours. Harshbarger. Offered alternate years.

## Mus 302 Music in the Secondary School (Choral)

Selection and presentation of vocal music for the high school; conducting skills; examination of typical problems encountered in high school music ensembles; methods and materials for classroom as well as individual teaching; introduction to basic vocal techniques; curriculum development, and organizational practices. Observation. Prerequisite: Mus 212 or consent. 3 hours. Harshbarger. Offered alternate years.

## Mus 303 Music in the Secondary School (Instrumental)

Selection and presentation of instrumental music for the high school; conducting skills; examination of typical problems encountered in high school music ensembles; methods and materials for classroom as well as individual teaching; introduction to basic instrumental techniques; curriculum development, and organizational practices. Observation. Prerequisite: Mus 212 or consent. 3 hours. Burch-Pesses. Offered alternate years.

## Mus 310 Orchestration and Arranging

Techniques of scoring and transcribing for various combinations of orchestral and band instruments. Scoring and arranging for ensembles of incomplete instrumentation. Exploration of timbral combinations. Introduction to computer applications in this field. Offered alternate years. Prerequisite: Mus 212 or consent. 3 hours. Stephens.

## Mus 311 Counterpoint

Intensive studies in contrapuntal techniques and styles, species and modal, as they developed in music history. Prerequisite: Mus 212 or consent. Offered each semester on an arrangement basis. 3 hours. Stephens.

## Mus 312 Analysis

The study of structure and styles through analysis of characteristic scores of the Baroque, Classical, Romantic, and Modern periods. A study of approaches to analysis including Schenker, Reti, Cooper, Meyer and others. Prerequisite: Mus 311 or consent. Offered each semester on an arrangement basis. 3 hours. Stephens.

## Mus 321 Music History:

Antiquity to 1585
A study of music written during the Medieval, Renaissance, and early Baroque periods. Attention will also be given to the relationships among music, the visual arts, and historical events. Prerequisite: Mus 111 or consent. 3 hours. Tuomi. Offered alternate years.

Mus 322 Music History: 1585-1809
A study of works from the early Baroque to the late Classic. The approach will be similar to that described for Mus 321 above. Prerequisite: Mus 111 or consent. 3 hours. Tuomi.

## Mus 323 Music History: 1809-1918

A study of works from the late Classic, through the Romantic to the early 20th century. The approach will be similar to that described for Mus 321 above. Prerequisite: Mus 111 or consent. 3 hours. Stephens. Offered alternate years.

## Mus 324 Music History: <br> The Twentieth Century

Surveys the major trends in twentieth-century compositional thought and practice: chromatic tonality, atonality, serialism, neo-classicism, nationalism, avant-gardism, etc. Emphasis will be on various composers, approaches to the problems of tonal language. Prerequisite: Mus 111 or consent. 3 hours. Stephens. Offered alternate years.

## Mus 326 Song Literature

Surveys the development of the art song, beginning with the troubadour and trouvere songs of the 13th century and extending through contemporary techniques in the genre. Score study and in-class performance required. An elective course for vocal performance majors/minors. Prerequisite: Mus 272, and Mus 323, 324 or consent. 3 hours. Tuomi. Offered alternate years.

## Mus 351 Diction for Singers

An introduction to International Phonetic Alphabet and its application to the pronunciation of English, Italian, German, French, and Ecclesiastical Latin. A required course for vocal performance majors. Prerequisite: Mus 171 and 172 or consent. 1 hour. Tuomi. Offered alternate years.

## Mus 391 Piano Literature

A chronological study of standard and lesser known works for solo piano, from pre-Bach to the present. Consideration of editions and library techniques included along with regular short performances by class members. Prerequisite: piano major or minor and consent. 2 hours. Lee.

## Mus 394 Junior Recital

Candidates for the degree Bachelor of Music in Performance Studies are required to research and perform one-half of a recital (one-half hour minimum). This course is also open to other majors and to qualified non-majors enrolled in Performance Studies. 1 hour per semester. Staff.

## Mus 411 Composition

Techniques of composition and arranging for various combinations of instruments and voices. Prerequisite: Mus 212 or consent. May be repeated for no credit. 3 hours. Stephens.

## Mus 427 History of the Cantata and Oratorio

Examines the primary cantata and oratorio repertoire through in-depth analysis, listening, and concert attendance. Both sacred and secular works will be examined, beginning with examples from the 16th century and extending through 20th century works in the idiom. An elective class for music majors/minors. Offered by arrangement. Prerequisite: Mus 112, 323, 324, or consent. 3 hours. Tuomi.

## Mus 428 History of Opera

A comprehensive study tracing the development of opera and music drama through analysis, listening, and performance attendance. The course will concentrate on works beginning with Claudio Monteverdi and continue through modern innovations in the genre. An elective class for music majors/minors. Offered by arrangement. Prerequisite: Mus 112, 323, 324, or consent. 3 hours. Tuomi.

## Mus 482 Instrumental Conducting

A detailed study of conducting techniques and instrumental rehearsal procedures. The approach will be through music analysis, and will include beat patterns, body movements, and baton technique. Students will work with instrumental ensembles. Prerequisite: Mus 212, Mus 282 or consent. 2 hours. Burch-Pesses.

## Mus 483 Choral Conducting

A study of conducting techniques and choral rehearsal procedures to include the teaching of vocal production, breathing, diction, basic musicianship, and performance. Choral literature for ensembles of various age groups and experience will also be examined. Students will work with choral ensembles. Prerequisite: Mus 212, Mus 282 or consent. Concurrent enrollment in a Pacific University choral ensemble is required. 2 hours. Harshbarger.

## Mus 490 Introduction to Vocal Pedagogy

Laboratory classes in singing and teaching of voice. Emphasis is placed on class teaching procedures, tone production, and healthy singing techniques. Prerequisite: consent of instructor. Offered alternate years. 2 hours. Tuomi.

## Mus 491 Piano Pedagogy

Provides pianists with the skills to teach reading, techniques, and basic musical expression to beginning, intermediate, or advanced piano students. Prerequisite: piano major or minor. 2 hours. Lee.

## Mus 494 Senior Recital

Candidates for the degree Bachelor of Music: Performance Emphasis are required to research and perform a full-length public recital of music (one hour minimum) from various periods during their senior year. Open to other students enrolled in Applied Music only with approval of the Music Department. 2 hours. Staff.

## Mus 495 Music Capstone

The culminating event in undergraduate music study, Music Capstone is typically a half recital, meeting requirements similar to those of Mus 394. In consultation with the Music faculty, other formats such as lecture-recital, demonstrations, composition, or written thesis may be acceptable. Prerequisites: Senior standing and approval of the Music faculty. Corequisite: Concurrent enrollment in Mus 471 or 472. 2 hours. Staff.

## PRE-OCCUPATIONAL THERAPY

The school of Occupational Therapy offers a 29 -month entry-level master's degree program. The curriculum consists of academic and laboratory experiences integrated with both part-time and fulltime professional field work. Entrance to the program is in the fall semester only.

The application deadline is usually December 1. Students who will have completed the occupational therapy prerequisite course requirements by the date of enrollment in the program are eligible to apply for admission. Students who enter without a bachelors degree will receive a Bachelor of Science degree in Human Occupation following completion of their first year in the graduate curriculum.

Students with an interest in occupational therapy should obtain a current brochure from the Office of Admission for Professional Programs. The brochure is the most current document outlining requirements and prerequisites. Students with questions regarding admission to the School are encouraged to talk with the Office of Admissions for Professional Programs (Ext. 2900).

Pre-Occupational Therapy is not an undergraduate major, so students interested in becoming occupational therapists are free to choose any major, as long as they also complete the prerequisite courses listed below. Students who elect to major in a science will need to take more math and science courses in the first semesters. The faculty in the School of Occupational Therapy requires the following prerequisite courses in order to ensure success in the professional program.

Prior to entrance, applicants must have:

- Acquired a bachelors degree and all specified School of Occupational Therapy prerequisite coursework; OR
- Completed a minimum of three academic years of college coursework (90 semester hours) including a minimum of four (4) upper division courses, the specified School of Occupational Therapy prerequisites coursework, and Pacific University bachelor core requirements.


## Requirements

Natural Sciences
15 hours
Bio 202, General Biology I
Bio 224, Human Anatomy with Lab
Bio 240, Human Physiology with Lab
Physics 110/111 is strongly recommended.
Social Sciences 12 hours
Must include courses from minimally two (2) of the following areas: psychology, sociology, anthropology, politics, government, business and economics. In these areas, include a life-span development course, and an abnormal psychology course.

## Social Science courses must include:

- courses in human growth and development, preferably across the life span (Psy 180 and / or Psy 311);
- courses which promote an understanding of both normal and abnormal adaptive development at both the individual and group level (Psy 150 and / or Psy 160 and / or Psy 308 and/or Psy 309 and / or Psy 311)
Writing

3 hours

Engw 201, Expository Writing
OR
Engw 301, Advanced Expository Writing Applied Arts 6 hours Various hands-on courses such as design, ceramics, dance, photography, or music.

## Communication

(debate or public speaking) ......... 2 hours
Meda 201 or Meda 101, or IS 201
Research Design........................... 2 hours
Psy 348 or Soc 300 or Anth 3019
A research methodology course is currently required. Statistics is recommended (and will be accepted as fulfilling the research requirement until (but not after) fall 2004).

## Humanities

6 hours

## Must include courses from

two (2) of the following areas:
literature, religion, history, philosophy, ethics, and history or appreciation of art, music, or theater.

## Cross-Cultural Studies

 2 hoursCourses on the cultures of Asia, Africa, Latin America, or aspects of the American culture that draw upon these areas or the cultures of the indigenous peoples of North America.
Physical Fitness (may be taken
"pass/no pass")
2 hours
Medical Terminology ... Credit/No Credit
(Obtainable through School of O.T./
Independent Study)
First Aid - A course and certification in First Aid including CPR must be current at time of entrance. This need not be for credit.

## Typical first year for Pre-OT students

## Fall

HUM 100 First-Year Sem
Language core
Soc 101 or 102
Meda course

## Winter

Humanities

## Spring

Biol 202 Gen Biol I
Engw 201
Art
Hper 150

## Typical second year for Pre-OT students

## Fall

Biol 224
Human Anatomy and lab

## Art

Math 207
Psych
Winter
Humanities

## Spring

Biol 240 Human Physiology and lab
Phy 110/111 Physics of Everyday Phenomena and lab
Social Sciences
Cross Cultural course

## PRE-OPTOMETRY AND VISUAL SCIENCE

Admission to the College of Optometry, for qualified students, usually occurs after completion of the bachelor's degree. Occasionally, some particularly able students are admissible after three years of undergraduate studies. Those students admitted to the College of Optometry, and only those students, may receive a Bachelor of Science degree in Visual Science. The Visual Science degree is awarded after 90 semester hours of undergraduate study and completion of the first two years of study in the College of Optometry. Please address specific questions concerning Optometry admission to Graduate Admissions.

## Optometry Prerequisite:

Biol 202 (Gen Biol I) and
Biol 204 (Gen Biol II) and
Biol 304 (Gen Biol III)
as prerequisites for
later Bio courses ................. 12 hrs required
(plus 12 additional hours because of prerequisites)
Biol 224 (Human Anatomy with lab)
Biol 240 (Human Physiology with lab)
Biol 308 (Microbiology)
Chem 220; 230; and a
complete Organic sequence, either 240 OR 310 and 320 .12 hours
(or 16 hours with 2 semester Organic sequence)
Biochemistry (Chem 380) is strongly
recommended, but is not required
Mathematics (Math 125 or 226) ..... 4 hours
Statistics (Math 207 suggested)...... 3 hours
Phy 202 and 204
OR
Phy 232 and 242 .................................. 8 hours
Psy 150 ............................................. 3 hours
Engw 201 (Expository Writing) plus two more English 200-level or above (writing or literature) ...... 9 hours (6 hours must be writing)

## VISUAL SCIENCE DEGREE (IN COLLEGE OF OPTOMETRY)

Humanities: 12 hours from two disciplines, including Art, English, History, Humanities, Languages, Music, Philosophy, Religion, Speech, Theater, and First-year Seminar) ................ 12 hours

Social Sciences: 12 hours from two
disciplines including Anthropology,
Business \& Economics, Geography,
History \& Political Science,
Psychology, Sociology, but not
First Year Seminar ........................ 12 hours
First two years of study in the College of Optometry.
Pre-Optometry students are advised to complete
the Arts and Sciences core requirements.
It is wise to begin immediately in Mathematics. In addition, strong students take General Chemistry in their freshman year. Biology, Chemistry, and Mathematics together are a heavy freshman science and math schedule, to be taken with care. Students interested in this schedule for the spring semester should discuss it first with their advisors.

## SAM PLE of 4-Year <br> Pre-Optometry Curriculum

## Freshman

Fall
Math 125 ..................................................... 4
First Year Seminar ...................................... 4
Chem 220 ................................................... 4
Elective ....................................................... 3
Winter
Elective ..... 3
Spring
Biol 202 ..... 4
Math 226 ..... 4
Chem 230 ..... 4
Elective ..... 3

## Sophomore <br> Fall

Biol 204 ....................................................... 4
Elective ....................................................... 3
Engw 201 .................................................... 3
Foreign Language ...................................... 3
Psych 150 .................................................... 3

16
Winter
Elective ....................................................... 3
3
Spring
Biol 304 ....................................................... 4
Elective ....................................................... 3
Engw 201 .................................................... 3
Foreign Language ...................................... 3
Psych 150 .................................................... 3

16

Junior
Fall
Chem 240 (Organic) ................................... 4
Biol 224 (Anatomy) .................................... 4
Electives ..................................................... 6
Winter
Elective ..... 3
Spring
Biol 240 (Physiology) ..... 4
Biol 308 (Microbiology) ..... 4
Electives ..... 6
Senior
Fall
Phy 202 OR Phy 232 ..... 4
Electives ..... 12
16
Spring
Chem 380 (optional) ..... 3
Phy 140/203 OR Physics 242 ..... 4
Electives ..... 9
16
*Note:
Biol 202 is a prerequisite for Biol 204
Biol 204 is a prerequisite for Biol 304
Biol 304 is a prerequisite for Biol 308
Math 122 is a prerequisite for Math 207 and Chem 220
Math 125 is a prerequisite for Chem 230 and Phy 202
Math 226 is a co-requisite for Phy 232
SAM PLE of 3-Year
Pre-Optometry Curriculum
Freshman
Fall
Arts/Soc Science .....  3
Math 125 ..... 4
First Year Seminar ..... 4
Chem 220 ..... 415
Winter15
Elective ..... 3
Elective
Spring
Biol 202 ..... 4
Math 226 ..... 4
Chem 230 ..... 4
Electives: Arts/Soc. Sci./Humanities ..... 3

## Sophomore

## Fall

Biol 204 ..... 4
Elective .....  3
Engw 201 ..... 3
Foreign Language .....  3Winter
Elective ..... 33
Spring
Biol 304 ..... 4
Math 207 (Statistics) ..... 3
Foreign Lang .....  3
Engw 301 ..... 316
Junior
Fall
Phy 202 OR Phy 232 ..... 4
Biol 224 (Human Anatomy) ..... 4
Chem 240 (Organic) ..... 4
Elective ..... 3$\overline{14}$
Winter
Elective ..... 3
Spring
Phy 204 OR Phy 242 ..... 4
Biol 240 (Human Physiology) ..... 4
Biol 308 (Microbiology) ..... 4
Electives ..... 3
**Note:
Biol 202 is a prerequisite for Biol 204
Biol 204 is a prerequisite for Biol 304
Biol 304 is a prerequisite for Biol 308
Math 122 is a prerequisite for Math 207 and Chem 220

Math 125 is a prerequisite for Chem 230 and Phy 202
Math 226 is a co-requisite for Phy 232

# PEACE AND CONFLICT STUDIES 

David Boersema, Philosophy, Chair<br>Jeffrey Barlow, History<br>Vern Bates, Sociology<br>Lorelle Browning, English<br>Alyson Burns-Glover, Psychology<br>Ellen Hastay, Director of Pacific Humanitarian Center<br>Michael R. Steele, English, Director of the Holocaust Center<br>Byron D. Steiger, Sociology

Robert Van Dyk, Politics and Government
The Peace and Conflict Studies (PACS) program and curriculum evolved from student and faculty interest and concern, and has drawn wide attention. Students may elect a minor in Peace and Conflict Studies. Courses are drawn from faculty in six departments. They investigate the causes and manifestations of violence in self, in society, and in the world of nations, and explore alternatives to violent resolution of conflict. Students are encouraged to develop a closely reasoned philosophical position on peace and conflict that can have lifelong application.

## MINOR IN <br> PEACE AND CONFLICT STUDIES

PACS 101 and 105 ..... 4-6
Two courses chose fromPACS 208, 211, 213, 214, 215,220, 221, 222, 2306
Three courses chosen from PolS 340*, PACS 305, 313, 325, 411, 430 and 450 ..... 9-10

## COURSE DESCRIPTIONS

## Peace and Conflict Studies (PACS)

PACS 101 Introduction to Peace and Conflict Studies

An introduction to concepts, issues, and approaches relating peace and conflict studies, including forms and causes of peace and conflict, contexts of conflict and violence, and proposed solutions for reducing violence and promoting peace. 3 hours. Steele, Boersema.

## PACS 105 Peace and Conflict Studies: Field Experience

A course designed to introduce the student to service-learning, provided in a field site drawn from the Humanitarian Center's database and the consequent learning the student will experience with regard to building community, applying one's academic and own personal experience in the course of providing service. Graded P/NP. 1-3 hours. May be repeated once for credit. Hastay.

## PACS 208 Addictions and Behavior

 This course takes a transhistorical, interdisciplinary approach to the question of alcohol and substance abuse and the social costs of addiction and use. The question of consciousness and why we choose to alter it will be addressed through discussions of the physiology of addiction; the sociocultural risk factors and cultural representations of drug use. In addition, this course will include a community-activity component in which students will design community interventions and educational activities in conjunction with the student services program. 4 hours. Burns-Glover and Browning. Meets social science core requirement. (Same as Psy 208.)
## PACS 211 Philosophical and

Theological Bases of Peace
From the philosophical and theological perspective, what is peace and how is it to be defined? What are the conditions for its achievement? Do human nature and the structure of the universe promote or preclude its realization in history? What is the wisdom of human experience and the teaching of the great philosophers and religious leaders on these questions? 3 hours. Steele. Meets humanities core requirements.

## PACS 213 Psychology of Altruism and Aggression

Historical and modern review of the human and non-human primate behaviors related to altruism, empathy, violence, competition and aggression from a social, biological, interspecies and crosscultural perspective. 3 hours. Burns-Glover. Meets social science core requirements. (Same as Psy 213.)

## PACS 214 Vietnam and the U.S.

This is a survey of the origins, development and results of the American war with Vietnam. This course, however, will be taught more within the context of Vietnamese history and culture than within that of American history and culture. Consequently, more emphasis will be given to the roots of the war in Vietnam than to its origins in U.S. foreign policy. There will be an opportunity in this course for students to learn how to prepare

## "Pages" for the World Wide Web

Those who are interested should also enroll for one hour of credit in one of the two sections of History 255, "History Web Lab". Although concurrent enrollment in 255 is voluntary. All students are strongly urged to enroll as the lab will not only teach web page production, but will also enhance student understanding of the materials covered in the class itself. 3 hours. Barlow.

## PACS 215 Conflict Resolution

Theories, strategies, and skills in resolving conflicts are analyzed and applied. Emphasis is placed on practical application of learned skills. through conflict simulations. 3 hours. Steiger.

## PACS 220 The Middle East

An introduction to the places, people and politics of the Middle East, including such concerns as the influence and importance of religion, the revival of Islam and Islamic fundamentalism, the impact and consequences of Western colonialism, the dream and possibility of panarabism, the Arab-Israeli conflict, and future relations with the West. 3 hours. Boersema. Meets cross-cultural core requirement.

## PACS 221 Community Psychology

The study of how psychology can be applied to social services such as community mental health centers to effect social change. Emphasis is on planning, prevention, early intervention, research and evaluation as well as how to strengthen existing social support networks and create new ones. Empowerment and primary prevention will be the focus of attention. Prerequisite: Psy 150 or Soc 101 or 102. 3 hours. Schultz, Gallahan. Meets social science core requirement. (Same as Psy 220.)

PACS 222 The Civil Rights Movement This course examines the causes, history, and tactics of the struggle to guarantee AftricanAmericans equal treatment under the law in the United States. The primary focus of the course material is on the political movement for equality in the Southern United States from 1954-1968. 3 hours. Van Dyk. Meets social science core requirement. (Same as POLS 222.)

## PACS 230 Navajo Service Learning

This course permits selected students to engage in a cross-cultural immersion service-learning experience in the Navajo nation during the Winter Three term. 3 hours. Hastay. Meets cross-culture core requirement.

## PACS 305 Advanced Service Learning

This seminar seeks to build on the mature work and insights of a variety of student placement sites, growing directly from their major course work and a well-considered personal inventory. The seminar is integrative of a wide variety of one's educational experiences at Pacific. Students will apply their academic and personal skills directly in a service-learning site placement, seeking to contribute both to the site and the people there as well as to augment their grasp of the applied knowledge from the chosen major. Prerequisite: PACS 105. 2 hours. May be repeated once for credit. Hastay.

## PACS 313 The Sociology of Violence

This course examines the social and structural causes, correlates, and consequences of violence. Topics included are social and political violence, subcultural violence, criminal violence, family violence, the media and violence, sports and violence, and racial violence. Prerequisite: PACS 101 or Soc 101. 3 hours. Bates. Meets social science core requirements.

PACS 325 The Vietnam War Era
This course explores the origins, events and consequences of American involvement in Indochina from historical, political, philosophical and personal perspectives. 3 hours. Browning. Meets humanities core requirements. Meets crosscultural requirement.

## PACS 411 Literature About War

A seminar on fiction and non-fiction writing about war, considering both text and the reality with which the author comes to grips. Readings may include works such as: The Great War, Meditations in Green, All Quiet on the Western Front, Testament of Youth, Johnny Got His Gun, Harp of Burma. 3 hours. Steele. Meets humanities core requirements.

## PACS 430 Human Rights

This course offers an in-depth investigation of conceptual and political issues related to rights and human rights, including such issues as the source and extent of rights, the nature of rights-bearers, the justification of rights claims, the legitimacy and means of implementing universal human rights and critiques and evaluations of the social role of rights. 4 hours. Boersema. Prerequisite: PACS 101 and Junior standing. Meets humanities core requirements.

## PACS 450 Issues in Peace \& Conflict Studies

A course wherein students examine important issues and ideas relative to peace and conflict studies, especially for the advanced student completing a minor in PACS. Prerequisite: Permission of instructor. 3 hours. Staff.
*Please see Social Sciences Division for PolS 340.

## PHILOSOPHY

David B. Boersema, Chair,<br>Professor of Philosophy, Douglas C. Strain<br>Chair of Natural Philosophy

David DeMoss, Associate Professor of Philosophy

Marc Marenco, Associate Professor of Philosophy

The Department of Philosophy seeks to acquaint students with various philosophical traditions, to present the chief philosophic problems and types of philosophy, and to help students cultivate the intellectual, civic, and moral virtues of the discipline of philosophy as well as the art and skill of philosophical analysis.

The department seeks to serve those students who intend to pursue graduate studies, those pursuing interdisciplinary career programs, and those who simply desire to understand human reflective traditions in order to enlarge their own horizon of awareness.

M ajors are educated in the liberal arts tradition and are carefully counseled to take courses in all areas of the College. Majors in the bioethics emphasis are educated in the liberal arts tradition, with a particular focus on the interface between philosophy and the health professions.

100- and 200-level courses are open to all students. 300 -level courses are open to upper-division students, though prior lower-division coursework is recommended. 400 -level courses generally require instructor approval. Courses in a foreign language are recommended.

## Departmental Goals

As a department, our goal is to educate our students with respect to the history, interpretive frameworks, and analytical techniques of the discipline of philosophy; given this goal, graduating majors and minors should be able to:
a. exhibit a general understanding of the history and development of philosophy, and a specific understanding of some portion of that history,
b. describe and critique several of the most important historical and contemporary interpretive frameworks used in the discipline of philosophy (for example, Plato's Theory of Forms, the deontological approach to ethics, and the existentialist analysis of the human condition),
c. apply the analytical techniques of the discipline of philosophy (for example, by presenting orally and in writing succinct analyses of philosophical texts, and coherently structured arguments in defense of their own philosophical claims).
In addition, the department strives to help students cultivate the intellectual, civic, and moral virtues of the discipline of philosophy (for example, intellectual integrity, objectivity, resilience in the face of obstacles and daunting problems, a commitment to consistency, a knack for seeing and articulating what issues are at stake, the courage to cross-examine opinions that one holds dear, respect for interlocutors and colleagues, a felt obligation to contribute to one's community, etc.).
We pride ourselves on preparing students who intend to pursue graduate studies and / or interdisciplinary career programs; graduating majors and minors should not only be able to seek and obtain admission to graduate school, if that is their realistic goal, or find a job that will begin their chosen career track; they should also be able to philosophically reflect on and express clearly their own goals and choices at this stage in their lives.

## MAJOR IN PHILOSOPHY

## Requirements

$\begin{array}{ll}\text { Phil } 101 & \text { Knowledge \& Reality OR } \\ \text { Phil } 102 & \text { Ethics and Values ............... } 3\end{array}$
Phil/ 212 Language and Logic ........... 3
Two courses from
Phil 205, 206, 207, 208 ................................ 6
Phil 494/ 495 Senior Seminar ..................... 4
Upper-division electives
in Philosophy .......................................... 12
Additional philosophy course
( 200 or above) or one course
from the following list:......................... 3-43-4

PACS 430 Human Rights
Hist 339 History of Science
Psy 226 History \& Systems
PolS 309 Classics of Political Philosophy
Psy 315 Cognitive Neuroscience
Soc 414 Sociological Theory
Engl 332 Introduction to Linguistics
31-32

## MAJOR IN PHILOSOPHY (BIOETHICS EMPHASIS)

Majors in the bioethics emphasis are educated in the liberal arts tradition, with a particular focus on the interface between philosophy and the health professions.

## Requirements

Phil 102 Ethics and Values ................ 3

## Phil/

Math 212 Language and Logic ........... 3
Two courses from
Phil 205, 206, 207, 208 .6

Phil 307 Ethics, Medicine \&
Health Care
.4
Phil 409 Moral Philosophy ..... 4
Phil 494/495 Senior Seminar ..... 4
One course in biology ..... 3
Two courses
from the following list: ..... 6-8
Phil $310 \quad$ Philosophy of Science
Phil 312 Philosophy of Biology
Psy $440 \quad$ Health Psychology andBehavioral Medicine
Hist 339 History of Science
Soc 319 Sociology of Medicine

## MINOR IN PHILOSOPHY

## Requirements

Phil 101 Knowledge \& Reality OR
Phil/
Math 212 Language and Logic .... 3
One course from 3
Upper-division electives in Philosophy 6-8
15-17
MINOR IN RELIGION
Requirements
Phil/
Math 212 Language and Logic ..... 3
Phil 110 Religion and theQuest for Meaning3
Phil 205
OR 206 Ancient Philosophy orMedieval Philosophy3
Phil 309 Philosophy of Religion ..... 4
Upper-division elective in philosophy 3-4
16-17

## COURSE DESCRIPTIONS

## Philosophy (Phil)

## Phil 101 Knowledge and Reality

An introduction to traditional issues in epistemology and metaphysics, including such topics as the nature and sources of knowledge, freedom and determinism, the relation of mind and body, personal identity, the relation of knowledge and values. 3 hours. Boersema, DeMoss. Offered annually.

## Phil 102 Ethics and Values

After developing a few tools of the trade for doing moral analysis, this course will explore the moral reasoning behind a number of contemporary moral issues. What is moral reasoning? What is the grammar of moral discourse? Is morality subjective or objective? Is moral discourse possible in the 21st century? What ethical insight might we derive from such complex contemporary debates as abortion, freedom of expression, and sexual ethics? 3 hours. Marenco, DeMoss. Offered annually.

## Phil 110 Religion and the Quest for Meaning

This course is an introduction to the academic study of religion. What are the most fundamental meta-narrataives that supply people and their communities with self-understanding? Typically, this course explores the identity mythologies of a variety of religious traditions. Religions normally covered are: Buddhism, Hinduism, Christianity, Judaism and Islam. Meets cross-cultural requirement. 3 hours. Marenco. Offered alternate years.

## Phil 205 Ancient Philosophy

A study of the major issues and personalities that constituted and shaped early western thought, from the pre-socratics (sixth century BCE) through the Hellenistic and Roman era (fourth century CE). 3 hours. DeMoss, Boersema. Offered alternate years.

## Phil 206 Medieval Philosophy

A study of the major issues and personalities that constituted and shaped medieval western thought from the fourth century through the fifteenth century. 3 hours. DeMoss, Boersema. Offered alternate years.

## Phil 207 Early Modern Philosophy: 1500-1750

A study of the major issues and personalities that constituted and shaped modern western thought from the sixteenth century through the eighteenth century. 3 hours. DeMoss, Boersema. Offered alternate years.

## Phil 208 Late Modern Philosophy: 1750-1900

A study of the major issues and personalities that constituted and shaped modern western thought from the mid-eighteenth century through the nineteenth century. 3 hours. DeMoss, Boersema. Offered alternate years.

## Phil/

## Math 212 Language \& Logic

This course is a survey of formal syntactic and semantic features of language, including topics such as sentential logic, predicate logic, axiomatic systems and set theory, and nonclassical extensions such as multivalued logics. 3 hours. Boersema. Offered annually.

## Phil 214 Philosophy of Art

This course is an introduction to philosophical issues related to the arts, including such topics as the nature of art, the metaphysics of art (e.g., form, expression, art as process vs. art as object), the epistemology of art (e.g., the locus of meaning in art, what constitutes artistic understanding, can art be "true", and the axiology of art (e.g., art and morals, the social significance of art, how can art be evaluated). Besides general philosophical issues connected to art, particular arts will be considered (e.g., painting, dance, $\quad$ music, theatre, film, architecture). 3 hours, Boersema, DeMoss. Offered alternate years.

## Phil 303 American Philosophy

A survey of major themes, movements, and figures of American philosophical thought from the seventeenth century to the present. Prerequisite: Sophomore standing. 3 hours. Boersema. Offered alternate years.

## Phil 305 Asian Philosophy

A study of Asian philosophical texts both historical and contemporary from various cultures, focusing for example on the Hinduism of India, the Taoism of China, and the Zen Buddhism of Japan, Prerequisite: sophomore standing. Meets cross-cultural requirement. 4 hours. DeMoss. Offered alternate years.

## Phil 307 Ethics, Medicine and Health Care

A study of ethical issues that arise in the health care professions. After working through the processes of moral reasoning and learning about some of the major moral theories this course will focus on major topics in health care today. Typically this course deals with such issues as abortion, physician assisted suicide, genetic manipulation and cloning, and comparative health delivery systems. Students will be able to do some independent research on a topic of their choice. Prerequisite: Sophomore standing. 4 hours. Marenco.

## Phil 309 Philosophy of Religion

An investigation of the structure and content of religious truth-claims. The various arguments for and against the existence of God will be considered along with a few of the more important theories about the nature of religious belief, the logical status of religious propositions and the notion of a "religious use" of language. Prerequisite: Phil 110 or Phil 101 or instructor's approval. 4 hours. Marenco. Offered alternate years.

## Phil $310 \quad$ Philosophy of Science

An investigation of issues and concepts within science and about science, including such topics as the nature of explanation, the nature of confirmation, the nature of scientific progress, the relations among science, technology, values and society. Prerequisite: Sophomore standing. 4 hours. Boersema. Offered alternate years.

## Phil 312 Philosophy of Biology

An introduction to philosophical issues within and about biology, including such topics as design, fitness, and adaptation; units of selection; the nature of species; taxonomy and classification; molecular biology and reductionism; sociobiology. Prerequisite: 8 hours in philosophy or biology. 3 hours. Boersema. Offered alternate years.

## Phil $314 \quad$ Philosophy of Mind

This course focuses on the nature of mind and consciousness as interpreted by contemporary philosophers of mind. What is consciousness? Who has it? How is it produced? Prerequisite: Sophomore standing. 4 hours. DeMoss. Offered alternate years.

## Phil 315 Philosophy of Law

An introduction to philosophical issues within and about law, including such topics as the nature of law, legal reasoning, liberty/rights and the limits of law, the nature of legal responsibility, the nature and justification of legal punishment. Prerequisite: Sophomore standing. 3 hours. Boersema. Offered alternate years.

## Phil 329 Feminism and Philosophy

This course explores the philosophical potential in the application of feminist categories to traditional areas of philosophical inquiry such as epistemology, logic, metaphysics and value theory. This course will also explore a variety of philosophical critiques of feminist categories and theory. Prerequisite: Sophomore standing. 4 hours. DeMoss, Marenco. Offered intermittently.

## Phil 403 Twentieth Century Philosophy

A study of the major issues and personalities in twentieth-century philosophy, in such movements and schools as pragmatism, existentialism, phenomenology, positivism, linguistic analysis, structuralism, poststructuralism, and critical theory. Prerequisite: Phil 208 plus one other course in the history of philosophy or instructor's approval. 4 hours. Boersema. Offered alternate years.

## Phil 409 Moral Philosophy

Intensive study in the field of moral philosophy, including such topics as the nature of moral epistemology, metaethics, and the metaphysics of morals. Prerequisite: nine hours in philosophy or instructor's approval. 4 hours. Marenco. Offered alternate years.

## Phil 412 Major Philosophers

Intensive study of the works of a major philosopher. Prerequisite: nine hours in philosophy or instructor's approval. 4 hours. DeMoss. Offered alternate years.

## Phil 420 Seminar in Philosophy

A concentrated study of various issues in philosophy, including such topics as philosophy of language, advanced logic, aesthetics, environmental ethics, moral philosophy, in-depth analysis of particular works or philosophers, etc. Prerequisite: Nine hours in philosophy or instructor's approval. 4 hours. Boersema, DeMoss, Marenco.

## Phil 494 Senior Seminar I

Required of all philosophy majors in the fall of the senior year; in the spring majors are required to enroll in Phil 495. The purpose of this seminar is to prepare the student to product a philosophical essay of significant length and quality, a senior thesis. This project will require researching, writing, defending, and perhaps publishing the essay. In Phil 494 students will research and prepare a substantial prospectus for the senior thesis; students will also read, discuss and critique the work of other members of the seminar. Prerequisite: fifteen hours in philosophy and instructor's approval. 2 hours. Boersema, DeMoss, Marenco. Offered fall annually.

## Phil 495 Senior Seminar II

Required of all philosophy majors in the senior year; in the fall majors are required to enroll in Phil 494. The purpose of this seminar is for each student to produce a philosophical essay of significant length and quality, a senior thesis. This project will require researching, writing, defending, and perhaps publishing the essay. In Phil 495 students will write and defend the senior thesis; students will also read, discuss, and critique the work of other members of the seminar. Prerequisite: Phil 494 and instructor's approval. 2 hours. Boersema, DeMoss,Marenco. Offered spring annually.

## PRE-PHYSICAL THERAPY

Admission to Physical Therapy is highly competitive for Pacific students as well as others. Pre-physical therapy requirements, like pre-medical requirements, concentrate in the sciences. Pacific's Physical Therapy School has always valued proficiency in writing and a strong education in the humanities and social sciences. To facilitate entry into the School of Physical Therapy, the University has established a gateway program to connect prospective students with the School of Physical Therapy during their years of undergraduate study. This program is outlined below.

Students do not major in "pre-physical therapy". Students complete a bachelor's degree before beginning the Physical Therapy program.

## Physical Therapy Prerequisites

Biol 202 General Biology I
12

Biol 224 Human Anatomy with lab

Biol 240 Human Physiology with lab

Statistics .3

Math 207 or Psy 350 or Soc 301
Phy 202 and 204 or
Phy 232 and 242 .8

Psych 150 (Intro) and one other psychology course
English/Writing - must include one writing course beyond the introductory level (Engw 201 or higher)
Humanities - This can be satisfied by carefully selected core requirements. (At least 3 hours must be outside of English) Fine Arts, humanities, history, philosophy, religion, English (in addition to English prerequsite), music, foreign language, speech/ communication . 6
Social Sciences (at least 3 hours must be outside of psychology)6

Courses from two of the following disciplines: anthropology, sociology, psychology, political science, economics.
Sophomore
Sophomore
Fall ..... 16

## SAM PLE of 4-Year Pre-PT Curriculum

Physics can actually be moved to any year if you want to double up on labs - and if Math prerequisites are met.

## Freshman

Fall
Chem 220 ................................................... 4
Math 125 ...................................................... 4
First Year Seminar ...................................... 4
Language Core .......................................... 3
15
Winter
HUM Elective ..... 3
$\overline{3}$Spring
Biol 202 ..... 4
Math 226 or elective ..... 4
Chem 230 ..... 4
Language Core ..... 3
15
Biol 204 ..... 4
Engw 201 ..... 3
Humanities or Art ..... 3
Psy 150 ..... 3
Elective ..... 3
16
Winter3
Spring
Chem 230 ..... 4
Social Sci (not Psy) ..... 3
Cross-cultural ..... 3
Art or Humanities ..... 3
Electives ..... 6
Engl Elective ..... 3
Junior
Fall
Biol-224 (Anatomy) ..... 4
Soc Sci elective ..... 3
Electives (for major) ..... 9$\overline{16}$
Winter
Elective .....  33
Spring
Biol 240 (Physiology) ..... 4
Engl elective ..... 3
Electives (for major) ..... 5
Senior
Fall
Phy 204 (or 232) ..... 4
Math 207 ..... 3
Electives (for major) ..... 5
Winter
Elective ..... 3 ..... 33
Spring16
Phy 204 (or 242 ..... 4
Electives (for major) ..... 9$\overline{13}$*Note:Biol 202 is a prerequisite for Biol 204 and Bio 224Biol 204 and Biol 224 are prerequisites forBiol 240Math 122 is a prerequisite for Math 207 andChem 220
Math 125 is a prerequisite for Chem 230 and Phy202
Math 226 is a co-requisite for Phy 232

## GATEWAY PROGRAM FROM THE COLLEGE OF ARTS AND SCIENCES TO THE SCHOOL OF PHYSICAL THERAPY

## Objectives

To establish ties with prospective undergraduate students, early in their college education, who show an interest in physical therapy.
To guarantee to students who successfully complete the Gateway program an interview for admission to Pacific University's School of Physical Therapy.

## Milestones

1. Students who indicate an interest in physical therapy at the end of their freshman year of college will be identified by their advisors and given information about participating in this program. Students who transfer from another institution or who decide later than their freshman year that they are interested in physical therapy will also be able to enter this program.
2. Students should obtain a course prerequisite form from the Office of Admissions
3. During the undergraduate's sophomore year, the student will be given the opportunity to participate in a mentoring program with a second year physical therapy student. A minimum number of meetings will need to take place between these two students during the school year. This is for support, for encouragement, and for allowing the undergraduate student have a contact person to ask questions.
4. By the end of the sophomore year in college, the student will have earned at least a 3.0 GPA, both overall GPA, as well as science GPA*.
*If the student is below a 3.0 GPA at that time, the student will be meet with their academic advisor and expected to develop a plan to improve his/her GPA. This should involve the student meeting with the counseling center/support services to obtain help with study skills. The plan should be reviewed by the student's academic advisor. Documentation of this process and improved GPA will be required.
5. One hundred hours of time spent observing physical therapists is a requirement for admission.
a. The 100 hours of observation should include 75 hours with a single physical therapist allowing the student quality time with the therapist and developing a relationship which would lead to a letter of reference. The remaining 25 hours could be used by the student to allow him / her to observe other areas of physical therapy. This internship can be a part of an internship for another course. It is expected that the course would have either an Exercise Science or Biology internship number attached to it. Students in need of assistance in identifying sites appropriate for this internship should send a written request to the School of Physical Therapy.
b. During the observation time, the student will be expected to keep a journal. To assist the student in preparing the essays for the application process, this written work should reflect on the essay topics and related matters. The current essay questions are: "Why do you want to become a physical therapist?" "Write about a patient who stands out to you and explain why?" "Write about a situation in which you facilitated a change."
c. At the end of the observation/internship the student must rate himself/ herself according to the evaluation form found as part of the application. The student can self assess his or her strengths and weaknesses.
6. Another milestone that the student will need to complete is a community service activity, with a minimum of 10 hours. This could occur during the school year or during the summer. Hours provided during a service learning course are applicable.
7. During the student's senior year, it is recommended that he/she enroll in the Understanding Disabilities course taught by Professors Nancy Cicirello, John Medeiros, and Tim Thompson.
8. The student would be expected to take part in a mock interview through Career Services to practice before interviewing for admission to the School of Physical Therapy.
9. Students interested in learning more about physical therapy and sharing information with peers should consider joining the pre-PT club.

## Portfolio

The student will put together a portfolio during his/her time in the Gateway program. This must be completed before the application deadline of her/his senior year so that it could be submitted with the application for admission into the School of Physical Therapy

## Contents of the portfolio:

A. Journal of observation experience.
B. Description of community service activity.
C. Documentation of types of interactions with PT student mentor.
D. Documentation of GPA by University transcript. If the cumulative and/or science GPA fell below 3.0 at the end of the sophomore year, description of steps taken to improve it.
E. Rating of self during observation time.
F. Work sheet for prerequisites.

## PRE-PHYSICIAN ASSISTANT STUDIES

Admission to the School of Physician Assistant Studies is highly competitive. The applicant must complete a bachelor's degree in any discipline, the prerequisite courses listed below and have a minimum of 1000 hours of experience in direct patient care prior to application to the program. In addition, the PA program utilizes computerbased learning throughout the program, therefore, each student is required to have a laptop computer and possess basic word processing skills.

The Physician Assistant Program Admissions Committee considers the following factors in the selection process:

- Strength and breadth of academic record
- Type and depth of prior health care experience
- Strength of letters of evaluation
- Content of application forms and care with which they have been completed
- Quality of writing ability as demonstrated by personal narrative
- Understanding of Physician Assistant profession
- Type of community volunteer activities
- Strength of on-campus personal interview

For additional information (other than prerequisites) about the Physician Assistant Program consult the graduate catalog

## Prerequisite Courses

All prerequisite course work and bachelor's degree must be completed in December prior to enrollment. The applicant must complete the following courses with a "C" or better.

- Biological Sciences $\mathbf{- 1 2}$ semester hours (3 courses*)
Anatomy (one course with lab) human preferred
Biol 224 Human Anatomy with lab
Physiology (one course with lab) human preferred
Biol 240 Human Physiology with lab
Microbiology or Bacteriology (one course with lab)
Biol 308 Microbiology with lab
- Chemistry - 11 semester hours (3 courses*)
Organic Chemistry or Biochemistry (one of the following courses)
Chem 310/311 Organic Chemistry I with lab
Chem 320/321 Organic Chemistry II with lab
Chem 380 Biochemistry
Two additional chemistry courses with lab (may include additional Organic or
Biochemistry Courses)
Chem 220 General Chemistry I
Chem 230 General Chemistry II
Chem 240-241 Survey of Organic Chemistry
Or any course listed above
- Statistics - 3 semester hours (one course)

Math 207 General Elementary Statistics
Psy 350 Behavioral Statistics
Soc 301 Social Statistics

- Psychology or Sociology - 3 semester hours (one course)
Any course in psychology or sociology
Soc 101 Intro to Sociology
Psy 150 Intro to Psychology
- English/writing - 6 semester hours (two courses taught at an English speaking university/college)
Engw 201 Expository Writing or Engw 301
plus a second course in writing or literature
*Courses taken to fulfill the science prerequisites must be those for science majors.


## Clinical Experience

Minimum 6 months ( 1,000 hours, paid or volunteer)
At the time of application submission, the applicant must be able to provide documentation of a minimum of 1000 hours of experience with direct patient contact in a health care setting. A wide range of types of experience will be considered such as: nurse RN/LPN, paramedic/EMT / corpsman, medical assistant/nurses' aide, medical technologist/ technician, respiratory therapist, physical therapist/assistant, speech therapist/assistant, psychologist/
therapist/ counselor, medical office manager, hospital / clinic/ nursing home facility volunteer, home health aide, outreach worker, patient educator, dental assistant and others.
In addition to the required courses, students are encouraged to learn Spanish and to take medical terminology. Students or advisors with questions about the School of Physician Assistant Studies should consult the Graduate Admissions office and the current PA program brochure.

## SAM PLE of 4-Year Curriculum of PA Prerequisites

Freshman
Fall
Math 125 ..................................................... 4
First Year Seminar ...................................... 4
Chem 220 ................................................... 4
Elective ....................................................... 3 15
Winter
Elective .....  3
Spring
Biol 202 ..... 4
Chem 230 ..... 4
Elective ..... 6$\overline{14}$
Sophomore
FallBiol 2044
Elective .....  3
Engw 201 ..... 3
Foreign Language ..... 3
Psych 150 ..... 3
16
Winter
Elective ..... 3

## Spring

Biol 304 4
Math 207 (Statistics) ..... 4
Engw 301 .....  3
Foreign Language .....  3
Elective (optional) ..... 3
Junior
Fall
Chem 240/241 (Survey of Organic) ..... 4
Biol 224 (Anatomy) ..... 4
Electives ..... 6$\overline{14}$
Winter
Elective ..... 3
Spring
Biol 308 ..... 4
Biol 240 (Physiology) ..... 4
Electives ..... 6
Senior
Electives ..... 16
16
Spring
Electives ..... 16

Note:
Biol 202 is a prerequisite for Biol 204
Biol 204 is a prerequisite for Biol 304
Biol 304 is a prerequisite for Biol 308
Math 122 is a prerequisite for Math 207
and Chem 220
Math 125 is a prerequisite for Chem 230

## PHYSICS

Mary H. Fehrs, Chair, Professor<br>Juliet W. Brosing, Professor<br>Kelly Craig, Instructor<br>W. Thomas Griffith, Distinguished<br>University Professor<br>Stephen Hall, Assistant Professor<br>Richard Wiener, Associate Professor

The program in physics is designed to prepare students for careers in applied physics and engineering, and graduate study in physics, engineering, and professional fields. Physics students are encouraged to gain practical experience through participation in on-campus experimental projects and industrial internships. Facilities are available for student research in optics, nuclear physics, astronomy, non-linear dynamics, and solid state physics. The majority of our graduates go to graduate school in physics and related fields or take engineering-related positions in technical industry.

Visit the Physics Department's Web site at http:// www.physics.pacificu.edu or through the main web site at http://www.pacificu.edu.

## Goals for the Physics Major

By successfully completing a major in physics, students will be able to:

1. Demonstrate conceptual understanding of fundamental physics principles.
2. Communicate physics reasoning in oral and in written form.
3. Solve physics problems using qualitative and quantitative reasoning that includes sophisticated mathematical techniques.
4. Conduct independent research or work successfully in a technical position.

## MAJOR IN PHYSICS

The student majoring in physics must complete the following:

## Physics Core Requirements

| Phy 232-242 | General (Workshop) |
| ---: | :--- |
|  | Physics I-II .......................... 8 |
|  | OR |

Phy 202-204 Introductory Physics I-II .... 8
$\begin{array}{ll}\text { Phy } 322 & \text { Modern Physics with } \\ & \text { Health Applications .......... } 4\end{array}$
Phy 332 Waves and Optics ............... 4
$\begin{array}{ll}\text { Phy } 380 & \text { Classical Mechanics: } \\ & \text { Dynamics ............................ } 4\end{array}$
Phy 420 Quantum Mechanics .......... 4
$\begin{array}{ll}\text { Phy } 460 \quad \text { Electric and Magnetic } \\ & \text { Fields ................................. } 4\end{array}$
Phy 490-492 Physics Capstone ................ 6

Phy 480-482 Physics Capstone $\begin{array}{ll}\text { Seminar .............................. } 2\end{array}$
AND an internship
OR research ............................... 4
Upper-division electives ....................... 6-8
40-42

## Other Requirements

Chem 220-230 General Chemistry I-II .. 8
Math 226-228 Calculus I-III................. 12

Students who are planning a career in teaching physical science at the high school level can, with prior department approval, substitute either Hist 339 (History of Science) or Phil 310 (Philosophy of Science) for four of the required upper division elective hours. Students planning a teaching career also have the opportunity to gain valuable teaching experience by serving as teaching assistants for lower division courses.

Because there are so many possible career paths for physics majors, we would like to offer some recommendations for upper division electives (of which 6-8 hours are required for the major). Below are suggestions for what we think would offer the best preparation for these alternatives. However, each student's interests are different; please discuss yours with a member of the department to develop a personalized selection of courses. All physics majors are strongly encouraged to take Math 311 (Differential Equations) and CS 150 (Introduction to Computer Science). Students are also encouraged to take other courses in Math and CS depending on their interests.

## Graduate School in Physical Science

Relativity
Thermodynamics and
Statistical Mechanics
Modern Topics in Physics
Electronics
Optics/Optometry
Geometric Optics
Modern Topics in Physics
Electronics
Engineering/Applied Science/ Health Science Careers

Electronics
Engineering Mechanics: Statics
Thermodynamics and
Statistical Mechanics
Teaching Physical Science in High School
Relativity
Thermodynamics and
Statistical Mechanics
History of Science
Philosophy of Science

## MINOR IN PHYSICS

The minor in physics is designed to give students a deeper appreciation of physics than can be attained in a one-year sequence. The minor in physics can enhance studies in other disciplines such as (but not limited to) chemistry, mathematics, computer science, and philosophy.

## Requirements

Phy 232-242 General (Workshop) Physics I-II OR
Phy 202-204 Introductory Physics I-II .... 8
Math 226-227 Calculus I-II .8
Phy 322 Modern Physics with Health Applications OR
Phy 332 Waves and Optics .4

## Seven additional upper-division credits in physics <br> 7

## MINOR IN APPLIED PHYSICS

The minor in applied physics is designed for students interested in employment in the high tech industry or in engineering. The minor in applied physics can be used toward completion of the applied science major.

## Requirements

Math 226-227 Calculus I-II
Phy 232-242 General (Workshop)
Physics I-II
OR
Phy 202-204 Introductory Physics I-II .... 8
Phy 322 Modern Physics with Health Applications OR
Phy 332 Waves and Optics ................ 4
Phy 364 Electronics ........................... 4
One of the following (if not counted above) .... 3-4
Phy 322 Modern Physics with Health Applications
Phy 332 Waves and Optics
Phy 376 Engineering Mechanics: Statics

Phy 384 Thermodynamics and Mechanics
Phy 325 Modern Topics in Physics
One of the following .4
Phy 380 Classical Mechanics: Dynamics
Phy 420 Quantum Mechanics,
Phy 460 Electric \& Magnetic Fields

Any student interested in a physics minor should consult with a faculty member in the Department of Physics.
Since all of our upper-division courses (except Physics Capstone) are taught on an alternate year basis, below is a schedule of our courses for the next two years:

## Upper-division <br> Course offerings 2002-2003

## Fall

Waves and Optics
Classical Mechanics: Dynamics
Geometric Optics
Physics Capstone I
Physics Capstone Seminar I

## Winter III

Engineering Mechanics: Statics

## Spring

Thermodynamics and Statistical Mechanics
Electric and Magnetic Fields
Physics Capstone II
Physics Capstone Seminar II

## Upper-division <br> Course offerings 2003-2004

## Fall

Modern Physics with Health Applications
Geometric Optics
Electronics
Physics Capstone I
Physics Capstone Seminar I
Winter III
Relativity

## Spring

Modern Topics in Physics
Quantum Mechanics
Physics Capstone II
Physics Capstone Seminar II

## COURSE DESCRIPTIONS

All prerequisite courses must be completed with a grade of "C-" or better.

## Physics (Phy)

## Phy $110 \quad$ Physics of Everyday Phenomena

Designed to develop an understanding of the phenomena of our everyday life via the laws of physics. The emphasis is not on problem solving but on encouraging students to understand and appreciate their environment from a new perspective. Includes topics in mechanics and other physics subfields such as thermal physics, electrical phenomena. 3 hours. Brosing.

## Phy 111 Physics of Everyday Phenomena Laboratory

A laboratory course taught for Phy 110 students. Includes experiments in mechanics, thermal physics, and electric circuits. Satisfies laboratory core requirement. Co-requisite: Phy 110. 1 hour. Craig.

## Phy 120 Inquiries in Electricity and Magnetism

This is an activity based course for non-science majors, designed to develop a conceptual understanding of both current and static electricity, magnetism, electromagnetic induction, and related concepts at an introductory level. Laboratory investigations are an integral component of this course. Students cannot receive credit for both Phy 110 and Phy 120. 3 hours. Wainwright. Not offered 2002-2003.

## Phy 202 Introductory Physics I

The first semester of an algebra-based sequence in physics. Topics include Newtonian mechanics, work, momentum, and energy. The lab component includes computer based experiments in mechanics. Satisfies Natural Science core requirement. Prerequisite: Math 1254 hours. Hall, Fehrs.

## Phy 204 Introductory Physics II

The second semester of an algebra-based sequence in physics. Topics include heat and thermodynamics; electricity and magnetism; sound and light waves. The laboratory component includes computer based experiments in heat and thermodynamics; electric circuits. Satisfies Natural Science core requirement. Prerequisite: Phy 202 or Phy 232. 4 hours. Fehrs.

## Phy $232 \quad$ General Physics I Workshop Physics I

An introductory course in physics (calculusbased) for science and pre-engineering students. First term includes Newtonian mechanics. This course is an inquiry-based, laboratory-oriented course. Satisfies Natural Science core requirement. Co-requisite: Math 226. 4 hours. Brosing

## Phy 242 General Physics II Workshop Physics II

A continuation of Phy 232 including electricity and magnetism, thermodynamics, and nuclear physics. Satisfies Natural Science core requirement. Prerequisite: Math 226, Phy 232 or Phy 202. 4 hours. Wiener.

## Phy 310 Relativity

An introduction to Einstein's special and general theories of relativity, with emphasis on the special theory. Topics include the principle of relativity, space-time effects of the Lorentz transformations, relativistic energy and momentum, Minkowski diagrams, the equivalence principle, the geometry of space-time, and gravity. Prerequisite: Phy 202 or 232, Math 226. 3 hours. Hall. Wiener. Alternate years. 2003-2004.

## Phy 322 Modern Physics with Health Applications

A project-orientated course taught in a workshop environment that covers important topics in modern physics with applications to human health. Topics include the Bohr theory of the atom, wave/particle duality, atomic and nuclear physics, and an introduction to Schrodinger's equation. Projects may include nuclear medicine, radiation therapy, neutron activation analysis, and magnetic resonance imaging. Prerequisite: Phy 204 or 242, Co-requisite: Math 227. 4 hours. Brosing. Alternate years. 2003-2004.

Phy 325 Modern Topics in Physics A class on topics of current interest in physics. May be taken more than once for credit, as the topic will vary. Prerequisite: Phy 204 or 242, one upper division course in Physics, Math 227. 4 hours. Alternate years. 2003-2004.

## Phy $330 \quad$ Geometric Optics

(Also listed as Opt 501) The principles and applications of geometric optics, including the propagation of light, reflection and refraction, thin lenses, combinations of lenses, thick lenses, lens systems, mirrors, aberrations, stops and pupils, gradient-index lenses, and optical systems. Prerequisite: Phy 204 or 242, and physics major or minor. 4 hours. Griffith.

## Phy 332 Waves and Optics

A course on the mathematical description of waves with application to optics. Topics will include wave addition, an introduction to Fourier analysis, laws of geometric optics, image formation, optical systems, interference and diffraction, polarization, lasers, and an introduction to transform optics including holography. The laboratory component will include selected experiments in wave motion, geometric optics, and physical optics. Prerequisite: Phy 204 or 242, Co-requisite: Math 227. 4 hours. Wiener. Alternate years. 2002-2003.

## Phy 364 Electronics

The basic principles underlying circuit analysis and the operation of analog and digital electronic devices, including: diodes; transistors; op-amps; logic gates; multivibrators; counters; registers; memories; and $A / D$ and $D / A$ converters. Prerequisite: Math 125, Phy 204 or 242. 4 hours. Hall. Alternate years. 2003-2004.

## Phy 376 Engineering Mechanics: Statics

Presentation, discussion, and application of the principles of static mechanics to problems in physics and engineering including: force analysis, equilibrium in two and three dimensions, trusses and frames, internal forces, centroids, and cables. Special emphasis is given to problem-solving techniques. Prerequisite: Phy 232 or Phy 202, Math 226. 3 hours. Hall. Alternate years. 2002-2003.

## Phy 380 Classical Mechanics: Dynamics

Presentation and discussion of the kinematics and dynamics of single particles and systems of particles, both in inertial and non-inertial frames of reference. In addition to the standard analytical techniques, approximation techniques and a computer algebra system will be used for problem solving. Several mechanical systems will be studied experimentally and computationally. Prerequisite: Phy 204 or 242, Math 227. 4 hours. Fehrs. Alternate years. 2002-2003.

## Phy 384 Thermodynamics and Statistical Mechanics

Presentation, discussion, and application of the laws of thermodynamics and statistical mechanics including gas behavior, equations of states, phase transformations, kinetic theory, probability distributions, ensembles, and the partition function. Prerequisite: Phy 204 or 242 and one upper division course in physics, Math 227. 4 hours. Hall. Alternate years. 2002-2003.

## Phy $420 \quad$ Quantum Mechanics

An introduction to quantum mechanics and its application to: free particles, barriers, the simple harmonic oscillator, the hydrogen atom, angular momentum, spin, and identical particle systems. A computer algebra system will be utilized for problem solving and visualization. Prerequisite: Phy 322 or Phy 332, Math 228 or Math 311. 4 hours. Fehrs. Alternate years. 2003-2004.

## Phy $460 \quad$ Electric \& Magnetic Fields

Development of the nature and mathematical description of electric and magnetic fields in free space and material media, including: Maxwell's equations, electrostatics, magnetostatics, dielectrics, and solutions of Laplace's and Poisson's equations. Prerequisite: Phy 322 or Phy 332, Math 228. 4 hours. Brosing. Alternate years. 2002-2003.

## Phy $480 \quad$ Physics Capstone Seminar I

 The physics seminar portion of Phy 490. (See description of Phy 490). Co-requisite: Senior standing as a physics major, and research or an internship in physics. 1 hour. Staff.
## Phy 482 Physics <br> Capstone Seminar II

The physics seminar portion of Phy 492. (See description of Phy 492). Co-requisite: Senior standing as a physics major, and research or an internship in physics. 1 hour. Brosing, Fehrs, Wiener, Hall, Staff.

## Phy $490 \quad$ Physics Capstone I

The capstone course involves a weekly seminar and a year long research project. In the weekly seminar, students learn how to make presentations and how to do "on-the-spot" problem solving. There will also be outside speakers on current physics research. The other portion of the capstone experience is a year long research project. In addition, there will be weekly meetings in which students discuss their ongoing research projects. The research project will comprise 2 credits of the course. Co-requisite: Senior standing as a physics major. 3 hours. Brosing, Fehrs, Wiener, Hall, Staff.

## Phy $492 \quad$ Physics Capstone II

A continuation of Physics 490. At the end of Physics 492 students will give final oral presentations on their research project or their internship, and submit their research/internship paper. Prerequisite: Physics 490. 3 hours. Brosing, Fehrs, Wiener, Hall, Staff.

## Phy 495 Research

Student-conducted individual research project. 1-3 hours. Brosing, Fehrs, Griffith, Hall, Wiener.

## POLITICS \& GOVERNMENT

Russell A. Dondero, Professor

Jeffrey G. Seward, Associate Professor

## Robert Van Dyk, Chair, Associate Professor

Politics and government is the process by which a community decides what common goals it wants to achieve, what its rules will be, and how those policies and rules will be carried out or enforced. Nothing is more important to a healthy society. We are fascinated by the political process in the United States and in the world and concerned about its outcome, and we welcome all students who share that interest.

While our program provides an excellent foundation for graduate study in political science, the primary focus of the Department is on providing skills and habits of mind useful in a wide range of professions. Recent graduates of the Department have found jobs and careers in law, politics, business, teaching, journalism, and government service. Some of our graduates continue their education in professional programs in law, business (M BA), international affairs, education, public administration, and other fields. Many work directly after college (often as staff members for elected officials or government agencies) before going on to graduate school.

## Goals

The goals of our curriculum emphasize broad knowledge of political phenomena, practical skills of analysis and communication, and an understanding of theoretical approaches to politics. Graduates will know how to analyze policy problems in a clear and logical way; how to make oral presentations; how to find information; how to write well in the form of a memorandum, short essay, a research report, and an academic paper; how to work in groups; and how to use electronic communication.

## Program

The curriculum is focused on a variety of approaches to political analysis, practical hands-on experience, and student research. An internship or study abroad is strongly recommended for all majors as a useful part of their preparation. The required senior thesis may take a variety of forms ranging from a hands on project based on student field research to statistical analysis of quantitative data to an abstract theoretical treatment of a problem in political philosophy.
The Department's co-curricular program is highlighted by the annual Tom McCall Forum, an event which brings pairs of nationally prominent speakers to Pacific and Oregon. Recent pairings have included Mary Matalin and James Carville (2000), Ralph Reed and Alan Dershowitz (2001) Ralph Nader and Newt Gingrich (2002).

## Internships and Study Abroad

While it is not an absolute requirement, the Department strongly encourages all majors to include in their program a semester-long, off-campus experience.
Over half of our majors find internships, most commonly in the Oregon Legislature or Congressional offices in Washington. Other possible internship sites include social service agencies, government agencies, interest groups, or law firms. Internships for credit involve close collaboration with a faculty advisor and are limited to one semester. Only six hours of internship credit is directly applicable to the requirements of the major.
Pacific offers many study abroad possibilities in England, France, Germany, China, Japan, Ecuador, Mexico, and a number of other countries. These programs are described in detail in the Study Abroad section of the catalog. Students going abroad should include in their plan the language, history, culture, and economy of their area of interest. No more than six hours of academic work taken abroad (nine hours in the case of those studying abroad for an entire academic year) may be directly applied to the requirements of the major.
Junior year is the best time for off-campus study. Seniors off campus in the fall semester may omit the fall term senior
seminar but during that time must prepare a first draft of their senior project for completion and presentation in the spring.

## MAJOR IN POLITICS \& GOVERNMENT Introductory Courses

The department offers three introductory level courses, PolS 101, PolS 140, and PolS 180, described in more detail below. None of these courses are required for the major but any of them may be counted for the major. Students interested in the possibility of majoring in politics and government are strongly encouraged to begin with one of these courses.

## Required Complementary course Work

The following complementary course work outside the Department is a required part of the major. Prospective majors should try to complete these requirements as early as possible in their academic program.
Econ 101 OR 102 (one required, both recommended)
Soc 301 Social Statistics ..... 4
Two semester courses in history approved by the Department. ..... 6-8
PolS Requirements
PolS 299 Political Analysis ..... 4
PolS 309 Classics of Political Philosophy ..... 4
PolS 401-402 Senior Seminar and Thesis ..... 6
21 Semester hours of PolS electives ..... 21

## These 21 hours must include:

1. at least one course in American Politics or Law
2. at least one course in Comparative Politics/ International Relations at the 200 OR 300 level.
3. at least two other upper-division PolS courses.
Up to six hours of PolS internship credit may be counted toward the major, but these six hours may not be counted toward any of the specific upper-division requirements listed above.

## MINOR IN POLITICAL SCIENCE

## Requirements

18 semester hours of PolS electives, at least 12 hours of which must be at the upperdivision level.

## COURSE DESCRIPTIONS

## Political and Government (PolS)

## PolS 101 Power \& Community

Exploration of such key concepts as power, authority, legitimacy, justice, law, democracy, social welfare, and human rights. Introduction to analysis of policy problems. 3 hours.

PolS $140 \quad \begin{aligned} & \text { Conflict \& Controversy in } \\ & \text { American Politics }\end{aligned}$
The most enduring questions about politics are the who, the what, the when, and the how of politics. This course seeks to answer these questions as they pertain to the American political system. 3 hours.

## PolS 180 The United States in World Affairs

A first course in international relations, focused on current problems and concerns in United States foreign policy. These include both "offshore" issues such as human rights and peacekeeping and "intermestic" issues such as trade and immigration. The course will begin with an overview of American foreign policy traditions and attitudes and of the 20th century background. Students will prepare a case study analysis, a policy and negotiating proposal, and a response to a crisis scenario. 3 hours.

PolS 221 Politics in Literature \& Film Exploration of a single major theme of politics through the medium of literature and film. Possible course themes include Latin American film, revolution, war, utopia, propaganda, the Cold war and American political culture. May be repeated for credit when topics vary. Winter III only. 3 hours.

PolS 222 The Civil Rights Movement This course examines the causes, history, and tactics of the struggle to guarantee AfricanAmericans equal treatment under the law in the United States. The primary focus of course material is on the political movement for racial equality in the United States from 1954-1968. Winter III only. 3 hours.

## PolS 223 Women in Politics

This course surveys historical perspectives and contemporary realities about the role of women in political life. Major topics covered include the treatment of women in the classic texts of political philosophy and feminist reactions to that tradition, a survey of historical and contemporary women's political movements and political participation in the United States and a comparative view of women's political participation in non-U.S. settings (cross-listed in Feminist Studies). 3 hours.

## PolS 224 Environmental Politics

This course introduces students to environmental disputes and the forces that affect environmental policy. Topics include the history and evolution of environmentalism and environmental policy and an extensive case study of a local environmental issue. Students will attend the Environmental Law Conference in Eugene in March, and they will go on several shorter field trips. 3 hours.

## PolS 240 Latin American History

A broad survey of political, social, and economic history of Latin America from pre-Columbian civilizations to the 20th century. Special emphasis will be given to the complex ramifications of the interaction of European conquerors/settlers, African slaves and the indigenous peoples of the region (cross-listed in History). Meets crosscultural requirement. 3 hours.

## PolS 299 Political Analysis Seminar

This course introduces students to some of the basic forms of political analysis including scholarly research, policy analysis, and political strategy. The course is organized as a seminar in which students will be required to present their own projects to the class and actively participate in class discussion. Required for majors (should be taken sophomore year). Prerequisite: PolS 101 strongly recommended. 4 hours.

## PolS 301 Politics and the Media

Examines the impact of the media upon the political process; the relationship between the press and politicians; and whether the press is a "neutral" force in American politics. Biennially. 4 hours.

## PolS 302 Parties and Elections

The development of political parties and their organization, function and campaign methods. Analysis of interest groups and their effect on government and political parties. Public opinion and propaganda. Involvement in a political campaign encouraged. Biennially. 3 hours.

## PolS 303 Congressional Politics

Course focuses on the organizational dynamics of the Congress as the primary legislative body in our national government. The external environment will also be examined to understand how the lobby, the media, the other branches of government influence the legislative agenda. Biennially. 3 hours.

## PolS 304 Grassroots Politics

Course examines how citizens and interest groups shape "grassroots" politics, state and local government in the United States. 3 hours.

## PolS 305 The Presidency

An examination of the evolution of the American presidency as the dominant office within our political system. Biennially. 3 hours.

## PolS 309 Classics of Political Philosophy: From Plato to Postmodernism

Examines the evolution of ancient, modern and contemporary political thought from the ancient Greeks to the 20th century. Major political theorists who may be studied include: Plato, Aristotle, Augustine, Machiavelli Hobbes, Locke, Rousseau, Hegel, Mills, Marx, Arendt, Rawls, Nozick as well as feminist and postmodernist critics of traditional political thought. Required for majors. Prerequisite: Junior standing or sophmore PolS major. 4 hours.

PolS 310 Markets, Politics, and Justice An examination of political economy ( the interaction of politics and economics) with respect to topics such as macroeconomic policy-making, industrial policy, income distribution, development strategies, and the welfare state plus the political dimensions of economic ideologies including classical liberal, Marxist, and social democratic perspectives. Prerequisite: Economics 101 or 102 strongly recommended. 3 hours.

## PolS 320 Law and Society

An introduction to the role of law in structuring social relations. The course examines the various ways we encounter the law as it is made by legislatures, as it is made by judges, and as it is practically applied. The course requires an extensive case study of the law as written and applied in a business or political organization. Biennially. 3 credits.

## PolS 321 Protest, Dissent, \& Social Change

This course examines the causes and history of widespread movements that use protest to promote political change. Topics include theories of social movements and case studies that may include the labor movement, the civil rights movement, the women's movement, the environmental movement, and the recent rise of conservative Christian activism. 3 hours.

## PolS 323 Management and Policy

How organizations function, and how they are managed and led, applied to government and nonprofit agencies. Policy analysis, decisionmaking, and policy effectiveness. Students will write a case study analyzing an organization or decision, based on field research. Prerequisite: upper-division standing. 4 hours.

## PolS 325 Constitutional Law

An introduction to the judicial process, legal reasoning and interpretation of the Constitution through analysis of court cases. Subjects include federalism, property, race, gender, and privacy. Biennially. 4 hours.

## PolS 326 Civil Liberties

This course examines the development of civil liberties in the United States by focusing on the role of the Supreme Court. Subjects include freedom of speech, freedom of press, freedom of religion, and the rights of the accused. Biennially. 4 hours.

## PolS 332 Contemporary <br> Latin America

An introduction to the politics of the region with a brief survey of history, race relations and political economy of Latin America followed by an analysis of selected individual countries including Brazil, Mexico, Cuba and others. Meets cross-cultural requirement. 3 hours.

PolS 340 International Relations
Nationalism and cultural identity; the international system and world organization; problems of conflict and war; issues of human rights and democracy; economic globalization and development; and security issues such as the spread of weapons of mass destruction. Prerequisite: upper-division standing. 4 hours.

## PolS 350 Special Topics in Political Science

Courses of varying formats on specific topics not included in the regular curriculum. Recent examples include Conservative Political Thought, Contemporary Mexico, and Salmon Crisis. May be repeated for credit when the topics vary. 3 hours.

## Pols 370 School and Society

Explores the relationship between schools and society. The readings, discussion, and reflections are designed to help aspiring teachers develop an understanding of the philosophical, historical, socio-cultural, and legal foundations of education. 2 hours. (offered only during summer session)

## PolS 399 Independent Study

Student-conducted individual research/ theoretical project. Faculty supervised. 1-3 hours.

## PolS 401-402 Senior Seminar and Thesis

In the first semester, students will define their research project, gather necessary information, and write the first draft of their thesis. The seminar will also meet weekly or bi-weekly to discuss selected readings in political issues and ideas. In the second semester, along with further group meetings and discussions, students will revise and complete their project and formally present it to the seminar. Both semesters required of all majors in their final year. Prerequisite: PolS 299 and two 300-level PolS classes. 3 hours each semester.

## PRE-MEDICAL STUDIES

See Dr. Jon Schnorr or Dr. Jodi Paar
Because of the sequential nature of many of the required courses, students who are considering medical school should seek out the advice of Dr. Jon Schnorr, Biology or Dr. Jodi Paar, Chemistry during their first year.

All medical schools require introductory courses in Biology, Chemistry, English, Mathematics and Physics, as well as a year of Organic Chemistry. However, students may enter medical school with any major. A list of courses that will satisfy the admission requirements of nearly all medical schools is given below. Students should consult the Guide to Medical Schools published by the American Association of Medical Colleges about specific requirements for schools in which they are interested.

For those students who wish to enter medical school in the year following graduation from Pacific, it is necessary to complete all of the listed courses by the end of the junior year to ensure adequate background for the MCAT exam required for application to all U.S. medical schools. Note that the Biological Sciences portion of the MCAT includes significant amounts of material that are not covered in introductory Biology courses. Pre-medical students are encouraged to take additional Biology courses, particularly courses in cell and molecular biology and physiology.

Applications to take the MCAT and applications for medical school (through AMCAS) are available on the Web or through the Career Development Center. Most medical schools require evidence of clinical experience prior to applying to medical school. Pre-medical students should begin obtaining clinical experience during their first year. The Career Development Center can assist students in finding an internship or field experience in the medical field.

## Required courses:

Biol 202 General Biology I<br>Biol 204 General Biology II<br>Chem 220 General Chemistry I<br>Chem 230 General Chemistry II<br>Chem310/311 Organic Chemistry I<br>Chem 320/321 Organic Chemistry II<br>Engw 201 Expository Writing<br>Math 226 Calculus I<br>Physics 202 Introductory Physics I OR

Physics 232 General Physics I
Physics 204 Introductory Physics II OR

Physics 242 General Physics II

Strongly recommended courses:
Biol $320 \quad$ Cell Biology
Biol 330 Genetics
Biol 400 Molecular Biology
Biol 470 Animal Physiology
Chem 380 Biochemistry
CS 130 Introduction to
Software Tools
Math 207 General Elementary Statistics

Todd Schultz, Chair, Associate Professor
Mark Bodamer, Assistant Professor
Alyson Burns-Glover, Professor
Linda Gallahan, Associate Professor
Erica KleinKnecht, Assistant Professor
Psychology can be defined as the empirical analysis of mind and behavior. The department members believe that reliable knowledge of psychological processes represents a necessary condition for meaningful action in the world. History, culture, art, economics, sociology, international affairs, health and biological sciences - virtually any field of study profits from attention to psychological variables. Psychology is a versatile, inherently interdisciplinary, and multi-methodological enterprise. We concur with William James, who wrote: "The union of the mathematician with the poet, fervor with measure, passion with correctness; that surely is the ideal."

Our faculty teach a range of courses representing the discipline's major subject areas: Social, Developmental, Biocognitive, and Personality Clinical. Psychology classes stress the importance of data analysis, but at the same time encourage students to keep theoretical, "Big Picture" issues in mind. Because we support the traditional aims of liberal arts education, we help students learn how to think clearly and critically, challenge orthodox assumptions, organize and present complicated information, make use of both qualitative and quantitative methods, write well, and develop a commitment to ideals of scholarship and lifelong learning.

Initial requirements for the major in Psychology include Introduction to Psychology; M ind, Theory \& Method; Experimental Psychology; and Behavioral Statistics. Students then choose from a menu of elective courses, some focused on basic processes, some strictly theoretical, and some applied. The major concludes with a required Senior thesis proposal in which students reflect over the field, consolidate know ledge from previous classes, and form hypotheses of their own.

## Goals of the Major

The goals of the Psychology Department are to:

- introduce students to methods of critical analysis that will allow them to interpret and evaluate research and theory;
- expose students to a broad selection of courses that typify the breadth of the discipline and the expertise of departmental faculty;
- instill in students cooperative learning strategies that will enable them to participate effectively in group projects;
- perfect students' abilities to write clearly, succinctly and with authority, and to orally present theory and data;
- and guide students' career choices by providing them with information on opportunities in basic and applied Psychology, as well as allied health and service professions.


## MAJOR IN PSYCHOLOGY

The Psychology major must complete the following required courses with a grade of "C" or better and maintain a 2.0 grade point average for Psychology electives:

## Requirements

| Psy 150 | Introduction to <br> Psychology .......................... 3 |
| :--- | :--- |

Psy 248 Mind, Theory \& Method .... 3
Psy 348 Experimental Psychology .. 3
Psy 349 Experimental Psychology Lab ................... 1
Psy 350 Behavioral Statistics ............ 3
Psy 390 Junior Seminar .................... 3
Psy 491 Senior Thesis Proposal (non 499 track)

## OR

Psy 499 Advanced Senior Research
Plus required electives:
Courses that reflect the study of mind, body, \& behavior over time: Psy 180 or 340 ..... 3
in diverse contexts:
Psy 160, 213, 260, 308, or 408 ..... 3
Courses that explore the human psyche:
Psy 208, 309, 311 or 444 ..... 3
the function of brain/body:
Psy 315, 321, OR 352 .....  3
Plus general electives:Any two Psychology, or approved,electives6
The requirements listed above are for the Bachelor of Arts Degree with a major in Psychology. Students pursuing a Bachelor of Science degree with a major in Psychology must also complete the following requirements.

## Additional courses:

Two additional science laboratory courses8

## MINOR IN PSYCHOLOGY

The Psychology minor must complete the following required courses with a grade of "C" or better and maintain a 2.0 grade point average for Psychology electives.

## Requirements

| Psy 150 | Introduction to <br> Psychology .......................... 3 |
| :--- | :--- |

Psy 248 Mind, Theory \& Method .... 3
Plus five electives ..................................... 15
(Two must have a Psy prefix. Two must be upper-division courses.)

Students interested in the Psychology minor should consult with a faculty member of the department prior to choosing electives.
Courses from other departments approved for elective credits in Psychology:

Bio 330 Genetics ..... 3
Phil 103 Critical Thinking ..... 3
Phil 310 Philosophy of Science ..... 3
Phil 314 Philosophy of Mind ..... 3
Soc $317 \quad$ Gender \& Sexuality ..... 3
COURSE DESCRIPTIONS
Psychology (Psy)
Psy 150 Introduction to PsychologyThis course provides an overview of psychologyincluding psychobiology, learning, memory,perception, motivation, development, social,behavioral/emotional problems and treatments.3 hours. Staff.

## Psy $160 \quad$ Culture \& Behavior

This course provides a cross-cultural review of general principles of human psychology. Emphasis is on the organizing syndromes of particular cultures and how these world views affect an individual's emotions, cognitions and behaviors. Fills cross-cultural core requirement. 3 hours. Burns-Glover.

## Psy 180 Lifespan Human Development

A survey of human development and developmental theories from conception until death focusing on physical, cognitive, and social changes that occur across the lifespan. Recommended for non-majors. 3 hours. Gallahan.

## Psy 208 Addictions and Society

This course takes a transhistorical, interdisciplinary approach to the question of alcohol, substance abuse and the social costs of addiction and use. We will address the human motive to alter consciousness using classic and modern research in the physiology of addiction; sociocultural risk factors and changing cultural representations of drug use. 4 hours. Burns-Glover. (Same as PACS 208.)

## Psy $210 \quad$ Current Issues in Psychology

A seminar-style course on subjects of special interest and current importance within the field, such as The Nature of Self-Concept, Life-Story Models of Identity, Intelligence, Evolutionary Psychology, or Buddhism, Psychology, and the Mind. Precise topic varies from semester to semester. May be repeated for credit as topic varies. 3 hours. Staff.

## Psy $213 \quad$ Psychology of Altruism and Aggression

Historical and modern review of the human and non-human primate behaviors related to altruism, empathy, violence, competition and aggression from a social, biological, interspecies and cross-cultural perspective. 3 hours. Burns-Glover. (Same as PACS 213.)

## Psy 215 Memory and Mind

The study of human memory which focuses on how memory and other mental functions work, how they fail, and why we think the ways that we do. This course samples across a range of human thought processes, including memory, reasoning, language, and problem solving. 3 hours. KleinKnecht.

## Psy $220 \quad$ Community Psychology

The study of how psychology can be applied to social services such as community mental health centers to effect social change. Emphasis is on planning, prevention, early intervention, research and evaluation as well as how to strengthen existing social support networks and create new ones. Empowerment and primary prevention will be focus of attention. Prerequisite: Psy 150 or Soc 101 or Soc 102. 3 hours. Staff.

Psy $225 \quad \begin{aligned} & \text { Human Learning } \\ & \text { and Motivation }\end{aligned}$
Course investigates principles of learning and motivation among humans and other animals. Class will explore applications of these principles in education and society at large. 3 hours. Bodamer.

## Psy 226 History and Systems of Psychology

An inquiry into the foundations of modern psychology. The intellectual heritage of the discipline within philosophy and the natural sciences will be examined and critiqued. We will consider major theories, emerging research directions and controversies within the sub disciplines of psychology. 3 hours. Staff.

Psy 248 Mind, Theory, and Method This course will present the historical dialectic between rationalism [theory] and empiricism [data] within the discipline. We will focus our attention on the current rise of neuroscience, behavioral genetics and the return to mind in psychological research. Students will learn the current status of several controversial dichotomies: Mind-body dualism, NativismEnvironmentalism, Essentialism-Operationalism, etc., and the role that social values play in the creation, testing, and interpretation of scientific theories. 3 hours. Staff.

## Psy $260 \quad$ Psychology of Women

A survey of the physiological, emotional, and cognitive aspects of the female experience. This course examines both the similarities and differences between men and women, with emphasis on experiences which are unique to women. Cultural expectations are examined, particularly those which either overemphasize sex differences or underestimate their psychological and sociocultural value. Prerequisite: Psy 150 or FS 201 or permission of the instructor. 3 hours. Staff.

## Psy $280 \quad$ Children in Time and Place

This course examines human cognitive, social, personality and physical development from conception through adolescence across cultures with an emphasis on cross-cultural comparisons and universals. Meets cross-cultural corerequirement. 3 hours. Gallahan.

## Psy 308 Social Psychology

A consideration of humans as social beingshow they affect and are affected by others. Topics included are: perception of persons, affiliation, communication and attitude change, group processes, leadership, intergroup tension, cultural syndromes, and social roles. Prerequisite: Psy 150 and upper-division standing. 3 hours. Burns-Glover.

## Psy 309 Personality Psychology

Students study the grand theories of personality through detailed examination of original writings by Freud, Skinner, R.D. Laing, and Maslow, among others. We explore the assumptions, logic, and ramifications of psychological theory, and its place in modern experimental psychology. Some critique of psychology as a discipline is included. Prerequisite: Psy 150 and upper-division standing (or permission of the instructor). 3 hours. Schultz.

## Psy 311 Abnormal Psychology

Students critically explore major categories of disorder, with special emphasis on dissociative identity disorder, depression, schizophrenia, and borderline personality. Questions are raised about the use of psychiatric drugs, and attention is paid to the history of insanity. Includes both textbook and original readings. Prerequisite: Psy 150 and upper-division standing (or permission of the instructor). 3 hours. Schultz.

## Psy 315 Cognitive Neuroscience

This course examines a range of cognitive processes including perception, memory, problem solving, imagery, and language. A special emphasis will be placed on current neuroscientific investigations into these topics. Prerequisite: Psy 150 and upper-division standing (or permission of the instructor). Bio 110 or 224 or 240 strongly recommended. 3 hours. KleinKnecht.

## Psy 321 Sensation \& Perception

An in-depth analysis of how organisms perceive and comprehend their world. The course explores how receptors, transaction, and neural networks shape and constrain our perception of reality. Prerequisite: Psy 150 and upper-division standing (or permission of the instructor.). Bio 110 or 224 or 240 strongly recommended. 3 hours. KleinKnecht.

## Psy $340 \quad$ Child Development

An in-depth analysis of child development with a focus on contemporary research from the bio-social-behavioral framework. Students will conduct an in-depth study on a chosen topic. Prerequisite: Psy 150 and upper-division standing. 3 hours. Gallahan.

## Psy 348 Experimental Psychology

This course examines the principles of research design, methodology, and analysis, and their application to a wide range of substantive areas in psychology. The use of a wide variety of social research strategies will be addressed. Prerequisite: Psy 150 and upper-division standing (or permission of the instructor) "C" or better in Psy 150. Must be taken in Junior year. Co-requisite: Psy 349. 3 hours. Fall Only. Staff.

## Psy 349 Experimental Psychology Laboratory

A laboratory course to be taken concurrently with Psy 348. 1 hour. Co-requisite: Psy 348. Fall only. Staff.

## Psy 350 Behavioral Statistics

An introduction to experimental design, descriptive and inferential statistics as well as computer statistical analysis. Math 165 strongly recommended. Prerequisite: Psy 348 and Psy 349. Any student substituting Math 207 for Psy 350 must obtain permission through the Psychology Department and must take one additional upper-division elective in Psychology." C " or better in Psy 348.3 hours. Spring only. Bodamer.

## Psy $352 \quad$ Physiological Psychology

An introduction to the basic biological foundations of behavior. This course examines neuroanatomy and neurophysiology, and explores how these principles help explain behavior. Bio 110 or 224 or 240 strongly recommended. Prerequisite: Psy 150 and upper-division standing. 3 hours. KleinKnecht.

## Psy 390 Junior Seminar

An intensive and advanced review of issues central to the discipline of psychology which asks students to reflect critically on knowledge gained in previous psychology classes. Prerequisite: "C" or better in Psy 348/49, Upperdivision standing and instructor's consent. Open to Psychology majors declaring in Junior Year. Spring only. 3 hours. Staff.

## Psy 408 Social Psychology of Intergroup Relations

This course examines the theories and research in the social psychological study of how group membership affects individual's behaviors special attention will be paid to studies of international conflict, race and gender relations. The course is seminar style and will include survey research and class demonstrations. Prerequisite: "C" or better in Psy 308 and upper-division standing (or permission of the instructor). 3 hours. Meets cross-cultural core requirement. Burns-Glover.

## Special Topics in Psychology

Seminar course focusing on topics of special interest to students and faculty, such as Adolescence, Aging, Women and Violence, Personality, Self-Concept, and Intelligence. Prerequisite: Psy 150 and Junior standing and permission of the instructor. May be repeated for credit as topic varies. 3 hours. Staff.

## Psy 425 Basic Clinical Techniques

This class introduces students to various theories of psychotherapy through the use of original writings by the theorists themselves. A disorder-based approach is taken, and students learn specific techniques for specific types of clients and situations. Some self-analysis takes place as a way of exploring principles of interpretation. Prerequisite: Psy 311 (or permission of the instructor). 3 hours. Staff.

## Psy $440 \quad$ Health Psychology \& Behavioral Medicine

Course focuses on the application of psychological theories, principles, and techniques to the prevention, diagnosis, and treatment of health problems. Topics include the role of behavioral and life style variables in illness, procedures for changing health habits and developing healthy life styles, and the utilization of psychological treatment as an adjunct to the medical treatment of health problems. Prerequisite: Psy 352 and upper-division standing (or permission of the instructor). 3 hours. Staff.

## Psy $444 \quad$ Psychobiography

An effort to understand the form and content of artistic work from the vantage point of the artist's life history. Those covered previously have included Sylvia Plath, Picasso, Oscar Wilde, Jackson Pollack, Vladimir Nabokov, Roald Dahl, Jack Kerouac, James Agee, and Truman Capote, among others. Significant use is made of psychological theory as a means of tracing meaningful connections between the life and creative products. Prerequisite: Psy 150 and upper-division standing (or permission of the instructor). 3 hours. Schultz.

## Psy $490 \quad$ Senior Thesis Proposal (499 track)

An intensive writing and research preparation course to be taken by those planning to do Advanced Senior Research (Psy 499), this class emphasizes the selection of an area of interest from which to develop an independent research project. Students formulate, draft, and submit a Senior Thesis Research Proposal. Prerequisite: "C" or better in Psy 350 and 390 and permission of instructor. 3 hours. Fall only. Staff

## Psy 491 Senior Thesis Proposal (non-499 track)

An intensive writing and research preparation course to be taken by those not planning to enroll in Advanced Senior Research (Psy 499). This class emphasizes the selection of an area of interest from which to develop an independent research project. Students formulate, draft, and submit a Research Proposal. Prerequisite "C" or better in Psych 350 and 390, permission of instructor, and pre- or corequisite of any other 400 level Psych class. 3 hours. Spring only. Staff.

## Psy 499 Advanced Senior Research

 A class for select senior students who wish to actualize the thesis proposal completed at the conclusion of Psy 490. Prerequisite: "C" or better in Psy 490 and departmental GPA of 3.25 or better, and overall GPA of 3.00 or better. Students not satisfying these pre-requisites may petition the department for admission to the class. 3 hrs. Spring only. Staff.
# SOCIOLOGY \& ANTHROPOLOGY 

Cheleen Mahar, Chair, Professor of Anthropology<br>Vernon L. Bates, Professor of Sociology<br>Sarah R. Phillips, Associate Professor of Sociology

Byron D. Steiger, Professor of Sociology
Christopher Wilkes, Professor of Sociology
The Department of Sociology and Anthropology offers the following programs: a major in Anthropology and Sociology; a major in Sociology; and an interdisciplinary major in Social Work. In addition to the majors, the Department offers a minor in Sociology and in Anthropology.

The major in Anthropology and Sociology recognizes that both fields share a common philosophical and theoretical history.

As well, both share a concern for the social and cultural conditions of human life. The fundamental aims of the major are to provide students with the analytical perspectives for the systematic understanding of human social and cultural existence and to prepare students for graduate education and professional employment in which cultural diversity and cross-cultural understanding are essential.

The major in Sociology is designed to provide basic knowledge about the development, structure and function of human groups and societies, and relationships between these groups and societies. The program contributes to a liberal arts education, prepares students for graduate training in sociology, and is preparatory for social senvices and other careers.

The interdisciplinary program in Social Work provides general knowledge about human needs and resources, and elementary skills in building counseling relationships. The major is intended to either provide sufficient skills to function at an entry-level position, such as a Public Assistance Case-worker, or to provide the background necessary for entry into graduate study.

## Goals for the Majors

Students who successfully complete one of the majors should have the ability to carry out an independent senior research project and to present that project in a coherent oral and written form to be evaluated by peers and by faculty. Students should also have the ability to carry out similar collaborative projects. It is presumed that these abilities are a foundation for one's life and career. In order to do this students must possess the following:

- an ability to exercise sociological/ anthropological imagination - observing the relationship between individuals and historical, cultural, and social forces;
- an ability to perceive the general in the particular - how one's particular life experiences are shaped by the general categories of class, age, race, ethnicity, gender, religion, and subculture;
- a fundamental understanding of the important theoretical constructs of each discipline;
- a fundamental understanding of the basic scientific methods of the disciplines, both quantitative and qualitative, and an ability to choose the appropriate methodologies for one's work;
- an ability to understand and use data and statistics.


## MAJOR IN ANTHROPOLOGY AND SOCIOLOGY

A major in Anthropology and Sociology must complete the following core courses with a grade of "C-" or better and maintain a 2.0 average in the major. These same standards apply to the minor in Anthropology.

## Requirements

$\begin{array}{ll}\text { Anth } 101 & \begin{array}{l}\text { Introduction to } \\ \text { Anthropology ..................... } 3\end{array}\end{array}$
Anth $301 \quad \begin{aligned} & \text { Research Methods in } \\ & \text { Anthropology, OR }\end{aligned}$
Soc. 300 Methods of Social Research .4
$\begin{array}{ll}\text { Anth } 400 & \begin{array}{l}\text { Transnationalism in a } \\ \text { Postmodern World ............ } 4\end{array}\end{array}$
Anth 494 Senior Research Seminar ... 1
Anth 495 Independent Research .. ..... 3
Soc. 414 Sociological Theory ..... 4
Three of the following courses in Anthropology: 202, 210, 320, 330, 340 ..... 9-10
and three of the following courses in Sociology: $308,366,325,412,413$ ..... 9-10
37 or 38
MINOR IN ANTHROPOLOGY
Requirements
Anth 101 Introduction to Anthropology ..... 3
Anth 301 Research Methods in Anthropology ..... 4
Electives ..... 9
Choose three courses in Anthropology (atleast two must be upper-division courses.)

## MAJOR IN SOCIOLOGY

The Sociology major must complete the following core courses with a grade of "C-" or better and maintain a 2.0 average in the major. These same standards apply to the minor in Sociology and Anthropology.

## Requirements

Soc 101 Introduction to Sociology .. 3
Soc 102 Social Problems ................... 3
Soc 300 Introduction to Social $\begin{aligned} & \text { Research ............................. } 4\end{aligned}$
Soc 301 Social Statistics .................... 4
Soc 414 Sociological Theory ............ 4
Soc 494 Senior Research Seminar ... 1
Soc 495 Independent Research ........ 3
Additional courses in sociology
which must include at least one 400 level course18

Note: Soc 400, 401, 470, 471, and 472 can not be used for the Sociology major.

Strongly recommended for a sociology major: Hist 101, 102; Phil 101; Econ 101, 102.

## MINOR IN SOCIOLOGY

## Requirements

$\begin{array}{lr}\text { Soc } 101 & \text { Introduction to Sociology .. } 3 \\ \text { Soc } 102 & \text { Social Problems .................... } 3 \\ \text { Electives .............................................. } 15\end{array}$
Choose five or more 3-hour courses in sociology (at least four of which must be upper-division.)
Note: Soc 400, 401, 470, 471 and 472 can not be used for the Sociology minor.

Any student interested in a Sociology minor should consult with a faculty member in the Sociology Department before the end of the sophomore year.

## MAJOR IN SOCIAL WORK

The Social Work major must complete the following core courses with a grade of "C-" or better and maintain a 2.0 average in the major.

## Requirements

$\begin{array}{ll}\text { Psy } 150 & \begin{array}{l}\text { Introduction to } \\ \text { Psychology .......................... } 3\end{array}\end{array}$
Psy 180, Psy 318 or Psy 340
(a Developmental Psychology course) .... 3
Psy 311 Abnormal Psychology ........ 3
Psy $425 \quad \begin{aligned} & \text { Basic Clinic and } \\ & \text { Counseling Techniques ...... } 3\end{aligned}$
Either Soc 101 or Soc 102 .......................... 3
Soc 101 Introduction to Sociology
Soc 102 Social Problems
Soc 299 Field Experience .................. 2
Either Anth 301 or Soc 300 ......................... 4
$\begin{array}{ll}\text { Anth 301 } & \begin{array}{l}\text { Research Methods in } \\ \text { Anthropology }\end{array} \\ \text { Soc 300 } & \text { Intro to Social Research } \\ \text { Soc 301 } & \text { Social Statistics .................. } 4\end{array}$
Soc 400 Micro Social Work Practice ...................... 4
Soc 401 Macro Social Work Practice .4

Soc 470 and either Soc 471 or Soc 472:

Soc $470 \quad$| Social Work |
| :--- |
| Research Seminar ................ 1 |

Soc $471 \quad$ Evaluation Research for Social Work .3
$\begin{array}{ll}\text { Soc } 472 & \text { Social Work } \\ & \text { Internship ...................... 4-14 }\end{array}$
Two of the following courses .................. 6
Soc 304 Criminology
Soc 308 Race Relations
Soc 309 Sociology of the Family
Soc 311 Delinquency
Soc 325 Hispanics in the U.S.
Soc 321 Sociology of the City
Soc $317 \quad$ Gender and Sexuality
Soc 366 Deviance

## COURSE DESCRIPTIONS

## Anthropology (Anth)

## Anth 101 Introduction to Anthropology

The character of culture and the nature of social behavior as developed through the anthropological study of contemporary peoples.
3 hours. Mahar. Annually.

## Anth 202 Film, Text and Culture

This course examines the use of film, photography and text as data collection methods and representations for ethnographic research. Methodological and epistemological issues are explored in a comparison of ethnographic documentaries. As part of the course requirement students are expected to complete short observational and photographic projects. Prerequisite: Anth 101 or Soc 101 or 102. 3 hours. Mahar.

## Anth 210 Mesoamerican Cultures

A survey of early Mayan and Aztec societies, how they fared under Spanish Colonial rule and their contemporary lives. The course focuses upon indigenous peoples, examining their articulation in contemporary states in relation to ethnic consciousness and cultural processes. Prerequisite: Anth 101 or Soc 101 or 102 or consent of instructor 3 hours. Mahar. Biennially. Meets cross-cultural requirement.

## Anth 301 Research Methods in Anthropology

Helps students critically evaluate anthropological methods and their own fieldwork strategies. Explores ethnographic fieldwork and methods through an analysis of the nature of social practice as it is reflected in the anthropological literature. Ethnographic methods include participant observation, survey skills, interviewing skills, careful attention to language and the ethical dimensions of research. Students have the opportunity to apply these methods in research projects in the local community. Prerequisite: 6 hours of Anthropology or Sociology or consent of instructor. 4 hours. Mahar. Biennially.

## Anth 320 South American Traditional Societies

Ethnographic studies of the social, economic and political forms of small-scale non industrial societies. This class looks at a variety of cultural systems from the Amazon Basin to the Andes, during historical and contemporary times. Prerequisite: 6 hours of Anthropology or Sociology or consent of instructor. 3 hours. Mahar. Biennially. Meets cross-cultural requirements.

## Anth 330 Gender in Cross-cultural Perspective

This class investigates the notion of gender as it has been constituted in different times and places. The course examines theoretical developments in the anthropology of gender and explores gender cross-culturally, using examples from a wide range of societies, past and present. Prerequisite: Anth 101 or Soc 101 or 102 or consent of instructor. Prerequisite: 6 hours of Anthropology or Sociology or consent of instructor. 3 hours. Mahar. Biennially. Meets cross-cultural requirement.

Anth 340 Symbolism, Myth and Ritual Anthropological approaches to the study of myth, ritual and symbols which focus upon cultural meaning. Examines the nature of myth and ritual in a variety of cultures. Prerequisite: Anth 201 or 202 or Soc 413 or consent of instructor. 3 hours. Mahar. Biennially. Meets cross-cultural requirement.

## Anth 400 Transnationalism in a Post Modern World

Ethnographic approaches to the study of an increasingly mobile and interconnected world. Topics include migration, identity, transnational communities; tourism and cultural self-representation; developments in mass media and communications; and consumerism and international markets. Prerequisite: 9 hours of Anthropology or consent of instructor. 3 hours. Mahar. Biennially. Meets cross-cultural requirements.

Anth 494 Senior Research Seminar
The focus is to assist students in selecting an area of interest from which to draw an independent research project, to do an initial literature review, to develop a theoretical framework, and to develop a research methodology for the senior research project. Prerequisite: 19 hrs. of Anthropology or Sociology including Anth 301 or Soc 300.1 hour. Annually in the Fall. Pass/No Pass. Staff

## Anth 495 Independent Research

Student-conducted individual research/theoretical project. Prerequisite: 20 hours of Anthropology or Sociology including Anth 494. 3 hours. Faculty supervised.

## Sociology (Soc)

## Soc 101 Introduction to Sociology

Provides an intensive introduction to human behavior in groups including a study of family, education, religion, government, ecology, deviancy. Basic concepts and terminology are emphasized. 3 hours. Staff.

## Soc 102 Social Problems

Study of the nature, scope, causes, effects alternatives and solutions to the major problems in society, such as poverty, crime, and health. 3 hours. Staff.

## Soc $299 \quad$ Field Experience

A course to introduce the student to social service occupations. Placement is made in agencies such as youth services, counseling, and welfare services. Paper required. Instructor's consent required at least two weeks prior to the beginning of the course. Graded P/N. 2 hours. Course may be repeated once for credit. Staff.

## Soc 300 Introduction to Social Research

Analysis and application of the logic and methods of science in sociology is studied. The student learns by doing a research project that goes through all stages: theory, hypothesis, operationalization, research design, population/ sampling, data collection, and analysis. Prerequisite: Soc 101 or 102. 4 hours. Biennially. Phillips.

## Soc 301 Social Statistics

Introductory statistics course for students in the social sciences. The emphasis of the course will be on understanding how social scientists use numerical data to understand social phenomena, and how to use and interpret statistical measures and techniques commonly reported in the social sciences literature. Prerequisite: Math 122 or consent of instructor. 4 hours. Phillips.

## Soc $304 \quad$ Criminology

An analysis of criminal behavior from theft to homicide, and society's reaction to it. Specific areas covered include: the defining of criminal behavior, the varieties of crime, the causes of crime, and the criminal justice system from arrest to imprisonment. Prerequisite: Soc 101 or 102. 3 hours. Steiger.

## Soc 308 Race Relations

The primary emphasis is on the relationships between dominant (majority) and subordinate (minority) racial and ethnic groups in the United States. Designed to enable the student to understand the principles and processes which shape the patterns of relations among racial, ethnic, and other groups in society. Meets cross-cultural requirement. Prerequisite: Soc 101 or 102. 3 hours. Bates.

## Soc 309 Sociology of the Family

The primary emphasis is on the relationship between the familial institution and the society in which it is being studied. Attention is given to trans-historical and cross-cultural data, social change, definitions of the family, socialization, courtship, marriage, divorce, sex roles, sexuality, socio-economic forces, alternative forms, and the future. Prerequisite: Soc 101 or 102. 3 hours. Bates.

## Soc 311 Juvenile Delinquency

An analysis of the definition of delinquency, its history, causes, societal reaction, and treatment and prevention. Prerequisite: Soc 101 or 102. 3 hours. Phillips.

## PACS 313 The Sociology of Violence

(See PACS in section on Special Academic programs.) Counts toward the major in Sociology. 3 hours. Bates. Biennially.

## Soc 315 Equality and Inequality

The course analyzes inequalities of wealth, power, and prestige in societies. The sources and consequence of inequality as well as the moral issues involved are emphasized. Implications for social mobility for the individual or for social groups are analyzed. Prerequisite: Soc 101 or 102. 3 hours. Steiger. Biennially.

## Soc $317 \quad$ Gender and Sexuality

An introduction to the theories and methods used by sociologists to study masculinity and femininity, the social and historical construction of sexuality, love, and romance. Discussion includes the sociology of homosexuality, bisexuality, and heterosexuality, as well as issues of HIV/AIDS, teen pregnancy, prostitution, pornography, sexual harassment and rape in the United States. Prerequisite: Soc 101 or 102. 3 hours. Biennially. Phillips.

## Soc $319 \quad$ Sociology of Medicine

The course analyzes the social and demographic variables affecting health, morbidity, and mortality rates. It also examines the social roles in illness (e.g., doctor and patient): their definitions and consequences. Attention is given to the study of medical care institutions and their systems and structures. The relations between social policy and health are debated. Prerequisite: Soc 101. 3 hours. Steiger. Biennially.

## Soc $321 \quad$ Sociology of the City

An exploration of the modern United States city. We will use Portland as a "laboratory" for understanding the evolution of cities, how modern cities "work," the problems and successes of urban areas. Prerequisite: Soc 101 or 102. 3 hours. Phillips.

## Soc $325 \quad$ Hispanics in the U.S.

A study of the history, literature, culture, and demographics of Hispanic groups in the U.S. An interdisciplinary approach will be taken toward placing in perspective the major political, social, and educational issues facing these groups. Students will simultaneously be engaged in a field experience in the Hispanic community. Prerequisite: Spanish 102. Meets cross-cultural requirement. 4 hours. Bates/Phillips

## Soc 366 Deviance

An analysis of definitions of deviance, causes of deviance, and societal reaction to deviance. The relationship between deviant behavior and social justice will be explored. Topics include drug use, mental disorder, the sex industry, suicide, sexual preference, crime and corporate crime. Prerequisite: Soc 101 or 102. 3 hours. Bates.

Soc $400 \quad$ Micro Social Work Practice
This course focuses on the change process at the three levels of social work practice (individual, family and group). Students will acquire specific skills which will assist them in assessing, contacting, working with and terminating some clients. Prerequisite: Soc 299 and Junior standing. 4 hours. Staff.

## Soc 401 Macro Social Work Practice

This course provides an overview of the major influences on the service delivery system, including social work values and ethics. The student will trace the evolution of social welfare and American social policy in a multicultural context. Macro intervention and the change process at three levels of social work practice (organizations, community, and state and federal public policy) will be the focus of the course. Prerequisite: Soc 299 and Junior standing 4 hours. Staff.

## Soc 407 Collective Behavior and Social Movements

Description and analysis of human behavior in collectives. Concentration focuses on the dynamics of rumor, panics, crowds, mass behavior, mass communication, fashions, fads, public opinion, and social movements. Prerequisite: 9 hours of Sociology. Junior standing 4 hours. Bates. Biennially.

## Soc 411 Social Change

Review and critique of theories of social change. Analysis of factors causing change and the mechanisms by which social change comes about. Emphasis is placed on understanding the 20th century. Prerequisite: 9 hours of Sociology. 3 of the 9 maybe taken in Anthropology. Junior standing. 3 hours. Steiger. Biennially.

## Soc 412 Social Interaction

A study of the interaction process as the central element in human social life, the primary occasion for communication, and the origin of both social structure and the individual human identity. Attention is given to symbolic comтиnication, interaction, socialization, role theory, self-concept, deviance. Prerequisite: 9 hours of Sociology. 3 of the 9 may be taken in Anthropology. Junior standing. 3 hours. Bates. Biennially.

## Soc 413 Sociology of Religion

A sociological analysis of religious belief, ritual, experience, and organization. Issues to be considered include the social origins of religion, its significance as a social force and as a form of social control, and the relation between religious institutions and the larger society of which they are a part. Prerequisite: 9 semester hours of Sociology. 3 of the 9 may be taken in Anthropology. Junior Standing. 3 hours. Bates. Biennially.

## Soc $414 \quad$ Sociological Theory

The origin and development of sociology are analyzed through the examination of major historical theorists and of contemporary schools of sociological thought. Prerequisite: 9 hours of Sociology. Junior standing 4 hours. Steiger. Biennially.

## Soc $450 \quad$ Special Topics in Sociology

Seminar or tutorial course focusing on topics of interest to students and faculty. This course may be repeated for credit when topics vary. 3 hours. Prerequisite: Sociology 101 or 102 and Junior Standing.

## Soc $470 \quad$ Social Work Research Seminar

The focus is to assist students in selecting an area of interest from which to draw an independent evaluation research project for social work. Students will do an initial literature review to develop a theoretical framework and to develop a research methodology. This course is to be taken before or concurrently with Soc 471 or Soc 472. Prerequisite: 19 hours in Social Work required courses including Soc 300 or Anth 301 and Soc 301. 1 hour. Staff.

## Soc 471 Evaluation Research for Social Work

Social work majors may choose, as one alternative, to engage in an evaluation research project-evaluating a social service agency using social science research methods-to fulfill their Social Work major requirements. Prerequisite: 19 hours in Social work required courses including Soc 300 or Anth 301, Soc 301 and Soc 470.3 hours. Staff.

## Soc 472 Social Work Internship

An internship in a social service agency may be chosen as one alternative to fulfill the requirement for social work majors. Interns will be required to meet with the instructor, with other social work interns, and with those students doing evaluation research, in a seminar setting
(Soc 470) to discuss their work in this field placement. Prerequisite: 2.75 G.P.A., 19 hours in Social Work required courses including Soc 300 or Anth 301 and Soc 301, and Soc 470. 4-14 hours. Staff.

## Soc 494 Senior Research Seminar

The focus is to assist students in selecting an areas of interest from which to draw an independent research project, to do an initial literature review, to develop a theoretical framework, and to develop a research methodology for the senior research project. Prerequisite: 19 hrs of Sociology, including Soc 300 and Soc. 301. 1 hour. Staff. Annually in the Fall. Pass/No Pass. Staff.

## Soc 495 Independent Research

Student-conducted individual research/theoretical project. Prerequisite: 20 hours of Sociology including Soc. 494. 3 hours. Faculty supervised. Special topics in sociology taught periodically at faculty discretion:

## Soc 255 Sociology of Humor

Humor and laughter play a part in all societies. This course examines various theories of humor (including Aristotle, Darwin, and Freud) and analyzes the contributions that the sociological perspective can add to our understanding of the functions and roles humor plays in society. Prerequisite: Any Soc or Anthro course. 3 hours. Steiger.

## Soc 255 Sociology through Science Fiction

Sociology is concerned with understanding the culture and organization of societies. Sociology is concerned with norms, roles, values and institutions (e.g., economics, family, political). The course will develop sociological thinking through the analysis of selected science fiction novels, which have to develop fully realized alternative worlds. Prerequisite: Any Soc or Anthro course.

## Soc 255 The Sociology of HIV/AIDS

An examination of the epidemiologic, political, and social history of HIV and AIDS in the United States. The social construction of AIDS is studied, as is the social response to AIDS and people living with AIDS. We will examine the ethical issues raised by testing, reporting, and treatment policies. Psy 350, 450 and Psy 490 and permission of the instructor. Spring only. Phillips.

## THEATRE

Edwin S. Collier, Chair, Associate Professor
Greta Christensen, Costume, Make-up Instructor*

David Thorpe, Technical Director*
Rebecca Campbell, Instructor of Dance
Barbara Stalick, Instructor of Dance*
*adjunct faculty
At Pacific, the theatre experience is offered to all students regardless of background or major. As the most collaborative of the arts, theatre blends performance with literature, history and the visual arts and provides practical, technical and organizational training.

For those interested in professional theatre or teaching, the curriculum provides a well-rounded foundation for graduate school or the professional world. Students in theatre-related fields such as the performance arts of dance and music, or literature, television, film, and advertising, may enroll in theatre courses to develop skills which can best be practiced in theatre productions. Dual majors are often advised.

At Pacific, students are encouraged to become involved. Acting, directing, scenic and costume construction, design, playwriting, lighting and makeup are but a few of the variety of activities available. We invite you to participate.

## Theatre Department Goals

Through theatrical production and academic study the Pacific Theater Department strives to provide students with:

1. A broad spectrum of high-quality theatrical production experiences

- Appreciation for the Theatre Arts; plays, dance, and musical theatre.
- Human interaction and social issues from historical and foreign cultures.
- Dramatic literature: serious drama; historical and social drama; comedy.
- Theatrical spectacle.


## 2. Theatrical production:

- Performance: acting; dance musical theatre; improv and public speaking.
- Production management.
- Directing and producing.
- Design: scenography, costume, audio and lighting.
- Playwriting.

3. Real-world work experience for careers after college:

- Team and small group projects.
- Practical problem solving.
- Management, budget and project organization.
- Personal and group communication.
- Aesthetic decision making
- Time and stress management
- Publicity and audience development

4. Preparation for careers in television, film, theatre, advertising, arts management, public relations, etc.
5. Preparation for graduate study and careers in teaching.

## MAJOR IN THEATRE

## Requirements

## Core courses

Thea 110 Acting I: Fundamentals ..... 3
Thea 120 Technical Theatre ................ 3
$\begin{array}{ll}\text { Thea } 150 & \begin{array}{l}\text { Theatre Company: } \\ \text { Performance ....................... } 1\end{array}\end{array}$
Thea 151 Theatre Company: Technical and Organizational .............. 1
Thea 215 Intro to Scene Design .......... 3
Thea 225 Makeup ............................... 1
Thea 330 Directing I: Fundamentals 3
Thea 350 Theatre History or Thea 360 Modern Theatre .. 3
Thea 495 Thesis (Directing, play writing, choreography, design or performance Learning Contract required)

| Arts Electives <br> (6 hours from the following) $\qquad$ |  |
| :---: | :---: |
| Art | 110, 210, 218, 226, 235, 270 |
| MedA | Television, film or audio production |
| Danc | $\begin{aligned} & 105,121,126,205,221,400 \\ & \text { (all 1 hour) } \end{aligned}$ |
| Mus | 101-102, 111, 112, 211, 212 |
| Upper-Di (9 addition chosen fro others with Theatre A | ion Electives hours [6 in Theatre] the following or the approval of isor) $\qquad$ |
| Art | 310,326 |
| MedA | Television, film or audio production upper division classes |
| Danc | 400 |
| Engl | 310, 323, 340 |
| Fren | 304 Drama |
| Mus | 321-325 History |
| Span | 304 Drama |
| Thea | $310,325,360,370$ <br> or approved individual Study Topics |
|  | 36-39 |
| MINOR IN THEATRE |  |
| Requirements |  |
| Thea 110 | Acting I ............................. 3 |
| Thea 150 | Theatre Company: <br> Performance ( $\mathrm{P} / \mathrm{N}$ ) ............. 1 |
| Thea 151 | Theatre Company: <br> Technical and <br> Organizational ( $\mathrm{P} / \mathrm{N}$ ) ......... 1 |
| Thea 120 | Technical Theatre .............. 3 |
| Thea 330 | Directing I: Fundamentals . 3 |
| Thea 350 | Theatre History ................. 3 |
| Electives: Six upper-division hours in <br> Theatre Arts in consultation with the <br> Theatre Director $\qquad$ |  |

## COURSE DESCRIPTIONS

## Thea 101 The Theatre Experience

An introductory course for the curious - those with little or no background in theatre. Students write, rehearse and produce plays in class. Attend and critique 4-5 plays during term. Not required for theatre majors. 3 hours. Collier. Offered in even numbered years.

## Thea 110 Acting I: Fundamentals

Basic Method technique and vocabulary. Students who hope to act in plays encouraged to take course Freshman or Sophomore years. (Advanced beginning acting students are encouraged to enroll in Thea 210) 3 hours. Collier.

## Thea 120 Technical Theatre

An introductory practicum to technical Theatre: scenic construction, painting, lighting, costume and audio production. A minimum of 35 lab hours will include assignments on construction and running crews for department productions. 3 hours. Christensen/Thorpe.

## Thea 150 Theatre Company Performance

Active participation in a dramatic production as an actor or performer. 1 hour, Collier. Graded P/NP. Offered each semester. May be taken 4 times. Must audition and be cast in a play to enroll.

## Thea 151 Theatre Company Technical and Organizational

Active participation in a dramatic production or project as a production assistant or technician. 1 hour. Thorpe. Offered each semester. May be taken 4 times.

## Thea 210 Acting II: Intermediate

Intensive scene work and an introduction to classical and style acting, dialect and film acting technique based on fundamentals and vocabulary from Acting I. Advanced beginning actors with considerable prior experience and basic understanding of method acting may enroll with instructor's consent. Prerequisite: Thea 110. 3 hours. Collier. Offered in even numbered years.

## Thea 215 Intro to Scene Design

Introduction to scenic design for the stage, with emphasis on concepts of design, script analysis, lighting, drawing, mechanical and computer design and model building. 3 hours. Collier. Offered in odd-numbered years or by arrangement in connection with a specific production.

## Thea 225 Makeup

The theoretical and practical application of makeup to the theatre and media. Students are expected to purchase their own makeup supplies. 1 hour. Christensen. Offered spring semester.

## Thea 270/370 Theatre in London

An experiential two-week exploration of theatre in England, during which students attend and critique at least 9 professional plays, meet with British theatre professionals and tour theatre facilities in London and Stratford-upon-Avon. Extra cost for airfare, tickets and lodging. (Approximately $\$ 1,875$. See schedule for current rate) Offered Winter III. 3 hours. Collier.

## Thea 310 Acting III: Style

Introduction to style acting through research and scene work from classic drama: Greek play, Comedia del'Arte, Elizabethan (Shakespeare) 17th century French and Restoration, 19th century melodrama. 3 hours. Collier. Offered in even numbered years.

## Thea 325 Directing Performers for the Camera

An exploration of the relationship between directors and performers in television and film production. Rehearsal and production of short dramatic scenes utilizing video tape. Prerequisite: A basic working knowledge of Method Acting, television production experience, or consent of instructor. 3 hours. Collier. Offered in odd-numbered years.

## Thea 330 Directing

Lecture-laboratory course exploring the director's art: script analysis, production design, casting, rehearsal and production. Prerequisite: Thea 110 and 220 or consent of instructor. Limited to a small number of students committed to the demanding task of producing one-act plays during a regular academic term. 3 hours. Collier. Offered yearly or by arrangement in connection with a specific project.

## Thea 350 Theatre History

An exploration of theatre production from Greece to Broadway, including comparisons with film and TV drama. Attend and critique 4-5 plays during term. 3 hours. Collier. Offered in odd-numbered years.

## Thea 360 Modern Theatre

Development of theatre from 1875, to the present with special emphasis on the influential practitioners and styles of the period. Attend and critique 3-5 plays during the term. 3 hours. Collier. Offered in even-numbered years.

## Thea 495 Senior Thesis

Intensive practicum arranged with the Director of Theatre. 3-6 hours. Most often a directing assignment, but project may be in any of the following disciplines:

- Directing
- Playwriting
- Performance
- Choreography
- Design: Costume or Scenic Video Drama


## DANCE

All dance classes count toward Academic Core requirements in Arts, and may be repeated for credit. Most are graded P/NP.

## Danc 105 Ballet I

Classical ballet technique beginning at basic level. Graded P/NP. May be repeated for credit. 1 hour. Stalick.

## Danc 121 Jazz Dance I

Basic Jazz dance for beginners. Graded P/NP. May be repeated for credit. 1 hour. Campbell.

## Danc 126 Modern Dance I

Exploration of basic concepts of dance movement - space, time, design, expression - and appropriate techniques. Graded P/NP. May be repeated for credit. 1 hour. Campbell.

## Danc 205 Intermediate Ballet

Continuation of ballet technique introduced in Danc 105. Prerequisite: Danc 105 or consent of instructor. Graded P/NP. May be repeated for credit. 1 hour. Stalick.

## Danc 221 Jazz Dance II

Continuation development of techniques learned in Danc 121. Prerequisite: Danc 121 or consent of instructor. Graded P/NP. May be repeated for credit. 1 hour. Campbell.

## Danc 400 Dance Composition and Performance

Choreographic and composition skills. Exploration of dance technique and choreography in preparation for performance. Prerequisite: Danc 121,126, and 221; or consent of instructor. May be repeated for credit. 2 hours. Campbell

## WORLD <br> LANGUAGES \& LITERATURES

Naoya Fujita, Chair, Associate Professor of Japanese
Susan U. Cabello, Professor of Spanish
Nancy Christoph, Associate Professor of Spanish

Mingfen Cui, Instructor of Chinese
Lorely French, Professor of German
Sandra García, Instructor of Japanese*
Kazuko Ikeda, Associate Professor of Japanese
Gabriella Ricciardi, Assistant Professor of French and Spanish

Elena Rodríguez, Instructor of Spanish
Victor Rodríguez, Associate Professor of Spanish

Sara Steinert Borella, Associate Professor of French

Mariana Valenzuela, Instructor of Spanish

\author{

* indicates part-time
}

The Department of World Languages and Literatures seeks to provide the general student with awareness of and sensitivity toward the cultural and linguistic diversity of an increasingly interconnected world. For students specializing in language study, the M odern Languages curriculum teaches proficiency in speaking, writing, and comprehending a modern language. M ajors spend a semester or a year in study abroad. The curriculum is designed to ensure mastery of the languages studied through intensive conversational training.

The faculty of the Department is diverse and international. There are ten full-time faculty members and two part-time members. Six languages are represented in the curriculum: Chinese, French, German, Italian, Japanese, and Spanish. All the members of the faculty carry out research or creative writing projects, publish regularly, and participate actively in professional organizations.

The Modern Languages major student may concentrate in Chinese, French, German, Japanese, or Spanish as a primary language. Majors are required to complete 12 semester hours in an accredited program outside the United States, offered in the language in which the student is specializing. Students may also select a major in Japanese or Spanish or a major in French or German Studies. Pacific students may apply their financial aid awards to foreign study undertaken through the Study Abroad program of the department. (For more information on studying abroad, see the appropriate section in this catalog.)

All courses in the department are open to non-majors having the appropriate prerequisites. Students are invited to pursue their area of interest within the framew ork of departmental offerings.

For information about language courses, the major, or the Study Abroad program, contact Professor Naoya Fujita.

## Goals for Majors in the Department of World Languages and Literatures

The department seeks to graduate majors who:

- embody the essence of liberal arts values;
- have a high level of proficiency in all four skill areas of the language of concentration: listening, speaking, reading, and writing;
- have participated in at least a semester of study abroad and are sensitive to cultural differences;
- have some knowledge of the major literary and intellectual trends of the culture of concentration;
- are acquainted with the different modes of research within their field;
- have conducted original research and written a senior thesis in the language of specialization or have completed a capstone project;
- are prepared to pursue graduate / professional studies or immediately enter the job market able to seek employment in a broad spectrum of career possibilities.


## MAJOR IN MODERN LANGUAGES

## Requirements

Primary Language (Chinese, French, German, Japanese, Spanish) ..... 30
Lower Division ..... 12
Upper-Division (at Pacific) ..... 6
Upper-Division (overseas) ..... 12
Secondary Language(s) ..... 12
English Literature or
Linguistics (300 or above) ..... 3
45

Students will enter the sequence at a level appropriate to their previous preparation and may be exempt from up to 12 hours of lower-division credit.
International students, who have taken ESL classes at the university level and who want to major in Modern Languages, may be exempted from the 12 credits of a secondary foreign language.

## MAJOR IN JAPANESE

## Requirements

Japn 101-102 ................................................ 6
Japn 201-202 ..... 6
Upper-Division hours earned overseas ..... 12-16
4 Upper-Division classes at Pacific, at lease two of which must be numbered 400 ..... 12
Japn 490 Senior Capstone ..... 3
One course from the following list:Art 274, Hist 111, Hist 112, Hist 211,Hist 315, Hum 205, Phil 305, Pols 344 .. 3-4
42-47

Students will enter the sequence at a level appropriate to their previous preparation and may be exempt from up to 12 hours of lower-division credit.

## MAJOR IN SPANISH

## Requirements

Span 101-102 ..... 6
Span 201-202 ..... 6
2 classes numbered 300 at Pacific ..... 6
(one of these classes may be waived, if student studies abroad for the whole year)
1 class from the following list:
Pols 332, Pols 336, Pols/ History 240;Hist 207; Anth 210, Anth 3203
Upper-Division hours earned overseas ..... 12-16
*Span/Educ 466 does not count)
2 classes numbered 400 at Pacific ..... 6
Span 485 Seminar in Hispanic Studies ..... 3
42-46

Students will enter the sequence at a level appropriate to their previous preparation and may be exempt from up to 12 hours of lower-division credit.

## MAJOR IN FRENCH STUDIES

Rationale: To provide a viable major that emphasizes France and the Frenchspeaking world.

## Requirements

Fren 101-102 ............................................. 6
Fren 201-202 ............................................. 6
Upper-Division hours earned overseas
in a French-speaking country .......... 12-16
2 French classes
numbered 300 at Pacific ............................ 6
1 French class
numbered 400 at Pacific ............................ 3
3 classes from the following list of related classes: (Must include at least 6 credit hours taken at Pacific)9-12

Anthropology:

Anth 340 Symbolism, Myth
and Ritual3
Anth 400 Transnationalism in a Postmodern World ..... 3

| Art: |  |
| :--- | :--- |
| Art 271 | History of Western Art II: <br> Renaissance through <br> Impressionism .................. 3 |
| Art 272 | History of Western Art III: <br> Post Impressionism <br> Through 20th Century ....... 3 |
| English/International Studies: |  |
| Eng1 332 | Introduction to <br> Linguistics ........................... 3 |
|  | OR |
| Studies in Criticism |  |
| and Theory .......................... 3 |  |

## MAJOR IN GERMAN STUDIES

> Rationale: To provide a viable major that emphasizes Germany and the Germanspeaking world.

## Requirements

Ger 101-102 ................................................ 6
Ger 201-202 .6
Upper-Division hours earned overseas in a German-speaking country ..... 12-16
2 German classes numbered 300 at Pacific ..... 6
1 German class
numbered 400 at Pacific ..... 3
3 classes from the following list of related classes: ..... 9-12
(Must include at least 6 credit hours taken at Pacific)
English/International Studies:
Engl 332 Introduction to Linguistics 3
OR Engl 343 Studies in Criticism and Theory ..... 3
IS 201 Intercultural Communications ..... 3
Engl 220 Literature and HumanConcerns: TheHolocaust History:
Hist 232 The Holocaust ..... 3
Hist 235 Europe Since 1945 ..... 3
Hist 301 The Medieval World: 400-1500 ..... 3
Hist 302 Renaissance, Reformation, Revolt: 1500-18003
Hist 335 Era of World War I ..... 4
Hist 401 Charlemagne and his Era .....  3
Media Arts:
MedA 401 Film Topics* ..... 3
Music:
Mus 322 Music History: 1585-1809 .. 3
Mus 323 Music History: 1809-1918 .. 3Mus 324 Music History: The Twenti-eth Century 3

## Philosophy:

| Phil 208 | Late Modern Philosophy |
| :--- | :--- |
|  | 1750-1900 ............................ 3 |

Phil 403 Twentieth Century Philosophy
Phil 412 Major Philosophers* ........... 4
Phil 420 Seminar in Philosophy* ..... 4 (*will depend on topic)
Note: Check individual departments for course descriptions, prerequisites, and course schedules for semesters offered.
Ger494/495 Thesis, normally written in German (2 credits/semester) 4

## MINORS IN MODERN LANGUAGES

Students interested in a minor are urged to consult with the professor of the language they wish to pursue.

## Requirements

## Chinese:

Chin 101-102 Introduction to Chinese Language
and Culture .......................... 6
Chin 201-202 Intermediate Chinese ......... 6
Upper-Division work in Chinese ............. 6

## French:

Fren 101-102 Introduction to French
Language and Culture ....... 6
Fren 201-202 Intermediate French ........... 6
Upper-Division work in French ............... 6

## German:

Ger 101-102 Introduction to German Language and Culture6
Ger 201-202 German Conversation and Grammar Review ..... 6
Upper-Division work in German ..... 6

## Japanese:

Japn 101-102 Introduction to

Japanese Language
and Culture ........................... 6
Japn 201-202 Intermediate Japanese ..... 6
Upper-Division work in Japanese ..... 618
Spanish:

Span 101-102 Introduction to Spanish Language and Culture6
Span 201-202 Intermediate Spanish ..... 6
Upper-Division work in Spanish ..... 6

Students who enter with previous foreign language training may be exempt from a maximum of 6 hours of the minor requirement. Students entering the sequence at the 301 level will complete a minimum of 12 hours selected from upper-division offerings.

## MINOR IN SPANISH FOR ELEMENTARY TEACHERS

Proficiency level of Spanish 202 required ..... 6
Span/Ed 465 Spanish in the Elementary School ..... 4
Span/Ed 466 Mexico: A Cultural Mosaic ... .....  4
Hum 306 OR 325 (Latino Fiction or Hispanic in U.S.) ..... 3/4
Span/Ed Practicum in Tapalpa, Mexico .. 3

20-21

5th year/MAT students can student teach in Mexico for 3 of their 18 weeks in the schools.
(The above Spanish courses may not replace Spanish 401, 402, 411, 412 in the Spanish major.)

## COURSE DESCRIPTIONS

Teaching Languages<br>World Languages (WorL)

WorL 301-302 Mentoring in Language Teaching

Each student serves as a mentor in one section of a beginning language class (101 and 102 classes in Chinese, French, German, Japanese, Latin, and Spanish). Mentors attend all three of the regular sessions of the class, which will be taught by the professor. Mentors are responsible for facilitating the activities for the fourth hour. They do not participate in the evaluation of students, except to take attendance during the fourth hour. The mentor meets once a week with the supervising professor in the language to develop activities that build oral proficiency, grammatical accuracy, and cultural understanding of the language. Mentors also meet as a group with language faculty to discuss pedagogical issues associated with language instruction. Mentors are selected by an application process in the spring. Prerequisite: consent of instructor. 3 hours. Graded P/NP. Fujita.

## WorL 430 Methods of Teaching Foreign Languages

Theoretical and practical considerations in the teaching of foreign languages at the elementary and secondary school levels. Required of all who are working for certification as language teachers. Prerequisite: consent of the instructor. 3 hours. Staff. (G).

## WORLD LANGUAGES \& LITERATURES

## Chinese (Chin)

## Chin 101-102 Introduction to Chinese Language and Culture

The beginning course is intended to give training in the basic listening and reading of Chinese (Mandarin). Introduction of Chinese characters and presentation of the cultural behaviors that influence language usage. 3 hours each semester. Cui.

## Chin 201-202 Intermediate Chinese

The intermediate course is intended for expansion of conversational skills, reading practice, and grammatical constructions. Development of writing skills. Emphasis on effective spoken communication and reading practice. Prerequisite: Chin 102 or equivalent proficiency. 3 hours each semester. Cui.

Chin 301 Communicating in Chinese
Development of communicative competence in Chinese with emphasis on conversational skill. Application of cultural awareness in various communication situations. Prerequisite: Chinese 202 or equivalent proficiency. Taught in Chinese. 3 hours. Cui.

## Chin 305 Chinese Reading and Writing

Study of Chinese writing and the enhancement of reading skills. Acquisition of more vocabulary to facilitate Chinese reading and writing. Cultural and social influences on expressions and styles will be discussed. Taught in Chinese. 3 hours. Cui.

## Chin 401 Selected Chinese Short Stories

This course will focus on selected topics in contemporary Chinese short stories, which include such themes as nature and humans, life and death, love and loyalty, family and friends, and self and public. Students will understand Chinese values, beliefs, and norms through extensive analysis of these topics. The course also provides the opportunity to enhance Chinese reading skills by studying various styles of the stories. Taught in Chinese. Prerequisite: Chinese 301 and 305, or equivalent proficiency. 3 hours. Meets Humanities core requirement. Cui. Offered alternate years.

## Chin 485 Seminar in Chinese Studies

An in-depth study of various cultural issues as reflected in the literature, history, politics, society, films $\mathcal{E}$ television, art $\mathcal{E}$ music, and sports $\mathcal{E}$ leisure of China. Taught in Chinese. 3 hours. May be repeated once for credit when content varies. Prerequisite: consent of instructor. Cui. Offered alternate years.

## Chin 494/495 Senior Thesis in Chinese Studies

This course is designed to assist senior students who are writing a thesis for a major in Chinese Studies. Students will receive direction in completing their research proposal and help in conducting and writing their senior thesis. These are student-conducted individual research theses. Students take 494 and 495 in consecutive semesters. Prerequisite: Senior standing and study abroad. 2 hours per semester. Cui.

## French (Fren)

## Fren 101-102 Introduction to French Language and Culture

The beginning course is intended to give training in the basic patterns and structures of French. Conversation and reading related to the cultures of French-speaking areas. Classroom work is supplemented by laboratory experience. 3 hours each semester. Steinert Borella, Ricciardi.

## Fren 201-202 Intermediate French

Expansion of conversational skills and continuation of reading practice. Use of periodical and literary sources and audio-visual aids. Prerequisite: Fren 102 or an equivalent proficiency. 3 hours each semester. Steinert Borella, Ricciardi.

## Fren 265/365 French in the Elementary School

This course is an introduction to the principles of second language acquisition and instruction in elementary school programs. Students will plan and implement lessons for after-school French program involving first through fourth graders. Class includes weekly trips to local elementary schools. Does NOT meet the upperdivision major requirement for French Studies, International Studies, or Modern Languages with an emphasis in French. Prerequisite: Fren 102. 1-3 hours. May be repeated once for credit. Steinert Borella.

## Fren 301 Composition and Conversation

Practice in conversational idiom through reading and discussion of contemporary short stories, periodical literature and oral interviews. Extensive practice in composition with analysis and correction of students' errors in the classroom. Taught in French. Prerequisite: Fren 202 or equivalent competency. 3 hours. Steinert Borella, Ricciardi. Offered alternate years.

## Fren 304 Twentieth Century French Theatre

Analysis of representative plays by French and Francophone authors including Jarry, Sartre, Anouilh, Genet, Beckett, Ionesco, Schwarz-Bart, and others. Introduction of theoretical texts relevant to the plays studied. Prerequisite: Fren 202 or an equivalent competency. Taught in French. 3 hours. Meets Humanities core requirement. Steinert Borella. Offered intermittently. (G)

## Fren 305 French Literature and Culture: 1637 to the present

An introduction to major developments in French literature and culture including Classicism, the Enlightenment, Romanticism, Realism, surrealism, and the "nouveau roman". Prerequisite: French 202 or equivalent. Taught in French. 3 hours. Meets Humanities core requirement. Steinert Borella. Offered intermittently. (G)

## Fren 307 The Contemporary Short Story

Study of significant short stories by major writers in the French-speaking world, among them Maupassant, Leciezio, Kamanda, Roy, and others. Prerequisite: Fren 202 or an equivalent proficiency. Taught in French. 3 hours. Meets Humanities core requirement. Steinert Borella. Offered intermittently. (G)

## Fren 308 Contemporary Issues in French Press

Reading and discussion of selected articles from French newspapers and magazines. Course work would be supplemented by relevant video and audio-visual materials. Prerequisite: Fren 202 or equivalent proficiency. Taught in French. 3 hours. Steinert Borella, Ricciardi. Offered intermittently. (G)

## Fren 401 Gender, Culture, and Society: Women's Writing in the Francophone World

Survey of women's writing in the Francophone world throughout the 20th century. Special focus on the novel and the development of alternative prose forms. Authors from France, Switzerland, Belgium, Quebec, the French Caribbean, Senegal, and Algeria may be included. Taught in French. 3 hours. Meets Humanities and Cross-cultural core requirement. Steinert Borella. Offered intermittently. (G)

## Fren 485 Seminar in French Studies

A concentrated study of one of the major movements in French and Francophone literature, art, and culture. Topics include: the rise of Classicism, the French Revolution, the 19th century French novel, writing and resistance: 1848-1968, and literature in French-speaking Switzerland. May be taken more than once for credit. Prerequisite: Consent of the instructor. Taught in French. 3 hours. Steinert Borella. Offered intermittently.

## Fren 494/495 Senior Thesis in French Studies

This course is designed to assist senior students who are writing a thesis for a major in French Studies. Students will receive direction in completing their research proposal and help in conducting and writing their senior thesis in French. These are student-conducted individual research theses. Students take 494 and 495 in consecutive semesters. Prerequisite: Senior standing and study abroad. Taught in French. 2 hours per semester. Steinert Borella.

## German (Ger)

## Ger 101-102 Introduction to German Language and Culture

The beginning course is intended to give training in the basic patterns and structures of German. Conversation and reading related to the cultures of German-speaking areas. 3 hours each semester. French.

## Ger 201-202 Intermediate German

Designed to prepare students to identify conversational vocabulary. Expansion of conversational, reading, and comprehension skills. Review and development of grammatical constructions most commonly used in speaking. Use of periodical and literary sources and audio-visual materials. Prerequisite: Germ 102 or an equivalent proficiency. 3 hours. French.

## Ger 301 Topics in German Culture

Extensive practice in composition and conversation. Reading and discussion of materials from German newspapers, magazines, and short story collections. Audio-visual materials develop the students' comprehension of the German language, media, society and culture. Prerequisite: Germ 202 or an equivalent proficiency. 3 hours. French. Offered alternate years.

## Ger 302 Contemporary Short Stories and Narrations

Study of significant short stories by major writers in the post-WWII, German-speaking world: Ingeborg Bachmann, Peter Bichsel, Heinrich Böll, Irmtraud Morgner, Peter Schneider, Christa Wolf, and others. Students report on stories or authors not covered in the classroom. Prerequisite: Germ 202 or equivalent proficiency. 3 hours. Meets Literature core requirement. French. Offered intermittently. (G)

## Ger 303 German Literature and Culture 1750 to the present

Study of significant developments in literature and culture with focus on the Enlightenment, Classicism, Romanticism, Realism, Expressionism, the Nazi period, and the post-WW II period, including the 1990 unification. Prerequisite: Germ202 or equivalent proficiency. Taught in German. 3 hours. Meets Literature core requirement. French. Offered intermittently. (G)

## Ger 315 Advanced Grammar and Composition

Extensive review of advanced grammatical concepts and practice of written idiom through reading, viewing, discussing, and writing using short stories, newspapers, films, and magazine articles. Development of vocabulary and grammatical constructions through composition with analysis and correction of students' errors in class. Prerequisite: Germ 202. or equivalent proficiency. 3 hours. French. Offered intermittently. (G)

## Ger 400 German Film

Analysis of significant 20th-century German films with concentration on films from the Weimar Republic and on New German Cinema. Study of theoretical and literary texts in relation to the cultural and political climate. Prerequisite: consent of the instructor. Taught in German. 3 hours. French. Offered intermittently. (G)

Ger 485 Seminar in German Studies
An in-depth study of various cultural issues as reflected in the literature, art, history, and politics of German-speaking countries. Topics include: survey of German literature in historical context; German unification; gender and society; politics and culture. Taught in German. Prerequisite: consent of the instructor. 3 hours. French. Offered intermittently. (G)

## Ger 494/495 Senior Thesis in German Studies

This course is designed to assist senior students who are writing a thesis for a major in German Studies. Students will receive direction in completing their research proposal and help in conducting and writing their senior thesis in German. These are student-conducted individual research theses. Students take 494 and 495 in consecutive semesters. Prerequisite: Senior standing and study abroad. Taught in German. 2 hours per semester. French.

## Italian (Ital)

## Ital 100 Elementary Conversational Italian

This beginning course is intended to give immersion training in Italian during the Winter 3 period. Conversation and reading related to the cultures of Italian-speaking areas. Classroom work is supplemented by video work and laboratory experience. This course does NOT meet the core requirement. 3 hours. Ricciardi. Offered intermittently.

## Japanese (Japn)

## Japn 101-102 Introduction to Japanese Language and Culture

Intensive introductory Japanese. Training in the basic patterns and structures of Japanese. Emphasis on oral and aural skills. Japanese writing of Hiragana and Katakana is introduced from the beginning to ensure the overall development of language skills. Development of cultural awareness that influences language usage. 3 hours each semester. Ikeda, Fujita, Garcia.

## Japn 201-202 Intermediate Japanese

Expansion of conversational skills. Development of reading and writing skills in three different characters in Japanese. Application of cultural awareness in Japanese language learning. Prerequisite: Japn 102 or an equivalent proficiency. 3 hours each semester. Ikeda, Fujita, Garcia.

Japn 301-302 Communicating in Japanese Development of communicative competence in Japanese with emphasis on conversational skills. Reading and writing skills will also be practiced to expand vocabulary and cultural knowledge. Application of cultural awareness in various communication situations. Prerequisite: Japn 202 or equivalent proficiency. 3 hours. Ikeda, Fujita,.

## Japn 307 Readings in Contemporary Japanese Writers

Study of short stories and essays written by major writers in Japan. Reading materials are utilized for vocabulary expansion, Kanji recognition and writing in order to achieve better understanding of the content by grasping cultural meanings. Prerequisite: Japn 202 or equivalent proficiency. 3 hours. Meets Literature core requirement. Ikeda. Offered alternate years. (G)

Japn 315 Grammar and Composition
Extensive review of grammatical concepts and practice of written idiom through reading, writing, and discussing short stories, newspapers, films, and magazine articles. Development of vocabulary and grammatical constructions through composition with analysis and correction of students' errors in class. Prerequisite: Japn 202 or equivalent proficiency. 3 hours. Fujita. Offered alternate years. (G)

## Japn 401 Topics in Contemporary Literature

Study of Japanese culture through selected topics in contemporary literature. Topics include various human relationships in Japan, love and death, aesthetic attitudes, attitudes toward religion. Extensive analysis of these topics by understanding Japanese cultural values, beliefs, norms and behavioral patterns. Taught in Japanese. Prerequisite: 302. 3 hours. Meets Literature core requirement. Ikeda. Offered alternate years. (G)

## Japn 402 Selected Issues in the Japanese Press

The course provides the opportunity to enhance Japanese reading skills and acquisition of cultural knowledge through newspaper and magazine article reading. Supplementary materials are brought in to broaden the students' understanding of the Japanese language, people, and culture. Prerequisite: Japn 302. Taught in Japanese. 3 hours. Ikeda, Fujita. Offered intermittently. (G)

## Japn 415 Structure of Japanese

Development of linguistic knowledge about the Japanese language. Study of structure of Japanese words and their categorization. Grammatical and syntactical analysis of Japanese sentences. Structural analysis of Japanese paragraphs. This course will be of use to both students of Japanese and to those who intend to become teachers of Japanese. Prerequisite: Japn 301 and 302, or equivalent proficiency. 3 hours. Fujita. Offered intermittently. (G)

## Japn 445 The Sociolinguistics of Japanese

This course will provide the opportunity to study the impact of the Japanese social norm, and cultural attitudes and values on language usage. Attitudes toward standard language and dialects will be discussed. Variations of styles in spoken and written Japanese will be also analyzed. This course will be of use to both
students of Japanese and to those who intend to become teachers of Japanese. Prerequisite: Japn 302, or equivalent proficiency. 3 hours. Fujita. (G)

## Japn 485 Seminar in Japanese Studies (G)

An in-depth study of various cultural issues as reflected in the literature, art, history, and politics of Japan. Topics include: survey of Japanese literature in historical context; gender and society; politics and culture. Taught in Japanese. Prerequisite: consent of the instructor. 3 hours. May be taken more than once for credit. Ikeda, Fujita. (G)

## Japn 490 Senior Capstone

This capstone course is required of all Japanese majors. Seniors will conduct extensive projects, exploring social, cultural, linguistic or literary issues under the supervision of faculty. Emphasis will be placed on acquisition of translation techniques and critical analysis of various written materials. Prerequisite: Senior standing in Japanese and consent of instructor. 3 hours. Ikeda, Fujita.

## Spanish (Span)

Span 101-102 Introduction to Spanish
Language and Culture
The beginning course is intended to give training in the basic patterns and structures of Spanish. Conversation and reading related to the cultures of Spanish-speaking areas. Classroom work is supplemented by laboratory practice. 3 hours. Christoph, E. Rodríquez, V. Rodríquez, and Valenzuela.

## Span 201-202 Intermediate Spanish

Expansion of conversational skills and continuation of reading practice. Use of periodical and literary sources and audio-visual aids. Prerequisite: Span 102 or an equivalent proficiency. 3 hours. Cabello, Christoph, E. Rodríquez, V. Rodríquez, and Valenzuela.

## Span 301 Composition and Conversation

Practice in conversational idiom through reading and discussion of contemporary short stories, periodical literature, and oral interviews. Extensive practice in composition with analysis and correction of students' errors in the classroom. Prerequisite: Span 202 or equivalent proficiency. Taught in Spanish. 3 hours. Christoph and V. Rodríguez. Offered annually.

## Span 302 Contemporary Spanish Novel

Study of representative 20th century novels from both Spain and Latin America. Student reports on works and authors not covered in the classroom. Prerequisite: Span 202 or an equivalent proficiency. Taught in Spanish. 3 hours. Meets Literature core requirement. Cabello and V. Rodríguez. Offered intermittently. (G)

## Span 303 Introduction to Hispanic Literatures

An introduction to the study of literature in Spanish through the genres from different periods and countries of the Hispanic world. Continued practice in composition with in-class editing. Prerequisite: Span 202 or an equivalent proficiency. Taught in Spanish. 3 hours. Meets Humanities core requirement. Christoph. Offered annually.

## Span 304 Contemporary Spanish Drama

Analysis of representative plays of contemporary dramatists from both Spain and Latin America: Sastre, Mihura, Arrabal, Usigli, Wolf, Carballido, and others. Students report on plays and authors not covered in class. Prerequisite: Span 202 or equivalent proficiency. Taught in Spanish. 3 hours. Meets Literature core requirement. Christoph. Offered intermittently. (G)

## Span 305 Contemporary Spanish Poetry

Analysis of representative poems of the major contemporary poets of Spain and Latin America: Antonio Machado, García Lorca, Juan Ramón Jiménez, Vicente Alexandre, Pablo Neruda, Cesar Vallejo, and others. Student reports on poems and authors not covered in the classroom. Prerequisite: Span 202 or equivalent proficiency. Taught in Spanish. 3 hours. Meets Literature core requirement. Cabello and V. Rodríquez. Offered Intermittently. (G)

## Span 308 Contemporary Short Story

A study of short stories by major contemporary writers in the Spanish-speaking world: Borges, Cortazar, Rulfo, Onetti, García Márquez, Concha Lagos, Carmen Conde, Medardo Fraile, and others. Student reports on stories and authors not covered in the classroom. Prerequisite: Span 202 or equivalent proficiency. Taught in Spanish. 3 hours. Meets Literature core requirement. Cabello, V. Rodríguez and Christoph. Offered intermittently. (G)

## Span 310 Contemporary Spanish Music and Cultures

Study and analysis of representative genres of popular music and their relationship to culture and literature in twentieth-century Spanish America and/or Spain: "Música Folklorica"," El bolero y la balada", "La canción política"; "música Afro-hispana", "Latin-Jazz", "Rock en español" and others. Students will report on material not covered in the classroom. Prerequisite: Span 202. 3 hours. V. Rodríguez. Offered intermittently. (G)

Span $315 \begin{aligned} & \text { Advanced Grammar } \\ & \text { and Composition }\end{aligned}$
This course is designed to 'fill in" the Spanish grammar and vocabulary gaps of the advanced/ intermediate student. Course reviews the more difficult grammatical structures in Spanish while introducing advanced vocabulary, idioms and colloquialisms. Emphasizes vocabulary building, composition skills and comprehension of the wide range of Spanish found in literature, journalism, advertising, and everyday speech. Taught in Spanish. Prerequisite: Span 202. 3 hours. Christoph. Offered intermittently. (G)

## Span 401-402Survey of Peninsular Spanish Literature

A study of the major works and literary movements of Spain. Student reports on authors, genres, or works not covered in the classroom. Prerequisite: a Spanish course at 300 level or consent of the instructor. Taught in Spanish. 3 hours. Meets Literature core requirement. Cabello and Christoph. Offered alternate years. (G)

## Span 411-412 Survey of Spanish

 American LiteratureA study of the major works and literary movements of Spanish America from the pre-Columbian era through the 20th century. Prerequisite: a Spanish course at 300 level or consent of the instructor. Taught in Spanish. 3 hours. Meets Literature core requirement. V. Rodríguez. Offered alternate years.

## Span/Ed 465 Spanish in the <br> Elementary School

This course is an introduction to the principles of second language acquisition as they apply to bilingual education and second-language instruction in elementary school programs. Students will become acquainted with dual language materials, bicultural perspectives, and strategies for the achievement of biliteracy. This class includes the observation component in a bilingual classroom. Prerequisite: Spanish 202 or equivalent. Taught in Spanish and English. 4 hours. Does not count towards Spanish major. Cabello and McClain. Offered intermittently ( $G$ )

## Span/Ed 466 Mexico: A Cultural Mosaic

This class will focus on Mexican history, folklore, culture, music, and visual arts with the needs of the elementary classroom in mind. The class will be taught bilingually and discuss the historical and cultural basis for the Mexican aesthetic. In addition, students have opportunities to participate in musical experiences and handson art projects also suitable for the elementary classroom. As a culminating event, the students will design and implement Festival day that will include community participation. Includes an observation component in a bilingual classroom. Prerequisite: Spanish 202 or equivalent. 4 hours. Does not count towards Spanish major. V. Rodríguez. Offered intermittently. (G)

## Span/Ed 467 Practicum in Tapalpa, Mexico

Students will complete a teaching practicum in an elementary/middle school in Tapalpa, Mexico. This will also include a weekly seminar and weekend cultural excursions and a two day orientation prior to departure. Prerequisite: Span/Ed 465 Spanish in the Elementary School or consent of instructors. 3 hours. Does not count towards Spanish major. Cabello/ McClain. Offered intermittently. (G)

## Span 485 Seminar in <br> Hispanic Studies

Detailed study of the works of one or more contemporary writers or of selected areas of Hispanic culture. Students will conduct research and complete a major paper. Taught in Spanish. Prerequisite: completion of study abroad or nearnative fluency. May be repeated once for credit when content varies. 3 hours. Cabello, Christoph, and V. Rodríguez.

# Academic Policies \& Procedures 

## ACADEMIC POLICY ADM INISTRATION

In the College of Arts and Sciences, the Associate Dean, in cooperation with the Registrar, handles matters of academic rules and regulations. The office of the Associate Dean is located in Bates House.

## REGISTRATION POLICIES <br> Registration Requirements

In keeping with Pacific's philosophy regarding the student-advisor relationship, prior to registration all students are required to meet with their advisor and together develop the student's schedule of classes.
New students meet with their assigned advisors during the summer; continuing students are advised in April for the fall semester, and in November for the winter term and spring semester. An early registration occurs at the end of those advising periods in November and April, with students registering in priority according to the number of credits earned.
All new students must complete their initial registration no later than the fourth day of classes (or equivalent) of the semester; continuing students may complete initial registration through the 10th day (or equivalent) of the semester. Students may add and drop classes through the 10th day (or equivalent) of the semester. The adding of classes is not normally allowed after the 10th day. Students may withdraw from classes through the 10th week (or equivalent) of the semester, with a "W" posted on the student's academic record. Please refer to the Schedule of Classes for add / drop equivalents for Winter III and summer terms.
A student is officially registered for classes only after needed approvals from the advisor and instructors have been filed with the Registrar and classes are entered into the computer registration system.

## Course Registration

Course registration procedures and are distributed each semester by the Registrar's Office, indicating when continuing students may pre-register for classes (see Academic Calendar). The University reserves the right to cancel the registration of any student who is delinquent in meeting their financial obligation to the University.

## Measles Vaccination Policy

The State of Oregon requires all full-time college students born after 1956 to have had two doses of the measles vaccine. Students who have not satisfied this requirement by November 1 of Fall semester (March 15 for Spring semester) will not be permitted to pre-register for future classes until they are in compliance. Please direct questions regarding this matter to the Student Health Center at 503-352-2269.

## Oregon Independent Colleges Cross-Registration

Pacific University participates in the Oregon Independent Colleges (OICA) Cross-Registration program, in which students enrolled full-time at any OICA college may take a maximum of one undergraduate course per term at another OICA campus. No additional tuition will be charged for the crossregistered course by either institution, with the exception of possible overload or special course fees. Students may not cross-register for a course that is offered on their own campus unless scheduling conflicts prevent taking the course. Registration is permitted on a "space-available" basis. For more information contact the Pacific University Registrar's Office.

## Withdraw als

Students may drop a class through the first ten class days of the semester (first three days of a three week term) without having the class appear on the transcript. Students may withdraw through the tenth week of the semester (second week of a three week term) and receive a " W " on the transcript, with no grade penalty. Late withdrawals are normally not permitted unless approved by the appropriate Academic Standards committee.
It is the responsibility of the student to notify the Registrar's Office and the instructor regarding withdrawing from a class, otherwise the student may receive a failing grade. Prior to the end of the withdrawal period instructors may notify the Registrar of student(s) not attending class, and may withdraw them and issue a grade of " W ". If a student has been pre-registered for a class and does not attend two class periods or the first academic week, whichever is less (first day of a three week term), the instructor may have the Registrar drop the student from the class (unless prior arrangements have been made between the student and the instructor).
If a student wishes to withdraw from all classes, an exit interview with the Dean of Students is necessary to initiate the formal withdrawal process.
Students who must withdraw for health emergencies or other emergency reasons may be granted an Administrative Withdrawal by the Dean of Students (for undergraduate students) or by the appropriate Dean or Program Director (for Professional students). The Dean/Program Director will consult with the course instructors and may require a statement from a physician or other documentation.
Instructors may withdraw a student from class for poor attendance, poor participation, misconduct, or for disruptive or endangering behavior that interferes with the faculty member's obligation to set and meet academic and behavioral standards in each class. Instructors will distribute a syllabus that includes a clear statement of policy regarding attendance, participation, and withdrawing students from class. Misconduct or disruption does not apply to the content of speech or written work protected by freedom of expression or academic freedom. Due process will be followed and students may appeal such decisions to the appropriate committee or administrator.

The Dean of Students, acting on behalf of the University, may withdraw a student from the University if the student has mental or physical health problems that cause the student to engage in or threaten to engage in behavior which (a) poses a danger of causing physical harm to the student or to others or (b) directly and substantially impedes the activities of other members of the campus community. (The procedure to be followed in these withdrawals is printed in its entirety in Pacific Stuff and is in accord with the guidelines of the American Psychiatric Association and Section 504 of The Rehabilitation Act of 1973.) Re-enrollment will be at the discretion of the Dean of Students, in consultation with appropriate health professionals.

## Normal Load, Overloads

To be a full-time student, the student must be registered for at least 12 hours in the semester.
Students may register up to 18 semester hours with no additional tuition charges. A normal load is 14 or 15 hours. Registration for more than 18 hours requires the approval of the advisor and the Dean.
In the Winter III a normal load is one course or three credit hours. Overloads during Winter III are not possible.

## Class Standing:

- Freshman / 0-29 semester hours completed
- Sophomore $/ 30-59$ semester hours completed
- Junior /60-89 semester hours completed
- Senior $/ 90+$ semester hours completed


## Auditing

As an auditor, a student enrolls in, pays for, and attends classes, but does not necessarily complete assignments or take examinations. No credit is received for an audited course. Students must declare the Audit option before the end of the add-drop period. Once you declare the Audit option you may not revert back to the graded option. See Business Office section for payment information.

## GRADING POLICIES

Grades are recorded by letter, with the following point values:

| A | 4.0 ........ Excellent |
| :---: | :---: |
| A- | 3.7 ........ Excellent |
| B+ | 3.3 ........ Good |
| B | 3.0 ........ Good |
| B- | 2.7 ........ Good |
| C+ | 2.3 ........ Satisfactory |
| C | 2.0 ........ Satisfactory |
| C- | 1.7 ........ Substandard |
| D+ | 1.3 ........ Substandard |
| D | 1.0 ........ Substandard |
| F | 0 ........... Failure |
| P | ............ Pass |
| H | ............ Pass-A equivalent |
| HP | ............ Pass-B equivalent |
| L | $\qquad$ Actual grade will be turned in late |
| N | ..... No Pass |
| I | 0.0 ........ Incomplete |
| IA | 4.0 ........ Incomplete; contingent grade A |
| IA- | 3.7 ........ Incomplete; contingent grade A- |
| IB+ | 3.3 ........ Incomplete; contingent grade $\mathrm{B}+$ |
| IB | 3.0 ........ Incomplete; contingent grade B |
| IB- | 2.7 ........ Incomplete; contingent grade B- |
| IC+ | 2.3 ........ Incomplete; contingent grade $\mathrm{C}+$ |
| IC | 2.0 ........ Incomplete; contingent grade C |
| IC- | 1.7 ........ Incomplete; contingent grade C - |
| ID+ | 1.3 ........ Incomplete; contingent grade $\mathrm{D}+$ |
| ID | 1.0 ........ Incomplete; contingent grade D |
| IF | 0.0 ........ Incomplete; contingent grade F |
| W | ............ Withdrawal by Student |
| AW | $\qquad$ Administrative Withdrawal |
| X | ............ Continuing Course |

(Limited to courses approved by the College. The grade of " X " will revert to a " P ," " N ," or letter grade when work is completed.)

## Pass/No Pass Option

Students must declare the Pass/No Pass option before the end of the tenth week of the course, by completing the appropriate form in the Registrar's Office. Once you declare the Pass/No Pass option you may not revert back to the graded option.
In Arts and Sciences, the " P " grade is equivalent to a " C " or above. In Arts and Sciences, students may take one course, in addition to courses requiring $\mathrm{P} / \mathrm{N}$ grading, each semester on a Pass/No Pass basis; such courses may not be used to fulfill core requirements, science requirements for the B.S. degree, major or minor requirements, or teaching endorsement requirements.

## Incompletes

Instructors may issue a grade of Incomplete only when the major portion of a course has been completed satisfactorily, but health or other emergency reasons prevent the student from finishing all requirements in the course. The instructor and the student should agree upon a timeline for the completion of all work, with the following limitations:

1. Incompletes given for Fall and or Winter III terms must be completed by the following April 15.
2. Incompletes given for Spring semester or Summer session must be completed by the following November 15.
Instructors will issue the grade the student would have earned by not completing the course, preceded by an " I ". This grade is determined by including a failing grade for the missing assignment(s) in the calculation of the final grade. If the agreed upon course work is not completed in the period allotted and an extension has not been granted, the grade issued will become permanent. The contingency grade will be used in the computation of the GPA until such time as a new grade is recorded.

## Repeated Courses

If a course taken at Pacific University is repeated at Pacific University, in the College of Arts and Sciences and in Education, only the higher grade is used in computing the grade point average; in all other professional programs BOTH grades are counted in the grade point average.
If a course taken at Pacific is repeated at another institution, the Pacific grade will still be counted in the GPA. No course may be counted more than once towards graduation requirements.

## Grade Change

Once a grade is submitted to the Registrar it shall not be changed except in the case of recording errors. Grade changes must be approved by the appropriate Dean or Program Director.

## Retro-Active Credit

There is a one year time limit for granting retro-active Pacific University institutional credit for which the student did not initially register. This course work must be documented, with the instructor's approval, and completed at Pacific University.

## Grade Reports

Grades will be available to students at the end of each grading period. Grades normally are available at "Boxer online," on Pacific University's web site. According to the Student Academic Records Policy, parents of students will be mailed grade reports only if the student has provided the Registrar with a signed release.

## Transcripts

Students must review their academic records online or order a transcript of their Pacific University record in accordance with the Family Rights and Privacy Act guidelines. A signed request for the transcript must be supplied to the Registrar's Office, with a $\$ 3$ fee assessed for each official transcript requested. Faxed copies are available for an additional $\$ 3$. Unofficial transcripts for presently enrolled students are free, with a limit of two per request, and are to be picked up in person.
Up to one week may be necessary for official transcript requests; two days for unofficial transcript requests (available to current students only). If transcripts must be processed within 24 hours, a "rush" fee of $\$ 15$ is charged.

## Dean's List

In order to make the Dean's List in the College of Arts and Sciences, a student must achieve a term GPA of 3.70 with 12 or more graded hours.

## Transfer Credits and GPA

Only grades earned at Pacific are calculated into the Pacific GPA. Courses taken elsewhere, if approved by the Registrar, can be used to meet degree requirements, but the grades in transfer courses are not included in the calculation of the GPA. A grade of below "C-" earned at another institution will not transfer to Pacific University. Transfer courses used to satisfy a major or minor requirement may need department approval.

## SATISFACTORY ACADEMIC PROGRESS

Students will maintain satisfactory academic progress with:

1. a cumulative GPA at Pacific University of at least 2.0.
2. 12 hours of coursework credited toward graduation in the previous semester in which they were enrolled as a full-time student.
3. a GPA of at least 2.0 in the previous semester.

## Warning

Full-time students who do not meet each of these three standards for the first time will be placed on Warning. Students on warning, after meeting with their faculty adviser, may be asked to consult with the Associate Dean, who can help students get the help they need.
The academic progress of students receiving an academic "warning" who have received a "warning" for any previous semester at Pacific University will be reviewed by the Standards and Advising Committee to determine if their status should be changed to "probation" or "suspension".
Students encountering academic problems are reminded that financial aid eligibility also depends on academic achievement. See Financial Aid section in this catalog, and consult the Financial Aid office.

## Suspension and Probation

Students on Warning who fail to meet one or more of the three standards in any subsequent semester may be suspended from the College; a typical suspension lasts for one academic year. Students on Warning whose
records show significant improvement, or whose circumstances are unusual, may be allowed to continue on academic probation. Decisions on suspension or probation are made by the Standards and Advising Committee of the College of Arts and Sciences.
Students on academic probation are not in good academic standing and are ineligible to participate in University sponsored activities including intercollegiate athletics, forensics, student media and in other activities as the Dean of Arts and Sciences may direct.

## Readmission after Suspension

Suspended students may apply to the Dean's Office to begin the readmission process one year after suspension. Applications will be reviewed by the Standards and Advising Committee. Complete applications for readmission for fall semester must be received no later than August 1st; complete applications for spring semester must be received no later than January 2 nd . Completed applications received after those dates will be considered for the following semester.
Within the application for readmission students should present evidence of renewed motivation and commitment to academic success such as successful employment or study at another college during the interim. With such evidence readmission may be granted, unless the Standards and Advising Committee determines that academic success at Pacific is still unlikely.
Students re-admitted after being on suspension will be placed on probation (see above). If a re-admitted student subsequently does not meet the academic standards of Pacific University and becomes eligible for suspension, that student may be dismissed from the University by the Standards and Advising Committee.

## VETERANS' EDUCATIONAL BENEFITS

The Registrar is the certifying official for all Veterans' benefits for students. All eligible students are requested to fill out necessary application and certification documents prior to the start of classes.

## SUMMER SESSIONS

Each summer, Pacific University offers three intensive 4 -week terms through the Summer Sessions program. A variety of classes are available which apply to undergraduate degree requirements and graduate teacher education programs. Summer Sessions provide an affordable option for earning additional credits or accelerating degree completion. The Summer Sessions catalog is available in mid-March and may be requested by writing or calling the Registrar's Office.

## OTHER POLICIES \& PROCEDURES

## Academic Advising

Students are assigned a faculty advisor by the Dean's Office upon admission to Pacific. Advisors work closely with students to develop a sequence of courses that meets individual needs. Experience shows that successful students are those who have frequent contact with their Faculty Advisors, and students may not register for classes until they have consulted with their advisor.
When students declare a major, during the sophomore year, they should be working with a Faculty Advisor in their major area. Problems with advising should be taken to the Dean's office.
Students who expect to apply to Pacific programs in Teacher Education, Optometry, Physical Therapy, Occupational Therapy, or Professional Psychology must pass specific prerequisite courses: see the relevant sections of this catalog.
Students are urged to seek the help of the Admissions Office which maintains information on prerequisite courses.

## Advanced Placement

Credit toward graduation will be given for a score of 4 or 5 on the advanced placement test in any field. Credit awarded will be four credits in mathematics and the natural sciences and three credits in all other subjects. Actual placement in college courses depends on the student's preparation and is arranged through the relevant department.

## Attendance

Students are responsible for class attendance, participation, and completion of assignments. The University believes that students should attend all classes.
Individual faculty members should notify students in their classes of their attendance policy at the beginning of each semester; students should request a clear statement of policy. The instructor may lower a student's grade or may officially withdraw the student from the course through the tenth week of the semester for poor attendance or participation. Note that the instructor cannot drop pre-registered students from a course until after two class periods or the first academic week, whichever is less (first day of a three-week term).
Students are encouraged to inform their instructors of unavoidable absence in advance. Assignment of make-up work is at the discretion of the instructor.

## Independent Study (Learning Contract)

To undertake advanced and independent study in subjects not covered by regular courses, students may arrange independent study with a professor. An independent study form, available at the Registrar's Office, must be submitted to the Dean's office, complete with all approval signatures.

## International Baccalaureate Degree

Pacific University recognizes the International Baccalaureate program as providing college-level work. Six semester credits will be awarded for each higher examination passed with a score of 5 or higher. Course credits will be regarded as transfer credit and will be determined by the Registrar in consultation with the appropriate department chairs. No credit will be awarded for Subsidiary courses. A maximum of 30 credits can be earned.

## Progress Assessments

At the beginning of a student's senior year, or upon student request, the Registrar's Office will prepare an academic evaluation showing progress toward meeting graduation requirements. Students are expected, however, to know what the requirements are.

## ROTC

Students attending Pacific University who are receiving ROTC funding and wish to take ROTC coursework may do so at Portland State University. Pacific will accept up to 14 semester hours of Military science coursework from PSU, excluding MS 111, 112, 113.
Under a cooperative agreement with the University of Portland, Pacific University students may participate in the Air Force Reserve Officer Training Corps (AFROTC) offered on the University of Portland campus. The purpose of the program, which is administered by the Aerospace Studies faculty, is to select and train students to serve as officers in the United States Air Force.
AFROTC is available to men and women with a minimum of 2 years of college remaining. Scholarships are available on a competitive basis for those who qualify. For more information, check out the University of Portland web site or contact the Program Counselor at the University of Portland.

## STUDENTS' RIGHTS UNDER THE FAM ILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

1. The right to inspect and review the student's education records within 45 days of the day Pacific University receives a request for access. Students should submit to the Registrar's Office written requests that identify the record(s) they wish to inspect. The Registrar will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the Registrar's Office, the student shall be advised of the correct official to whom the request should be addressed.
2. The right to request the amendment of the student's education records that the student believes are inaccurate. Students may ask Pacific University to amend a record that they believe is inaccurate.

They should write the Registrar, clearly identify the part of the record they want changed, and specify why it is inaccurate.
If Pacific University decides not to amend the record as requested by the student, the student shall be notified of the decision and advised as to his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.
One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by Pacific University in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom Pacific University has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.
A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.
Pacific University may disclose education records without consent to officials of another school, upon request, in which a student seeks or intends to enroll.
4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Pacific University to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:
Family Policy Compliance Office U.S. Department of Education

400 Maryland Avenue, SW
Washington, DC 20202-4605

## Directory Information

At its discretion Pacific University may provide Directory Information in accordance with the provisions of the Family Education Rights and Privacy Act. Directory Information is defined as that information which would not generally be considered harmful or an invasion of privacy if disclosed.
Designated Directory Information at Pacific University includes the following: student name, permanent address, local address, temporary address, electronic mail address, telephone number, dates of attendance, degrees and awards received, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, thesis title/topic, photograph, full-time/ part-time status, most recent previous school attended, date and place of birth.
Students may withhold Directory Information by notifying the Registrar in writing; please note that such withholding requests are binding for all information to all parties other than for those exceptions allowed under the Act. Students should consider all aspects of a Directory Hold prior to filing such a request. Although the initial request must be filed during the first two weeks of the enrollment period, requests for nondisclosure will be honored by the University for no more than one academic year. Re-authorization to withhold Directory Information must be filed annually in the Registrar's Office within the first two weeks of the fall semester.

## Policy Availability

Pacific University policy explains in detail procedures to be used by the institution for compliance with the provisions of FERPA. Copies of the policy are on the Registrar's Office web site or are available in the Office of the Registrar.

## Academic

 Conduct Policies
## CODE OF ACADEMIC CONDUCT

Honesty and integrity are expected of all students in class participation, examinations, assignments, patient care and other academic work. Students have the obligation to conduct themselves as mature and responsible participants in this community. Towards this end, the University has established policies, standards and guidelines that collectively define the Student Code of Conduct. The Student Code of Conduct includes all policies, standards and guidelines included in, but not limited to:

- The University Catalog
- The University Handbook
- The student handbook, "Pacific Stuff"
- Professional program policy manuals
- Residence Hall Handbook and Contracts


## Statement of Students' Rights and Responsibilities

Every student has a right to conditions favorable to learning. Students have the right to pursue an education free from discrimination based on gender, race, ethnicity, religion, marital status, age, sexual orientation or physical handicap. Students at Pacific enjoy the freedoms of speech, expression, and association, the right to privacy, the right to freedom from harassment, the right to due process in judicial matters, and the right to appeal judgments and penalties for alleged misconduct.
Students have the responsibility to conduct themselves, both individually and in groups, in a manner which promotes an atmosphere conducive to teaching, studying and learning. Students are expected to uphold academic and personal integrity, to respect the rights of others, to refrain from disruptive, threatening, intimidating, or harassing behavior, or behavior which is harmful to themselves, other persons or
property. Students have the responsibility to abide by the standards, policies, and regulations of the University.

## Policy of Academic Integrity

Pacific University is an academic community where the pursuit of knowledge, understanding, and skills unites us as its members. This community depends on the integrity of its members to fulfill its mission, and we all have a clear and vested interest in promoting it. Every one of us has reasons to be concerned about academically dishonest practices. Among such reasons are the following:

1. Academic integrity is at the core of our community values.
2. Academic dishonesty can undermine the value of Pacific diplomas by weakening the reputation of Pacific University, associating it in the public mind with institutions whose students have little integrity and a poor work ethic.
3. Academically dishonest practices are corrosive of individual and community integrity.
4. In the long run they harm the perpetrator, who fails to give him/herself the opportunity to develop ideas and skills.
5. They are unfair, because they give the cheater an advantage over other students who are relying on their own work and knowledge.
6. They are unfair because they weaken the link between grades and work, undermining the immediate incentive of students to put in the hard work necessary to develop skills and knowledge.
7. Certain forms of academic dishonesty, because they infringe on copyrights, are illegal.
8. Academic dishonesty is a violation of the Pacific University Code of Academic Conduct and will be punished according to university and college policy.

## Forms of Academic Dishonesty Cheating

Cheating is an attempt to use deception to portray one's knowledge and skills as better than they really are. Behaviors that fall under the label of cheating include, but are not limited to:

1. giving or receiving unauthorized aid in academic work such as the improper use of books, notes, or other students' tests or papers.
2. taking a dishonest competitive advantage, for instance preventing others from obtaining fair and equal access to information resources.
3. using work done for one course in fulfillment of the requirements of another, without the approval of the instructors involved.
4. copying from another student's paper.
5. allowing another student to cheat from your test paper.
6. collaborating on projects or exams that are clearly meant to be individual enterprises.
7. using any unauthorized materials during a test.
8. taking a test for someone else, or allowing someone else to take a test for you.
9. stealing another student's work, including material in a computer file, and submitting it as your own.

## Plagiarism

Plagiarism is the use of someone else's words, ideas, or data as your own without proper documentation or acknowledgment. Quotations must be clearly marked, and sources of information, ideas, or opinions of others must be clearly indicated in all written work. Plagiarism can be unintentional, depending on the nature of the violation; nevertheless, in all cases it is and will be
treated as a violation. Behaviors that fall under this category include, but are not limited to:

1. Quoting another person's actual words, complete sentences or paragraphs, or an entire piece of written work without acknowledgment of the source.
2. Using another person's ideas, opinions, or theories, even if they are presented entirely in your own words, without proper acknowledgment of the source from which they were taken.
3. Using facts, statistics, or other material to support an argument without acknowledgment of the source.
4. Copying another student's work.

## Fabrication

Fabrication is the intentional use of invented information, or the use of falsified results or data with the intent to deceive. Behaviors that fall under this category include, but are not limited to:

1. Citation of information not taken from the source that is cited.
2. Listing sources in a bibliography not used in the academic project.
3. Submitting a paper or lab report or any other kind of document based on falsified, invented information, or the deliberate concealment or distortion of the true nature of such data.
4. Forging a signature ona University document.

## Other Forms of Academic Misconduct

These address the intentional violation of University policies, including but not limited to:

1. tampering with grades or helping another to tamper with grades or any other part of a student's academic record.
2. furnishing to a University office or official a document based on information that you know is false or which has been tampered with in an unauthorized fashion.
3. stealing, buying, or otherwise obtaining all or part of an unadministered test. Also the unauthorized (by the instructor) use of a previously administered test.
4. changing a grade in a faculty member's records, on a test, or on other work for which a grade has been given.
5. using electronic information resources in violation of the "Acceptable Use Policy" (which must be signed before joining the University's electronic network).

## Sanctions and Procedures for Handling Cases of Academic Dishonesty

It is Pacific University policy that all acts of academic dishonesty be reported to the Dean or Director of the applicable College or School.

## Sanctions

The range of possible sanctions that may be imposed in instances of academic dishonesty includes, but is not limited to, those listed below; it is general policy that sanctions are imposed that are consistent with the severity of the violation.

1. An " $F$ " for the assignment.
2. An " $F$ " for the course.
3. In case of violations of the "Acceptable Use Policy," sanctions range from being barred from the campus electronic network to suspension from the University.
4. In particularly serious broaches of the academic honesty code, or in repeat offenses, suspension or dismissal from the University may be imposed, as well as other appropriate sanctions.
In all instances, the violation shall be reported to the appropriate Dean or Director. In most first offenses, no permanent record of the violation will be made. Should the student not be involved in any subsequent incidents of academic dishonesty, then the confidential file will be destroyed upon the student's graduation. Only those faculty members directly involved in the incident and those serving on panels that might hear a student's appeal will be notified. Serious or second violations will, however, be noted on the permanent record.

## Procedures

The faculty members will follow these procedures when they believe that an instance of academic dishonesty has occurred.

1. Review the evidence to ensure that there are sufficient grounds to warrant a charge of academic dishonesty. Faculty involved will not consult with colleagues and discuss the details of the incident, but instead consult with the Dean's or Program Directors office to help determine what course of action to pursue.
2. If the faculty member is fairly certain that she or he is dealing with a case of academic dishonesty, the faculty member should meet with the student in question as soon as possible. If the student is unable to explain away the faculty member's suspicions, then the faculty member will collect all available evidence, keeping the originals and submitting photocopies to the Dean or Program Director. Consultation with the program head will occur immediately after having consulted with the student(s) involved. Either the faculty member or the Dean/Program Director will make a photocopy of the work in question available to the accused student(s) on request.
3. When a faculty member believes that a student has violated the academic honesty code during the final examination period and cannot discuss the issue with the student in question (because he/ she has left campus for the holiday or summer), the faculty member will assign the student an "L" grade to show that the actual grade will be turned in late.
4. In cases in which the student and the faculty member come to an agreement about the violation and its sanction, the faculty member may assign the grade agreed upon. In any event, the faculty member will submit a timely, brief, written report of the incident to the Dean or Program Director.
5. In cases where mutual agreement between student and faculty member has not been reached, the following procedures shall be followed:
a. The faculty member will collect all available evidence and submit photocopies of it (keeping the originals) to the Dean or Director, along with a brief written report of the incident and a recommended sanction.
b. The Dean or Director will review the evidence, consult with the student(s), make a determination about whether or not academic dishonesty occurred, and, if so, will impose a sanction commensurate with the nature of the offense.
c. The student may appeal the decision of the Dean or Director to the committee designated to receive such appeals for his or her program.

## University Level Appeals

Final appeals for all cases of academic misconduct will be heard by the University Standards and Appeals Board. All requests for appeals of rulings by college or school academic standards committees shall be submitted in writing to the Vice President for Academic Affairs within 10 school days after the ruling is received by the student. Appeals shall be considered by the University Standards and Appeals Board, which is a standing committee of the University.
Appeals must be explicitly justified by at least one of the following reasons:

1. Evidence of error in procedure by a school or college academic standards committee,
2. New evidence sufficient to alter a decision,
3. Evidence that the sanction(s) imposed was not appropriate to the severity of the violation.
Following the receipt of the appeal, the Board shall convene to consider the appeal. On the basis of the available evidence, the Board will deny the appeal, call for a hearing, or when deemed appropriate, return the appeal to the original academic standards committee for reconsideration. Decisions of the University Standards and Appeals Board are final.

The Vice President for Academic Affairs shall appoint alternate members in cases of conflict of interest or if a regular member is unavailable.

## Things Students Can Do to Avoid Charges of Academic Dishonesty

1. Prepare in advance for examinations and assignments; don't let yourself get too far behind in your reading and studying for any of your courses.
2. Prevent other students from copying your exams or assignments. Try to choose a seat during an exam away from other students. Shield your exam. Don't distribute your papers to other students prior to turning them in.
3. Check with your instructor about special requirements that might pertain to that particular course or assignment. If you cannot find a written section in the syllabus or on the actual assignment to answer your questions about what is acceptable, ask the instructor what his/ her expectations are.
4. Utilize a recognized handbook on the citation of sources (Many professional organizations have style manuals for this purpose, for example, the APA Style Manual for psychology or the MLA Style Sheet for the humanities). Be sure to ask your professor what an acceptable style guide is for the written work you will be submitting in her/his course.
5. Discourage dishonesty among other students.
6. Refuse to help students who cheat.
7. Protect your rights and those of other honest students by reporting incidents of cheating you have observed to the professor.

# University Services and Resources 

## STUDENT LIFE DIVISION

## Dean of Students

The Dean of Students has overall responsibility for many of the services to students at the University such as crisis intervention, disability services, health and wellness, international student services, learning support services, mediation services, multicultural services, new student orientation, parents' programs, residence life, housing, student activities, the University Center, Pacific Outback, Pacific Information Center, the Student Code of Conduct, the judicial process, student government, and the student handbook, "Pacific Stuff". Both undergraduate and professional student governing bodies work closely with the Dean in presenting, discussing and resolving student concerns. The Dean assists individual students and student groups with a wide variety of interests and concerns, and ensures that student opinion is communicated throughout the University. Working for all students at the University, the Dean should be regarded as a resource by both undergraduate and professional program students for questions, problem solving, or simply when it is unclear where to go with a particular issue. The Dean welcomes students' viewpoints on programs, policies and facilities.

## Activities

Pacific University supports numerous student activities including intramural sports, concerts and lectures, an outdoor and off-campus program (Pacific Outback) and a variety of other student groups and clubs. The Milky Way is the center for numerous activities, concerts and movies, and also houses Cosmic Coffee and Pacific Outback. In addition, the University sponsors a variety of student activities aimed at providing diverse opportunities. These include activities such as a traditional Hawaiian Luau, the

McCall Forum, where nationally recognized speakers debate issues of national concern, Founder's Week and Wassail, a traditional holiday celebration.
All students at Pacific University are members of the Associated Students of Pacific University (ASPU). ASPU supports numerous student activities and over forty clubs and organizations. These organizations range from religious groups to academic organizations, recreational sport teams and special interest clubs.

## Student Government

Student Government at Pacific provides ample opportunity for students to develop and exercise leadership, to make decisions, and to create a stimulating campus atmosphere. Undergraduate students are represented by the President and Vice President of the undergraduate student body and by the Pacific Undergraduate Community Council (PUCC). The PUCC, which includes faculty, administrators, and undergraduate students develops, reviews, and recommends policy on matters affecting undergraduate students. Professional students are represented by the Professional Programs Council (PPC) which includes a representative of each of the professional schools.

## Forensics

Students wishing to increase public speaking skills or analytical skills may compete in Forensics (intercollegiate speaking and debating). Students represent Pacific at regional and national Speech and Debate Tournaments throughout the academic year.
Membership on the Forensics Team includes membership in Pi Kappa Delta, a National Honorary Fraternity. In addition to competing, students are expected to help with the administration of the "Hap" Hingston Invitational High School Speech and Debate Tournament, held in early December.

## Student Media

Student publications and the campus radio station provide valuable opportunities for Pacific students wishing to gain management and production experience in these particular media fields.

- The Pacific Index, the campus newspaper, gives students the opportunity to gain valuable writing, editing, advertising, and business experience. The Index is published bi-weekly.
- The Pacific Review, a literary magazine, includes poetry, graphics, articles, photography, short stories, and other items contributed by students. It is published twice a year and is sponsored by the English Department.
- KPUR, the campus radio station, is broadcast to residence halls and the University Center. Student-managed and operated, KPUR, 94.5 FM offers music, news, and special programs - all provided by students.
- Pacific Productions provides an opportunity for video production experience through the taping of athletic events, campus activities and independent projects. Productions are broadcast over the community cable TV system.


## Counseling Center

Assistance is available through the Tuality Student Counseling Center for all registered students who pay a health fee as part of their tuition. Services are provided to students experiencing personal problems or academic adjustment difficulties. Common concerns include adjustment to school pressures, homesickness, career anxieties, family issues, and relationships with friends, domestic partners and classmates. The counseling center is staffed by a Ph.D. Director, a staff Psychologist, and other trained counse-
lors who provide guidance and support to students. The Counseling Center services are free and confidential.

## Student Counseling Center 2011 Cedar Street, Forest Grove 503-352-2191

## Food Service

The campus dining services in the University Center offer a convenient and economical way to meet student's nutritional needs. ARAMARK, the University's meal service provider, offers a variety of dining options, such as a salad bar, TacoTime, a grill, a deli bar (The Dive) and a coffee kiosk.
ARAMARK also offers, for the commuter students, faculty/staff and part-time students a Declining Balance program. While cash is the method of choice to pay for meals in the University Center, there is a growing number of students who are choosing a declining balance option. Whether a student lives on or off campus he or she can pay at a discount to have meals or snacks in the commons or the Dive.

## Health Services

Health care is provided through the Student Health Center. Staffed by two Nurse Practitioners, two Certified Medical Assistants, and an Office Administrator. The Student Health Center provides treatment of acute illness/ injury and stable chronic illness, family planning services, health education, and referral to physicians. Nurse Practitioners provide general health care including physical exams and prescriptions for medication when appropriate. Appointments are available throughout the week as well as some evenings and weekends. All records in the Student Health Center are confidential.

## Student Health Center 2011 Cedar Street, Forest Grove

## Housing and Residence Policies

## Residence Halls

Because learning outside of the classroom is as essential as learning inside the classroom, residential living is an integral part of the total Pacific experience. Residence halls are designed to be living-learning environments where trained residence staff help students make smoother transitions to the next phase of their development. Fostering a climate of friendship and understanding among students with diverse backgrounds is a priority of the residence life program.
The University offers accommodations in four on-campus residence facilities, all of which are smoke-free environments and are supervised by Resident Directors, professional staff members who live in the halls. The three residence halls, Clark, Walter, and McCormick, each have lounges, storage areas, and coin-operated laundry. The halls are divided into smaller living units called "wings". Students in each wing vote on a variety of matters such as how to use activity funds or determining quiet hours. They are also involved in governance and judicial matters. There are also several Theme-Wings, such as the International Wing for students who want an even greater exposure to other cultures or the Environmental/Outdoor Wing for students who wish to actively participate in outdoor activities and/or environmental projects. Trained undergraduate Resident Assistants live in each wing and assist students with the transition with college, with personal and academic concerns, and in mediating and solving residence life problems. Tutors and Network Assistants are available in each hall. Students in these halls live in single, double, triple, quad rooms or suites.
The fourth residential area, Vandervelden Court, offers apartment-style living in 37 four-bedroom suites with living and cooking facilities in each unit. The facility is designed primarily for junior and senior undergraduate students and offers more independent living.

## Residence Policies

Because residence hall living is an important factor in the process of social and academic growth, it is necessary for all students to be aware of the policies that apply to living in the halls:

Freshmen and sophomores are required to live and board on campus unless:

1. they have graduated from high school at least two years prior to matriculation;
2. are married / or the parent of a dependent child;
3. are 21 years of age; or
4. live full-time with their parent(s) and/ or legal guardians.

Note: Criteria \#2 requires a residency waiver form on file. These forms are available through the Student Life Office.

Housing contracts are binding for a full academic year. Early releases are rare and must be approved by the Residency Options Committee.
Pacific University admits students with the understanding that they will uphold standards of community living. All students are expected to respect the rights and integrity of other members of the community. Conduct that is detrimental to the University community, that violates the Student Code of Conduct, or that transgresses civil law is grounds for disciplinary action. If a student is asked to leave the residence halls for disciplinary reasons, room and board fees will not be refunded.
New students receive housing information over the summer. New students applying for space in Vandervelden Court must submit a non-refundable $\$ 100$ housing application fee. Returning students select rooms in the spring of the preceding academic year through a lottery process, and must pay a $\$ 100$ lottery entrance fee in order to reserve their room for the following year. Returning students cancellation of a room reservation before June 30 will result in a $\$ 50$ refund; cancellation after June 30, will result in forfeiture of the entire $\$ 100$.

## Off-Campus Housing

The University owns some off-campus apartment complexes and rental houses that are available to upperclassmen. The Student Life Office does not provide off-campus housing placement but does have a Housing Network web site to assist students looking for housing off-campus and / or roommates. Extensive lists of apartment complexes and links to other housing resources are also present. The site provides individuals with an option to post information to the web if
they are looking for housing, seeking a roommate, or have a place to rent. Students who utilize the housing web site frequently find the information very helpful and many have secured housing from this site, so it is recommended that students start their searches here.
The University's housing web site address is www.pacificu.edustudentslife/housing.

## International Programs

The Office of International Programs serves as a campus liaison for all international students, scholars and staff in matters of immigration and support services. Both the Director and Assistant Director are well versed in F-1, J-1, H-1B regulations and can provide information regarding travel, general maintenance of immigration status, and work authorization both during and after studies in the U.S.

## Learning Support Services for Students with Disabilities

The Learning Support Services for Students with Disabilities Office is designed to arrange for specialized academic support services or modifications to the learning environment for students with disabilities. In general, the University will work with students to provide a variety of services that will accommodate their specific needs. The following services are available: test accommodations; extended test time; distraction free testing; test readers; alternative format; adaptive technology; text on tape; and notetakers. All services can be adapted to accommodate individual needs. The University requires appropriate documentation of a disability in order to better enable students to meet the established academic standards.
It is the responsibility of each student to inform the Director of Learning Support Services of his or her status and particular issues. Students are encouraged to work proactively with the faculty and staff in developing strategies for accommodation.
The University complies with the Americans With Disabilities Act of 1990 (ADA). Questions or complaints about University policy should be directed to the Dean of Students.

## Multi-Cultural Services

The Office of Multicultural Services is designed to assist students in dealing with issues concerning the multiplicity of cultures we have on the Pacific University campus. Spreading cultural awareness and understanding, integrating students from all cultures into the campus community, and celebrating diversity are the main concerns of this office. Students having questions, concerns, or suggestions for topics dealing with multi-cultural issues are encouraged to call or visit the office.

## Pacific Information Center (PIC)

The Pacific Information Center, commonly referred to as the PIC, provides efficient, reliable, accurate and quick service for the Pacific Community. This includes, but is not limited to, the University Switchboard, the Boxer Card (student ID), parking permits, phone cards, guest housing, summer housing, vendors, publications and brochures of University departments and programs, forms, general information, the sale of stamps, Tri-Met tickets and movie tickets, and Boxer Briefs. Computer terminals are provided outside the PIC for students to access the Web and their accounts. The office of the Director of the Pacific Information Center may be found here as well.

## OTHER UNIVERSITY SERVICES

## Alumni Relations

The purpose of the Pacific University Alumni Association, formed in 1892, is to extend and deepen the social and intellectual experience of student's years at Pacific, and to further the welfare of Pacific. All graduates of Pacific University and all former students having completed a year here and who have expressed a desire to retain ties with the University are considered members. The Alumni Relations Office provides services to the alumni of Pacific University including group travel opportunities, alumni gatherings and class reunions, as well as organizing events that bring current students and former students together for seminars, cultural events and social functions. For more information contact the Alumni Office in Marsh Hall, 503-352-2828 or alumni@pacificu.edu.

## Bookstore

The Pacific University Bookstore, located in the University Center and managed by Barnes and Noble College Bookstores, carries all required texts and supplies for course work, including those for professional students. The bookstore stocks both new and used textbooks, and buys back some textbooks at the end of each term. In addition, the bookstore sells some professional program equipment, office supplies, gifts, snacks, emblematic apparel and drug-store items.

## Business Office

The Business Office at Pacific University handles all cashier and accounting operations for the university. This is where students pay their tuition, fees, and any other charges which may be placed on the student account. Information on payment plans and refunds as well as short term and emergency loans can also be acquired at the Business Office. For more information about policies, payment plans, fees and other Business Office matters contact the Business Office.

## Campus Public Safety

Campus Public Safety (CPS) is responsible for overseeing the safety and security of the campus community and property. However, community members must also assume responsibility for their safety by exercising good judgment and personal responsibility. CPS is staffed 24 hours a day, 365 days a year. Officers provide assistance and educational programming in personal safety, dealing with emergencies, protection of personal property and other crime prevention and awareness programs. Campus Public Safety seeks to provide a reasonably safe environment at Pacific University through high visibility and close interaction with the campus community. An annual crime report is made available to all current and prospective students and employees of the University. If you are concerned about any person or situation, want to report an emergency or you need a safety escort, please contact CPS immediately at 503-352-2230 or by email at cps@pacificu.edu.

## Career Development Center

Located in Chapman Hall, the Career Development Center's mission is to provide students and alumni with the resources, support, and opportunities needed to realize their vision of career success and service to a changing community, nation, and world. The staff possess an exceptional complement of expertise, experience, and creativity in responding to student career needs. Students should take full advantage of the wealth of resources and programs here supporting career exploration and planning, job and internship search, graduate school search and applications, employer research, resume and interview preparation, and related topics. Just a few of the nearly 100 career programs offered each year include alumni career panels and internship fairs, as well as an annual spring career fair featuring over 150 employers in addition to representatives of graduate and professional programs. A few recent additions to the ever-growing program schedule: Sophomore Majorfest, which provides information in a creative format to assist with selection of majors and career options; Junior Jumpstart, a festive evening program featuring timely information on internships, graduate school preparation, and career exploration; and the Senior and Alumni Job Search Series, which brings these groups together for a series of evening programs featuring networking opportunities and professional seminars on job search. Figuring prominently among these resources as well is the Alumni Career Network, a database profiling about 1000 Pacific alumni interested in lending career networking assistance to students and graduates of the University. In concert with the faculty, the staff of the Career Development Center excel at working with students individually to ensure that they receive the very best career support and preparation possible to enable them to launch successful careers upon graduation.

## Financial Aid Office

The Pacific University Financial Aid Office assists students with securing funding for their attendance at Pacific. In this role, Financial Aid Office staff members provide financial aid information to prospective and continuing students and their families, determine financial aid eligibility for admitted students, and assist with coordinating the university's student employment program.

## Humanitarian Center

The Pacific University Humanitarian Center facilitates student access to service-learning opportunities for field placement and courses having a service component. Living groups, campus organizations, and individual students may also find assistance in developing or finding sites for volunteer projects. The Center's database contains more than 200 local organizations that utilize volunteers as well as community outreach programs coordinated through the Humanitarian Center itself.

Most of the Center's service placements are in local social service organizations, peace organizations, governmental agencies and public schools. Among the more popular placements are tutoring and mentoring youth, working with homeless and women's shelters, working with senior citizens, helping environmental agencies, teaching in literacy programs for Hispanic families, and sponsoring a variety of projects on the Navajo Reservation each January.
The purpose of the Humanitarian Center is to help Pacific students make a significant contribution to the community and integrate the learning from that experience in their studies and understanding of civic responsibility. Students who take advantage of a service learning placement also gain unique insight and experience related to careers and valuable life skills.

## Internship Program

Pacific University's Internship Program reinforces the University's commitment to an outstanding education and service to the surrounding communities. Recognizing the value of a healthy marriage between classroom and experiential learning, Pacific aggressively helps students to develop opportunities to apply knowledge and skills gained in the classroom to a professional work situation for a sustained period. Typically, internships are developed in concert by the student, a faculty advisor, a participating organization, and the Internship Coordinator. Internships are available in a variety of settings - large corporations, non-profit organizations, government agencies, and small businesses - depending on the needs of the student. The Career Center maintains a rich array of opportunities in collaboration with alumni and other professionals in the area, across the country, and around the world.

To be eligible for a for-credit internship, a student must have upper-division standing and normally at least a 2.7 GPA. Internships require careful and early planning with a faculty advisor and must be approved by the student's academic advisor, the department chair, and the Dean of Arts and Sciences. To receive academic credit, the student must first complete a learning contract, obtained in the Registrar's Office. Interns typically keep a daily journal analyzing work experiences and recording personal reflections, write a paper that integrates course material and on-the-job experience, assemble a portfolio of materials developed during the internship, and give a presentation on the internship to the Pacific community upon completion of the experience.
Both part- and full-time internships are available and carry one semester hour of credit for each 40 hours of work up to a maximum of 14 credits in any one semester. A maximum of 17 credits of internship may be counted toward graduation. For further information, students should contact the Career Development Center.

## Library

The Harvey W. Scott Memorial Library offers a welcoming atmosphere and a variety of information and research resources. The Library's collections include books, periodicals, and electronic databases, as well as government documents, videos, DVDs, and sound recordings. Library faculty and staff work regularly with students and faculty to assist them in locating, evaluating and using today's world of informa-tion-both traditional and electronic. While the Library strives to build strong, core collections, it also participates in area library consortia to meet the considerable research needs of our students and faculty. Through courier services and interlibrary loans, students and faculty can efficiently tap the research resources of our region and beyond.

## Malheur Field Station

Pacific University participates in Malheur Field Station as part of a consortium of 15 colleges and universities in Oregon, Washington and Idaho.
Malheur Field Station is located in the high desert country, 32 miles south of Burns, Oregon, on the western edge of the Malheur National Wildlife Refuge. An astounding
range of wildlife habitats in the region generates more than 840 species of vascular plants, 280 species of birds, and 50 species of mammals. Steens Mountain, a large fault block which rises to 9,700 feet, lies along the southeast boundary of the refuge. Desert landforms, outstanding volcanic features, massive uplifts carved by ancient glaciers, numerous 9,000 to 10,000-year-old archeological sites, cattle baron ranches, pioneer settlements, mines and ghost towns are just a few of the rich discoveries nearby.
The field station has dormitories and trailers, food service, laundry facilities, a store, laboratory and classroom facilities, a small library and a museum.
Courses in such areas a ethnobiology, ecology, natural history, biology, ornithology, geology, art, astronomy and photography are offered during the summer. Pacific students are encouraged to take classes for credit offered by Malheur Field Station. Information about classes and use of the field station is available from The Director, Malheur Field Station, HC 72, Box 260, Princeton, OR 97721, telephone 541-4932629, e-mail mfs@burnsnet.com. Information can also be obtained by visiting the web site at www.geol.pdx.edu/MFS.

## Oregon Campus Compact

In 1996, Pacific University joined with five other Oregon colleges and universities to form the Oregon Campus Compact, a division of national Campus Compact: Higher Education in Service to the Nation. This is an organization of college and university presidents committed to helping students develop the values and skills of citizenship through participation in public and community service.
Oregon Campus Compact has as its purpose to increase campus-wide participation in community and public service, and to integrate community service and/or service learning as valued elements of education. It is committed to enhancing a sense of personal and social responsibility, citizenship, and awareness of societal institutions and structures by all members of the academic community while reinvigorating higher education's concern for improving the quality of life in our society.
Faculty members, staff, and students may take advantage of ORCC services and resources including: technical assistance
for developing service learning courses and programs, mini-grants, a quarterly newsletter, resource library, and workshops on topics of interest in community service learning.

## Oregon Holocaust Resource Center

Established independently in 1984, The Oregon Holocaust Resource Center is a not-for-profit educational organization dedicated to communicating the lessons of the Holocaust to teachers, students and the general community in Oregon and southwest Washington, in fulfillment of the testament left by the victims to the survivors to remember, to record, to understand, to explain, and to enlighten future generations. The OHRC maintains curricular materials, the Sylvia Frankel Collection, the Shirley Tanzer Oral History Project, and is a repository for documents, photographs, letters, and other Holocaust artifacts. It also has a Speaker's Bureau that includes Holocaust survivors, refugees, liberators, and children of survivors, as well as scholars who go out to schools, exhibit sites, and other institutions around the Pacific Northwest.
The OHRC organizes a series of annual educational events which include teachers' workshops and seminars, the Sala Kryszek Writing and Art Competition, and the Middle and High School Holocaust Symposium. Center programs targeted at the general public include lectures by internationally known scholars, film presentations, plays, exhibits, and commemorative events such as Kristallnacht, the "Night of Broken Glass".
Pacific University recognizes and fully supports the importance of the work of the OHRC and, accordingly, the OHRC and Pacific joined in a mutual affiliation in 1994. The OHRC's office is located in Warner 25 on the main campus.

## Pacific Athletic Center and Intramurals

The home for athletic activities at Pacific is the newly remodeled and spacious Pacific Athletic Center (PAC). The PAC is available for all student use and houses a gymnasium with three activity areas, a state-of-the-art fitness center, a fieldhouse, three handballracquetball courts, saunas, dance studio and wrestling room.

Admittance to on-campus Boxer athletic events including basketball, soccer, volleyball and wrestling, are free of charge to all students, spouses and domestic partners, both undergraduate and graduate with a Pacific University Boxer Card. Pacific sports also include baseball, cross country, golf, softball, track and tennis.
Pacific University provides opportunities for participation in the sport of Handball at the club level. The club sports compete against club level programs from other institutions and in some cases, intercollegiate programs. The Handball Club annually send club players to the Intercollegiate National Tournament.
The Intramural Program provides the campus community with the opportunity to participate in athletic events on a nonvarsity level. Organization is provided for same sex and co-ed competition. Sports for the Pacific University student body include, but are not limited to: flag football, three-on-three basketball, volleyball, five-on-five basketball, soccer and softball.

## Pacific University's Museum (located in Old College Hall)

Old College Hall was built in 1850 and is the oldest permanent structure on the Pacific University campus. It is among the oldest collegiate buildings in the western United States. In 1894 it was moved from its original site where Marsh Hall stands and became Science Hall. Containing laboratories and classrooms for biology and chemistry, for many years it was fondly known as the "Chem Shack". Old College Hall was moved once again in 1963 to its present location.
This compact two-story building with its octagonal belfry or cupola is symbolic of pioneer efforts during territorial days. A significant structure for Oregon and the region, Old College Hall was listed on the National Register of Historic Places in 1974. A few years later, in 1980, a major renovation project was completed. The first floor area contains the Tualatin Academy Room and the Henry Price Memorial Chapel. Both of these spaces are used for special gatherings and events.
As part of Pacific's centennial celebration in 1949, the second floor rooms of Old College Hall were converted into museum galleries. The Pacific University Museum exhibits artifacts relating to the history of the

University. Many interesting objects donated by alumni and friends of the University are interpreted here. Personal items from founder Tabitha Brown and President Sidney Harper Marsh are among the collections on exhibit. Treasures from various foreign cultures are also featured in the museum, reflecting Pacific's missionary heritage.
Old College Hall is the oldest building continually used for education West of the Mississippi.
Visits to the Old College Hall Museum may be arranged by appointment through the Office of University Relations at 503-352-2211.

## Registrar

The Registrar's Office at Pacific University strives to provide excellent service to students, faculty and staff through maintenance of academic records and information, and course scheduling. The Registrar's Office is responsible for a number of services including: maintaining student academic records and carrying out course scheduling, enrollment changes and verification, degree evaluations, and informing students of their rights, responsibilities, and institutional procedures regarding academic regulations and confidentiality of student educational records. The Registrar's Office also provides students with easy access to their educational information, such as course schedules, grades, financial aid awards, billing information and transcripts. More information regarding the Registrar's Office services can be obtained from either staff in the Registrar's Office or from the office's web site at www.pacificu.edu/registrar/

## Service Center

The Service Center acts as the University's print shop and produces many of Pacific's print materials such as class handouts, department forms, and campus memos. At least two days should be given for small projects for students, which can be completed for a fee.

## Technology Information Center (TIC) (University Information Services)

The Technology Information Center (TIC) is operated by University Information Services (UIS). Resources are available to support the effective use of computing and information
technology to meet student academic needs. Some of the services that are managed through UIS include: computer assistance, data processing support, educational technologies, media services, online resources, technology training and 24 -hour student access computer labs.
Several computer labs are available at Pacific University offering both PC and Macintosh computers with various academic software packages as well as research and communication tools including e-mail, the World Wide Web, Telnet, FTP, and an international collection of academic reference material. Print resources are also available on a cost-per-copy basis.
The TIC provides answers to student, faculty and staff with technology concerns and questions over the phone, by e-mail and in person.

## Tutoring and Study Skills

All students who want assistance with their course work are encouraged to use the Writing Resource Center, House Tutors, and the Math/Science Center.

The Writing Resource Center, UC 104, provides free consultation service to students who require assistance with their writing tasks. Trained peer consultants are available on a drop-in system and appointment arranged with individual consultants. The Center is open to all students Sunday through Thursday evenings during the school year, with limited hours during Winter Three.
House Tutors also provide tutoring, in the Residence Halls, for a wide range of Arts and Sciences subjects, plus workshops on time management and study skills. Please contact the Writing Resource Center through Pacific University's home page www.pacificu.edu.
The Math and Science Center, located in Strain 322, provides free tutorial service to students from 7-10 pm every Sunday through Thursday. Qualified tutors are available on a walk-in, first-come, firstserved basis.

## University Relations

The Division of University Relations is located on the third floor of Marsh Hall and coordinates fundraising, alumni activities and university events for Pacific. University

Relations is responsible for public relations, including the dissemination of news and public information as well as print communications including the alumni magazine, Pacific; academic catalogs; and publicity brochures. The division also maintains contact with local and national media regarding happenings at Pacific, sends news of Pacific students to hometown media and operates a Speakers Bureau to facilitate faculty speakers for area civic groups. The annual Tom McCall Forum public affairs debate, the Performing Arts Series and Commencement are coordinated by University Relations staff.

## Upward Bound

Upward Bound is a Federally-funded college preparatory program that offers educational assistance to high school students. Since 1966, Pacific University's Upward Bound Program - the oldest in Oregon - has helped high school students develop the skills and motivation needed to succeed in college. The project provides academic skills courses; in-school contact; individual tutoring and counseling; college and career planning; cultural and educational activities; help applying to college and for financial aid; a six-week residential summer school; and experience in college classes for seniors.

## Web Based Information

Resources for Professional Students are abundant on the World Wide Web. The Pacific Library through its links with other library systems, can provide navigational tools for students to access information.
The following sites are recommended as starting points for seeking information:
Pacific's Home Page
www.pacificu.edu
Pacific's Graduate Studies Page
www.pacificu.edu/pphome/index.html
Pacific's Library Page
www.pacificu.edu/library/index.html
Pacific's Student Life Page
www.pacificu.edu/studentlife/
Pacific's Handbooks and Policies
www.pacificu.edu/policies
Please note, web pages are living documents. The addresses shown may change as services to students and others are improved.

# Faculty of Arts \& Sciences 

Edmond Alkaslassy (1993)
Assistant Professor of Biology
B.S., University of California at Los Angeles, 1989
M.A., Austin College, 1992

## K. Scott Baker (2002)

Assistant Professor of German
B.A., University of Oregon, 1990
M.A., University of Washington, 1994

Ph.D., University of Washington, 2002
Jeffrey G. Barlow (1994)
Professor of History, Matsushita Professor of Asian Studies
B.A., Southern Illinois University, 1964
M.A., University of Pittsburgh, 1965

Ph.D., University of California, Berkeley, 1973

## Michelle M. Baron (1999)

Associate Professor of Business Administration B.S., University of California, Santa Barbara, 1990
M.S., Stanford University, 1992

Ph.D., Stanford University, 1996
Vernon L. Bates (1975)
Professor of Sociology
B.A., University of Oregon, 1969
M.A., University of California, Davis, 1973

Ph.D., University of California, Davis, 1976

## Pauline Beard (1994)

Associate Professor of English
B.A., London University, 1978
M.A., SUNY Binghamton, 1981

Ph.D., SUNY Binghamton, 1986

## Thomas D. Beck (1991)

Dean of the College of Arts \& Sciences and Professor of History
B.A., University of California, Berkeley, 1965
M.A., University of California, Berkeley, 1966

Ph.D., University of California, Berkeley, 1972

Michael E. Boardman (1995)

Associate Professor of Mathematics
B.A., Western Washington University, 1985
M.S., Western Washington University, 1987

Ph.D., University of Oregon, 1992
Mark D. Bodamer (2001)
Assistant Professor of Psychology
B.A., Marquette University, 1981
M.S., Central Washington University, 1987

Ph.D., University of Nevada, Reno, 1997

## David Boersema (1985)

Professor of Philosophy, Douglas C. Strain Professorship in Natural Philosophy
B.A., Hope College, 1973
M.A., Michigan State University, 1978

Ph.D., Michigan State University, 1985

## Sara Steinert Borella (1993)

Associate Professor of French
B.A., Bates College, 1988

Ph.D., Brandeis University, 1993
Juliet Brosing (1987)
Professor of Physics
B.S., Humboldt State University, 1976
M.S., Florida State University, 1978

Ph.D., University of British Columbia, 1983

## Lorelle Lee Browning (1990)

Professor of English
B.A., University of California, Santa Barbara, 1972
M.A., University of California, Santa Barbara, 1980

Ph.D., University of California, Santa Barbara, 1986
Michael Burch-Pesses (1995)
Associate Professor of Music
B.S., University of the State of New York, 1989
M.M., The Catholic University of America, 1992
D.M.A., The Catholic University of America, 1995

## Kara Burnham (2002)

Assistant Professor of Biology
B.A., Baylor University, 1992
M.S., Baylor University, 1994

Ph.D., Texas Women's University, 1998

## Alyson L. Burns-Glover (1989)

Professor of Psychology
B.A., California State University, Long Beach, 1983
M.A., University of California, Davis, 1985

Ph.D., University of California, Davis, 1989

## Susan U. Cabello (1975)

Professor of Spanish
B.A., University of Arizona, 1966
M.A., University of Arizona, 1971

Ph.D., University of Arizona, 1978

## David Cassady (1984)

Associate Professor of Journalism B.S., Arizona State University, 1971
M.A., University of Iowa, 1977

Ph.D., University of Iowa, 1980

## Patricia B. Cheyne (1994)

Associate Professor of Art
B.F.A., University of Hartford, 1978
M.A., Wesleyan University, 1988
M.F.A., University of Colorado, 1992

## Nancy K. Christoph (1995)

Associate Professor of Spanish B.A., Williams College, 1986
M.A., University of California, 1990

Ph.D., Cornell University, (1995)

## Jayson Chun (2002)

Instructor of History
B.A., Georgetown University, 1988
M.A., University of California, Santa Barbara 1993

## Edwin S. Collier (1978)

Associate Professor of Theatre
B.S., Lewis and Clark College, 1964
M.S., Portland State University, 1970

Mingfen Cui (1999)
Instructor of Chinese
B.A., Yantai Teachers' College, 1981
M.A., Beijing Normal University, 1982
M.A., Zhengzhou University, 1988

James O. Currie Jr. (1972)
Distinguished University Professor of Chemistry
B.S., Ohio State University, 1965

Ph.D., University of Washington, 1970

## David DeMoss (1993)

Associate Professor of Philosophy
B.A., Oklahoma Baptist University, 1981
M.A., Baylor University, 1983

Ph.D., University of Virginia, 1987

## Andrea Doerfler (1999)

Assistant Professor of Sociology
B.A., Linfield College, 1986
M.S., Columbia University, 1988

## Russell A. Dondero (1974)

Professor of Politics and Government B.A., Whitman College, 1964
M.A., University of Minnesota, 1968

Ph.D., University of Minnesota, 1973

## Mary H. Fehrs (1979)

Professor of Physics
B.A., Wellesley College, 1966
M.A., Boston University, 1968

Ph.D., Boston University, 1973
Jim Flory (2002)
Assistant Professor of Art

## Lorely French (1986)

Professor of German
B.A., McGill University, 1979
M.A., University of California, LA, 1981

Ph.D., University of California, LA, 1986

## Naoya Fujita (1994)

Associate Professor of Japanese
B.A., University of Hawaii, Hilo, 1986
M.A., Ohio State University, 1988

Ph.D., University of Rochester, 1994

Linda B. Gallahan (1993)<br>Associate Professor of Psychology

B.S., College of Charleston, 1985
M.A., University of Southern California, 1990

Ph.D., University of Southern California, 1993

## Bogdana Georgieva (2001)

Assistant Professor of Mathematics
B.S., Lewis and Clark College, 1994
M.S., University of Oregon, 1997

Ph.D., Oregon State University, 2001

## Michael Geraci (1999)

Assistant Professor of Media Arts B.A., Pacific University, 1991

## Joel W. Gohdes (2002)

Assistant Professor of Chemistry
B.A., Carleton College, 1985

Ph.D., University of California, Berkeley, 1991

## W. Thomas Griffith (1967)

Distinguished University Professor of Physics B.A., Johns Hopkins University, 1962
M.S., University of New Mexico, 1964

Ph.D., University of New Mexico, 1967

## Christine Guenther (1998)

Assistant Professor of Mathematics
B.A., Stanford University, 1989
M.S., University of Washington, 1993

Ph.D., University of Oregon, 1998

Deke T. Gundersen (2000)
Assistant Professor of Environmental Science B.S., Indiana University Southeast, 1987
M.S., University of Louisville, 1990

Ph.D., Oregon State University, 1995

## Jamie R. Haag (2000)

Assistant Professor of Economics
B.A., University of Washington, 1991
M.A., University of Oregon, 1996

Ph.D., University of Oregon, 1996

## Stephen Hall (2000)

Assistant Professor of Physics
B.S., Worchester Polytechnic Institute, 1988

Sc., M., Brown University, 1991
Ph.D., Brown University, 1995

## George A. Harshbarger (1993)

Professor of Music
B.A., California State University, 1967
M.A., San Francisco State University, 1973
D.M.A., University of Washington, 1985

## Shawn Henry (1998)

Associate Professor of Exercise Science B.S.Ed., Montana State University, 1988
M.S., University of Montana, 1991

Ph.D., University of Oregon, 1995
Johanna Hibbard (2000)
Assistant Professor of Media Arts
B.A., University of Oregon, 1992
M.A., New School for Social Research, 1995
M.A., University of Iowa, 1998
M.F.A., University of Iowa, 2000

## Michelle Hribar (1999)

Assistant Professor of Mathematics and Computer Science
B.A., Albion College, 1991
M.S., Northwestern University, 1994

Ph.D., Northwestern University, 1997

## Kazuko Ikeda (1983)

Associate Professor of Japanese
B.A., Portland State University, 1981
M.A., Portland State University, 1985

Ph.D., University of Oregon, 1992

## Richard I. Jobs (2001)

Assistant Professor of History
B.A., Murray State University, 1991
M.A., Murray State University, 1994

Ph.D., Rutgers University, 2001

## Kevin E. Johnson (1994)

Associate Professor of Chemistry, Thomas J. and Joyce Holce, Professorship in Science B.A., Stanford University, 1983
M.S., University of Washington, 1987

Ph.D., University of Washington, 1991

## William T. Jordan (1976)

Professor of Chemistry
B.A., Portland State University, 1964
M.A., Portland State University, 1968

Ph.D., University of Pittsburgh, 1972

## Perrin Kerns (2002)

Assistant Dean of Arts and Sciences
B.A., University of Oregon, 1986
M.A., University of Oregon, 1991

Ph.D., University of Oregon, 1998

## Shereen Khoja (2002)

Assistant Professor of Computer Science
B.S., King Abdul Aziz University, 1997
M.S., University of Essex, UK, 1998

Ph.D., Lancaster University, UK, 2002

## Erica KleinKnecht (2002)

Assistant Professor of Psychology
B.A., Western Washington University, 1995
M.S., Western Washington University, 1997

Ph.D., University of Arkansas, 2000

## Chris Lane (1999)

Assistant Professor of Mathematics
B.A., University of Oregon, 1991
M.S., University of Oregon, 1993

## Brandi Langsdorf (2002)

Assistant Professor of Chemistry
B.A., Cornell College, 1993
M.S., University of Oregon, 1996

Ph.D., University of Oregon, 2001

## Terry Lass (2002)

Professor of English
B.A., University of Missouri-Columbia, 1974
M.A., University of Missouri-Columbia, 1975

Ph.D., University of Missouri-Columbia, 1986

## Lawrence M. Lipin (1992)

Professor of History
A.B., University of California, Davis, 1978
M.A., University of California, LA, 1981

Ph.D., University of California, LA, 1989

## Pamela T. Lopez (1993)

Associate Professor of Biology, Thomas J. and Joyce Holce, Professorship in Science
B.S., Columbus College, 1980

Ph.D., University of California, LA, 1990

## Cheleen Mahar (1994)

Professor of Anthropology
B.A., University of Northern Colorado, 1967
M.A., University of Illinois, 1972

Ph.D., Massey University, 1986

## Marc Marenco (1988)

Associate Professor of Philosophy and Religion B.S., California State University, Chico, 1975
M.Div., Yale University, 1982
D. Phil., University of Oxford, 1992

## Marlene Martinez (1999)

Assistant Professor of Biology
B.S., University of California, Davis, 1990

Ph.D., University of California, Berkeley, 1998

## Samuel Mathies (1998)

Assistant Professor of Media Arts and Director of Forensics
B.S., University of Wisconsin, 1986
M.A., California State University, Northridge, 1990

## N. Charles O'Connor (1985)

Professor of Business Administration
B.S., University of Northern Colorado, 1972
M.A., University of Iowa, 1976

## Terry Fischer O'Day (1998)

Assistant Professor of Art
B.F.A., University of Illinois, 1982
M.F.A., Arizona State University, 1985

## Jodi Paar (2000)

Assistant Professor of Chemistry
B.A., University of Nebraska, 1990
M.Ed., Northern Arizona University, 1993
M.S., Cornell University, 1998

Ph.D., Cornell University, 2000
Darlene Pagán (2001)
Assistant Professor of English
B.A., Aurora University, 1992
M.A., Illinois State University, 1994

Ph.D., University of Texas, Dallas, 2000

## Sarah R. Phillips (1995)

Associate Professor of Sociology, Director of Honors
B.A., Whitman College, 1986

Ph.D., University of Minnesota, 1993
Kathlene Postma (2000)
Assistant Professor of English
B.A., Northern Michigan University, 1986
M.A., Northern Michigan University, 1988

Ph.D., University of Wisconsin, Milwaukee, 1993

## Martha Rampton (1994)

Associate Professor of History
B.A., University of Utah, 1979
M.A., University of Utah, 1988

Ph.D., University of Virginia, 1998
Gabriella Ricciardi (2002)
Assistant Professor of French and Spanish
M.A., University of Bari, 1975
M.A., University of Oregon, 1981

Ph.D., University of Oregon, 1992

Elena Rodríguez (2000)
Instructor of Spanish
B.A., Universidad Autónoma de Barcelona, 1996
M.A., Universidad Autónoma de Barcelona, 1999
M.A., Portland State University, 2001

Victor M. Rodríguez (1996)
Associate Professor of Spanish
B.A., Universidad de Puerto Rico, 1982
M.A., Brown University, 1987

Ph.D., Brown University, 1993

Jennifer Roney (2002)
Assistant Professor of Management
B.A., University of California, LA., 1981
M.A., San Diego State University, 1988

Ph.D., University of Utah, 1996

## Philip J. Ruder (1994)

Associate Professor of Economics
B.A., Dartmouth College, 1983
M.S., University of Wisconsin, Madison, 1991

Ph.D., University of Wisconsin, Madison, 1994

## Douglas J. Ryan (1983)

Professor of Computer Science
B.A., University of Northern Colorado, 1980
M.S., Colorado State University, 1983

Lori S. Rynd (1981)
Professor of Biology
B.S., University of Washington, 1970
M.S., Oregon State University, 1975

Ph.D., Oregon State University, 1979
Sheryl Sanders (1998)
Assistant Professor of Anatomy
B.A., Asbury College, 1985

Ph.D., University of Kentucky, 1989
Lisa Sardinia (1996)
Associate Professor of Biology
B.S., Whitworth College, 1979

Ph.D., Montana State University, 1985
J.D., Hastings College of Law, 1996

Jon Schnorr (2000)
Assistant Professor of Biology
B.A., University of Chicago, 1990

Ph.D., University of Washington, 1997

## Philip K. Schot (2001)

Associate Professor of Exercise Science B.A., Pacific Lutheran University, 1983
M.Ed., Western Washington University, 1986

Ph.D., University of Oregon, 1991
Todd Schultz (1996)
Associate Professor of Psychology
B.A., Lewis and Clark College, 1985
M.A., University of California, Davis, 1987

Ph.D., University of California, Davis, 1993

## Jeffrey G. Seward (1990)

Associate Professor of Politics and Government B.A., University of Texas, Austin, 1969
M.A., University of Washington, 1981

Ph.D., Stanford University, 1994

## Jan Shield (1971)

Professor of Art
B.A., Whitworth College, 1967
M.F.A., University of Oregon, 1969

## Steve R. Smith (1999)

Instructor of English, Coordinator of First-Year Seminar, Director of the Resource Center
B.A., University of Utah, 1978
M.A., Portland State University, 1997

## John Suroviak (2000)

Associate Professor of Business Administration
B.A., Trinity College, 1973
M.S., University of Hartford, 1976

## Michael R. Steele (1975)

Distinguished University Professor of English, Director of the Humanitarian Center, Executive Director of Oregon Holocaust Research Center B.A., University of Notre Dame, 1967
M.A., Michigan State University, 1971

Ph.D., Michigan State University, 1975
Byron D. Steiger (1974)
Professor of Sociology
B.S., University of Oregon, 1966
M.S., University of Oregon, 1972

Ph.D., University of Oregon, 1976

## Timothy Stephens (1993)

Associate Professor of Music
B.M., University of New Mexico, 1975
M.M., University of New Mexico, 1977
D.M.A., University of Colorado, Boulder, 1984

## Robert E. Stockhouse II (1976)

Distinguished University Professor of Biology B.S., Colorado State University, 1969

Ph.D., Colorado State University, 1973

## Tim Thompson (1994)

Associate Professor of English
B.A., University of South Florida, 1985
M.A., University of South Florida, 1988

Ph.D., Emory University, 1996

## Scott Tuomi (1993)

Assistant Professor of Music
B.M., University of Southern California, 1981
M.S.T., Portland State University, 1993

Ph.D., University of Arizona, 2002

## Mariana Valenzuela (2002)

Instructor of Spanish
B.A., New Mexico State University, 1993
M.A., New Mexico State University, 1995

## Robert Van Dyk (1994)

Associate Professor of Politics and Government B.A., Duke University, 1986
M.A., University of Washington, 1989

Ph.D., University of Washington, 1995

## Doyle Walls (1989)

Associate Professor of English
B.A., Wayland University, 1975
M.A., Baylor University, 1979

## Richard V. Whiteley Jr. (1986)

Professor of Chemistry
A.A., Santa Ana College, 1972
B.S., California State University, Long Beach, 1974

Ph.D., University of Nebraska, 1978

## Faculty of Library

Nancy Ann Henderson

Associate Professor and Sciences \& Health Sciences Librarian
B.A., University of Southern California, 1976
M.L.S., University of California LA, 1978
M.A., Portland State University, 1994

## Lynda Larremore

Electronic/ Information Services Coordinator
A.A.S., College of Southern Idaho, 1979
B.B.A., Boise State University, 1983
M.L.I.S., Brigham Young University, 1990

## Alex Toth

Associate Professor / Associate Librarian B.A., Portland State University, 1973
M.L.S., University of Oregon, 1975

## Richard J. Wiener (1995)

Associate Professor of Physics
B.A., University of California, Berkeley, 1978
M.S., University of Oregon, 1988

Ph.D., University of Oregon, 1991

## Christopher Wilkes (1996)

Professor of Sociology
B.A., University of Canterbury, 1975
M.A., University of Canterbury, 1976
M.A., Stanford University, 1977

Ph.D., Stanford University, 1982

## Faculty Emeriti

Amy Beaupre

Professor of Music
B.M., Pacific University, 1933

## Ramendra K. Bhattacharyya

Associate Professor of Mathematics
B.S., Calcutta University, 1951
M.S., Calcutta University, 1953

Ph.D., Stanford University, 1964

## Edward J. Buecher

Professor of Biology
B.A., St. Anselmís College, 1960
M.A., Indiana University, 1962

Ph.D., University of California, Davis, 1968

Jane B. Carmichael

Associate Professor of Optometry B.A., Mississippi State, 1936
O.D., Southern College of Optometry, 1945

## Richard T. Carter

Professor of Biology
B.S., Portland State University, 1963
M.S., Oregon State University, 1968

Ph.D., Oregon State University, 1973

## Florence S. Chino

Associate Professor of Music
B.M., MacPhail College of Music, 1942
B.S., Bemidji State College, 1945
M.M., Eastman School of Music,

University of Rochester, 1948

## Margaret Y. Chou

Associate Professor of Mathematics
B.A., National Taiwan University, 1961
B.A., University of Oregon, 1966
M.A., University of Montana, 1968
M.B.A., Portland State University, 1983

## Michael C. Clock (1967)

Professor of Mathematics
B.S., Lewis and Clark College, 1957
M.S., Oregon State University, 1961

Ed.D., Oklahoma State University, 1967

## Robert A. Davies

Professor of English
A.B., University of Massachusetts, 1952
M.A., University of Michigan, 1953

## Jane L. Ellis-Horner

Professor of Education
M.A.T., Lewis and Clark College, 1965

## George G. Evans

Distinguished University Professor of English B.A., Beloit College, 1956
M.A., Northwestern University, 1957

Ph.D., University of Oregon, 1966

## Grazio Falzon

Professor of Romance Languages
B.A., Malta University, 1959

Licent., Malta University, 1959
J.C.D., Lateran University, 1963

## Joseph K. Frazier

Professor of History
B.A., Reed College, 1950

Albert M. Freedman<br>Professor of Music<br>B.M., VanderCook School of Music, 1938<br>A.B., Central College, 1939<br>M.M., Roosevelt University, 1947<br>D.M.E., Indiana University, 1972

## Alfred Furie

Professor of Optometry
B.S., Pacific University, 1958
O.D., Pacific University, 1960

## Leigh Hunt Jr.

Professor of Political Science
B.A., Yale College, 1947
M.A., University of Minnesota, 1949

Ph.D., University of Minnesota, 1968

## William T. Jordan

Professor of Chemistry
B.A., Portland State University, 1964
M.A., Portland State University, 1968

Ph.D., University of Pittsburgh, 1972

## Marshall M. Lee

Professor of History
B.S., Whitman College, 1967
M.A., Claremont Graduate School, 1969

Ph.D., University of Wisconsin, Madison, 1974

## Leonard Levine

Distinguished University Professor of Physiology and Pharmacology
B.S., Rutgers University, 1950

Ph.D., Columbia University, 1959

## Nira Levine

College of Optometry
Director of Student Services,
Professor of Psychology
B.S., Hunter College, 1953

Ed.D., University of Virginia, 1969

## William Ludlam

Professor of Optometry
B.S., Columbia University, 1953
M.S., Columbia University, 1954
O.D., Massachusettes College of Optometry, 1964

## James V. Miller

President Emeritus
B.A., Indiana Central College, 1942
M.Div., United Seminary, 1946

Ph.D., Boston University, 1955
LL.D., Otterbein College, 1972
LL.D., Indian Central College, 1979

## Gary V. Mueller

Professor of Art
B.S., University of Oregon, 1957
M.S., University of Oregon, 1962
M.F.A., Cranbrook Academy of Art, 1971

## John L. Neff

Professor of Dance
Indiana University, 1947
Edna McRae School of Dance, 1951
Gertrude Shurr-May O'Donnell School of
Modern Dance, 1955
School of American Ballet, 1955

## William E. Preston

Clinical Professor of Optometry
B.S., Pacific University, 1952
O.D., Pacific University, 1958

## W. Steve Prince

Professor of English
B.A., University of California, Santa Barbara, 1950

Ph.D., Yale University, 1954

## A. Richard Reinke

Associate Dean of Academic Programs, Associate Professor of Optometry
B.S., Pacific University, 1951
O.D., Pacific University, 1952

## Niles Roth

Professor of Physiological Optics \& Optometry B.S., University of California, 1955
M. Opt., University of California, 1956

Ph.D., University of California, 1961

## Fred Scheller

Professor of Speech and Communications
B.A., Pacific University, 1943
M.A., Pacific University, 1954

Ph.D., University of Oregon, 1959

## Donald O. Schuman <br> Professor of Optometry

O.D., Illinois College of Optometry, 1948

## Richard D. Septon

Professor of Optometry
B.A., Concordia College, 1956
O.D., Pacific University, 1960
M.S., Indiana University, 1968

## Miles M. Shishido

Distinguished University Professor of Religion and Philosophy
A.B., University of Hawaii, 1947
D.B., Federated Theological Faculty, 1948
A.M., University of Chicago, 1963

Ph.D., University of Chicago, 1967

## Seth Singleton (1984)

Professor of Politics and Government
A.B., Harvard College, 1962
M.A., Yale University, 1963

Ph.D., Yale University, 1968

## H. Joe Story

Distinguished University Professor of Economics
B.A., University of California, Santa Barbara, 1959
M.A., San Francisco State College, 1968

Ph.D., University of Oregon, 1975

## Truman Teeter

Professor of Chemistry
B.S., Oregon State University, 1942
M.S., University of Oregon, 1949

Ph.D., University of Oregon, 1954

## Don C. West

Professor of Optometry
O.D., Southern College of Optometry, 1949
B.S., Pacific University, 1961

## Telephone Directory

Pacific University
2043 College Way
Forest Grove, OR 97116 USA
503-357-6151
877-PAC-UNIV (877-722-8648)
Academic Vice President ....... 503-352-2215
Admissions ............................. 503-352-2218
Alumni Relations ..................... 503-352-2211
Business Office ........................ 503-352-2231
Career Development Center .... 503-352-2877
Catalogs ................................... 503-352-2218
Conference Services ................. 503-352-2111
Dean of the College of
Arts and Sciences ................... 503-352-2201
Dean of Students ............................ 352-2212
Education, School of .................. 503-352-2205
or Eugene Campus ............ 541-485-6812
Financial Aid and
Scholarships ......................... 503-352-2222
Information Services .............. 503-352-2944
International Programs .......... 503-352-2913
Library .................................... 503-352-2204

Academic Vice President ....... 503-352-2215
Admissions ............................. 503-352-2218

Alumni Relations .................... 503-352-2211
Business Office ....................... 503-352-2231
Career Development Center .... 503-352-2877
Catalogs .................................... 503-352-2218
Conference Services ................. 503-352-2111
Dean of the College of
Arts and Sciences ................... 503-352-2201

Dean of Students ............................ 352-2212
Education, School of ...................503-352-2205
or Eugene Campus ............ 541-485-6812
Financial Aid and
Scholarships ............................ 503-352-2222
Information Services .............. 503-352-2944

International Programs .......... 503-352-2913
Library
503-352-2204
Occupational Therapy,
School of ..... 503-352-2203
Optometry, College of ..... 503-352-2202
Pacific Information Center (PIC) ..... 503-352-3174
Physical Therapy, School of ..... 503-352-2846
Physician Assistant Studies, School of ..... 503-352-2898
President's Office ..... 503-352-2214
Professional Psychology, School of ..... 503-352-2240
Public Affairs/Events ..... 503-352-2211
Registrar ..... 503-352-2793
Student Life/
Residential Programs ..... 503-352-2200
Study Abroad ..... 503-352-2913
Transcripts / Records ..... 503-352-2793
Tuition/Fees/ Payment of Bills ..... 503-352-2128 ..... or 2231
University Relations ..... 503-352-2211

## Academic Calendar 2002-2003

2002 FALL SEMESTER

## August

August 19-20 Faculty Conference
August 21 International Student Orientation

August 22 Residence Halls Open for Freshmen, 7 am

August 22 New Student Orientation Begins
August 24 Residence Halls Open for Returning Students, 10 a.m.

August 25 Food Service for Residence Hall Students Opens for Dinner
August 26 Classes Begin
August 30 Last Day for New Student Registration

## September

## September 2 Labor Day No Classes

September 9 Last Day to Add Courses

September 9 Last Day to Drop Courses With No Record

## October

October 4 No classes for College of Arts and Science

October 29 thru
Nov 16 (tentative)
Advising for Winter III and Spring Semester

## November

November 4 Last Day to Withdraw from Courses

November 27 Food Service Closes after Lunch

November 27 Begin Thanksgiving Holiday, Noon
November 28, 29 Thanksgiving

## December

December $1 \begin{aligned} & \text { Food Service Opens } \\ & \text { for Dinner }\end{aligned}$
December 3 Last Day of Classes
December 4 Reading Day

## December

5, 6, 9, 10, 11 Final Examinations
December 11 Residence Halls Close, 9 p.m.

December 11 Food Service Closes after Dinner

## 2003 WINTER III

January
January 5 Residence Halls Open for Returning Students, noon

January 5 Food Service Opens for Dinner

January 6 Winter III Term Classes Begin

January 8 Last Day to Add Courses

January 8 Last Day to Drop Courses With No Record

January 17 Last Day to Withdraw from Courses

January 20 Martin Luther King Day
January 26 Reading Day
January 27 Winter III Final Exams
January 30 Residence Halls Open for Returning Students, Noon

January 31 Fall Graduation Date

## 2003 SPRING SEMESTER

January 30 International Student Orientation

January 31 New Student Orientation

## February

February 3 Spring Classes Begin
February 7 Last Day for New Student Registration

February 14 Last Day to
Add Courses
February 14 Last Day to Drop Courses With No Record

## March

March 21 Food Service Closes after Dinner

March 24
thru 28 Spring Break
March 30 Food Service Opens for Dinner

## April

April 7 thru 29
(tentative) Advising for Fall Semester

April 11 Last Day to Withdraw from Courses

April 23 Senior Projects Day (no Arts and Science classes)

May 13 Last Day of Classes
May 14 Reading Day
May
15, 16,
19, 20,
21 Final Examinations
May 21 Residence Halls Close for Students Not in Commencement, 9 p.m.
May 21 Food Service Closes for Residence Hall Students after Dinner

May 24 Commencement
May 25 Residence Halls Close for Students in Commencement, Noon

## 2003 SUMMER TERM

May 28 Classes begin for Term I
Classes conclude on the date printed in the class schedule

## June

June 23 Classes begin for Term II
Classes conclude on the date printed in the class schedule

July 21 Classes begin for Term III
Classes conclude on the date printed in the class schedule

## OFF CAMPUS

- SCHOOL OF PHYSICIAN ASSISTANT STUDIES
3201 19th Avenue, Suite F, Forest Grove
- SCHOOL OF EDUCATION/EUGENE CAMPUS
40 E Broadway, Suite 250, Eugene
RESIDENTIAL STREET PARKING
When using parking spaces in
front of houses please be courteous.
Forest Grove is located just 25 miles
west of Portland. While it may look further,
we recommend you take the Highway 26 route. Visitor parking permits are available in the Pacific Information Center in Washburn Hall/ University Center (\#15 on map).
Deynolds Soccer Field Clark Hall (student housing)
- Facilities Engineering
University Apartments (student housing)
Municipal Swimming Pool
Pacific Athletic Center \& Field House
Vandervelden Court
(student apartments)
Holce Tennis Courts
English Language Institute
World Languages House
Chapman Hall
- Career Development
- International Programs
Knight Hall
- Office of Admissions
Abigail Scott Duniway House Upward Bound
Drake House - Center - Facilities Management 0
0
0
0
0
0
0
0
0
0
- Service Center
The Creamery Building
- Milky Way
- Pacific Outback
chool or prors
- Human Resources

9. Landscaping and Custodial Offices
Facilities Engineering Storage
Barbara E. Story Memorial Garden Tuality Student Health \& Counseling Abbott Center



## Index

A
Academic Advising ..... 175
Academic Conduct Policies ..... 178
Academic Policies and Procedures ..... 171
Academic Programs ..... 26
Academic Progress ..... 174
Accounting ..... 44
Accreditation and Memberships ..... 3
Activity Courses ..... 24
Admission as a Freshman ..... 13
Admission as a Transfer Student ..... 13
Admissions Expenses ..... 17
Advanced Placement ..... 175
Alumni ..... 185
Anthropology, Sociology and ..... 152
Appeals ..... 181
Applied Science ..... 27
Art ..... 28
Astronomy ..... 54
Athletics ..... 33
Auditing ..... 172
B
Bachelor of Arts ..... 22
Bachelor of Science ..... 24
Bioinformatics ..... 35
Biology ..... 36
Bookstore ..... 186
Business Policies on Tuition and Fees ..... 17
Business and Economics ..... 43
C
Calendar ..... 200
Campus Map ..... 202
Campus Public Safety ..... 186
Campus Visits ..... 14
Career Development Center ..... 186
Chemistry ..... 50
Chinese Studies ..... 89
Club Sports ..... 34
Coaching ..... 74
College of Arts \& Sciences Mission Statement ..... 9
Computer Science ..... 96
Communications, Media Arts and ..... 103
Cooperative Programs with OGI ..... 59
Counseling Center ..... 183
Creative Writing ..... 60
Curricular Goals ..... 22
D
Dance ..... 160
Dean of Students ..... 182
Degree Requirements ..... 22
Deposit Policy ..... 14
Disabilities, Support Services for ..... 185

## E

Earth Sciences ..... 54
Economics, Business and ..... 43
Education ..... 54
Electrical Engineering ..... 59
Engineering ..... 58
English ..... 60
English Language Institute ..... 12
Entering the University ..... 13
Environmental Studies Program ..... 66
Exercise Science ..... 72
든
Faculty ..... 191
Feminist Studies ..... 78
Film Production ..... 104
Finance ..... 44
Financial Aid ..... 19
Food Service ..... 183
Forensics ..... 182
French ..... 162
G
Geology ..... 54
German ..... 163
Grade Change ..... 174
Grade Reports ..... 174
Grading Policies ..... 173
Graduate Schools and Policies ..... 10

## H

Harvey W. Scott Memorial Library ..... 12
Health Services ..... 183
History ..... 80
Humanitarian Center ..... 187
Humanities ..... 86
I
Incompletes ..... 173
Insurance ..... 17
Integrated Media ..... 104
International Baccalaureate Degree ..... 176
International Programs and Study Abroad ..... 88
International Students ..... 14
International Studies ..... 93
Internship Program ..... 187
Intramural Sports ..... 34, 188
Introduction to the University ..... 8
J
Japanese ..... 162
Journalism ..... 104
L
Learning Support Services for Students with Disabilities ..... 185
Library ..... 187
Literature ..... 62
Loans ..... 21
M
Malheur Field Station ..... 187
Management ..... 48
Map ..... 202
Marketing ..... 49
Mathematical Sciences ..... 96
Measles Vaccination Policy ..... 171
Media Arts and Communications ..... 103
Mission of Pacific University ..... 8
Monthly Payment Plan ..... 16
Music ..... 111
Music Programs ..... 119
Museum ..... 189
N
Normal Load, Overloads ..... 172Occupational Therapy .......................... 121
Optometry and Visual Science ..... 122
Oregon Campus Compact ..... 188
Oregon Holocaust Resource Center ..... 188
Overseas Programs Winter III ..... 92
P
Pacific: An Overview ..... 8
Pacific Athletic Center ..... 189
Pacific Information Center (PIC) ..... 185
Pacific University's Museum (Old College Hall) ..... 189
Pass/No Pass Option ..... 173
Past Due Accounts ..... 18
Peace and Conflict Studies ..... 125
Philosophy ..... 127
Physical Therapy ..... 131
Physician Assistant Studies ..... 134
Physics ..... 136
Political Science ..... 143
Politics and Government ..... 141
Pre-Physicans Assistant ..... 134
Pre-Medical Studies ..... 146
Pre-Occupational Therapy ..... 121
Pre-Physical Therapy ..... 131
Psychology ..... 147
R
Readmission ..... 14
Readmission After Suspension ..... 175
Registrar ..... 189
Registration Requirements ..... 171
Religion ..... 129
Repeated Courses ..... 173
Retro-Active Credit ..... 174
Room and Board ..... 15
ROTC ..... 176
S
Satisfactory Academic Progress ..... 174
Scholarships ..... 20
Service Center ..... 189
Short-term Loans ..... 18
Social Work ..... 153
Sociology and Anthropology ..... 152
Speech Communication ..... 106
Spanish ..... 162
Spanish for Elementary Teachers ..... 164
Sports Medicine ..... 74
Statement of Student Rights and Responsibilities ..... 178
Student Activities ..... 182
Student Employment ..... 20
Student Government ..... 182
Student Media ..... 183
Students' Rights Under the Family Educational Rights and Privacy Act (FERPA) ..... 176
Study Abroad ..... 88
Summer Sessions ..... 175
Suspension and Probation ..... 174
T
Technology Information Center (TIC) ..... 189
Telephone Directory ..... 199
Theatre ..... 158
Transcripts ..... 174
Transfer Credits and GPA ..... 174
Tuition and Fees ..... 15
Tuition and Fee Payment Option ..... 16
Tutoring and Study Skills ..... 190
U
University Officers and Trustees ..... 4
University Relations ..... 190
University Services and Resources ..... 182
Upward Bound ..... 190
V
Veterans' Educational Benefits ..... 175
Video Production ..... 104
Visual Science ..... 122
W
Web Based Information ..... 190
Withdrawal and Refund Policy ..... 18
World Languages and Literatures ..... 161

NOTES
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$


[^0]:    Engw 206 Introduction to Creative Writing, Poetry
    An introduction to writing poetry. Prerequisite: College writing skills core requirement met. 3 hours. Walls.

