## Seattle University

# 1999-2000 Bulletin of Information Undergraduate 

Seattle University

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The university reserves the right to change the fees, rules and calendar regulating admission and registration, instruction in, and graduation from the university and its various divisions and to change any other regulations affecting the student body. Changes go into effect whenever the proper authorities so determine and apply not only to prospective students but also to those who at that time are matriculated in the university. The university also reserves the right to discontinue courses at any time.

As a general rule, students follow the academic programs contained in the Bulletin of Information in effect at the time of their matriculation. However, students who withdraw from the university for four consecutive quarters or more are subjected to the requirements for their school and major and for university core curriculum in effect at the time that they are readmitted.

Seattle University complies with federal, state, and local laws, and regulations pertaining to civil rights and equal-opportunity employment. The university does not discriminate on the basis of sex, race, color, national origin, religion, age, martial status, Vietnam era verteran status, or sexual or political orientation. The university does not discriminate against persons who are handicapped or disabled and the university will make reasonable accommodation for such handicaps or disabilities, unless to do so would cause an undue hardship.

The university complies with all applicable laws requiring affirmative action in employment. All university policies, practices, and procedures are administered in a manner consistent with Seattle University's Catholic Jesuit identity.

Inquiries relating to these policies may be referred to the university's assistant vice president for human resources and affirmative action officer.

Information concerning graduate programs may be obtained in the Graduate Bulletin of Information.

## For more information:

| Admissions Office <br> (206) 296-5800 | General Information <br> (206) 296-6000 |
| :--- | :--- |
| Toll-free <br> (800) 426-7123 | www.seattleu.edu <br> admissions@seattleu.edu |
| Financial Aid Office | Mail |
| (206) 296-5840 | Admissions Office |
| Residential Facilities 0ffice | 900 Broadway |
| (206) 296-6274 | Seattle, WA 98122-4340 |

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## General Information

## Purpose and Scope

Seattle University's purpose is to foster the discussion, interpretation and transmission of knowledge, ideas and values. The university is dedicated to the extension of the frontiers of knowledge by critical and exhaustive investigation and experimentation. Providing thorough, intelligent training in theory and principles, Seattle University prepares students for professional careers and a lifetime of service.
Well into its second century of educational service, Seattle University is dedicated to its historical mission of:

- teaching and learning
- education for values
- preparation for service
- growth of persons

As a comprehensive institution of higher learning, Seattle University brings this four-fold mission to bear on all its activities and programs, its relations with its students, its own community of educators, and with the various publics it serves.
Conducted under the auspices of the Society of Jesus (the Jesuits), Seattle University supports Christian ideals and values. It affirms the belief in the unity and totality of all human knowledge, whether experiential, speculative, or divinely revealed. As a community inspired with the Spirit of Christ, the campus atmosphere inside and outside the classroom encourages an unbiased, truly liberated, and enlightened intelligence in its faculty and student body.

## History

Founded in 1891, Seattle University has offered a value-based education in the Jesuit tradition for more than a century. The university's development into one of the Northwest's leading centers of higher education is closely woven with the history of Seattle and the Puget Sound area. It is a story of relentless effort to serve the educational needs of a growing metropolitan community and its surrounding region.

Seattle University had a humble and unpretentious beginning. In 1890, Father Aegidius Junger, bishop of what was then called the Nisqually Diocese, concerned over the lack of educational opportunity for Catholic youth in the Seattle area, sent repeated requests to the Jesuits of the Rocky Mountain Mission territory to establish both a parish and a school in the young city. In response to the intrepid bishop's appeals, Fathers Victor Garrand and Adrian Sweere arrived from the Yakima station in the spring of 1891.

The two Jesuits immediately leased St. Francis Hall, a building that had been constructed at 6th and Spring in downtown Seattle the previous year by Father Francis X. Prefontaine, the area's first resident priest. Rededicating the building as the Parish and School of the Immaculate Conception, aided by two Holy Names sisters serving as full-time teachers, the good fathers began their modest educational effort.

With the advice and assistance of Father Prefontaine, the mission procurator purchased property that ultimately became the present campus. In 1893 , the cornerstone of the first building was laid and the new parish and school was opened for classes in September 1894.

In 1898 articles of incorporation were filed changing the parish school for boys into Seattle College. In the face of the still prevailing frontier mentality that saw little need for higher education other than in the professions, a college department in humanities was instituted in 1900. The first three graduates were awarded bachelor of arts degrees in 1909.

A temporary casualty of World War I, college classes at Seattle College were suspended from

1918 to 1922. In 1919, the successful high school department moved to a new seven-acre campus on Interlaken Boulevard, a gift of Thomas C. McHugh. On its reinstatement, following the war, the college department was also housed at the new campus. Three baccalaureate degrees were granted in 1925.

In 1931, with an enrollment of fewer than 50 students, Seattle College returned to a partially renovated building at the present Broadway and Madison campus. Within two years, women were enrolled in credit courses, and in 1936, the first women received their degrees. Just prior to that, the first professional degree program was established with the introduction of the School of Education. In 1937, the college was fully accredited by the Northwest Association of Secondary and Higher Schools. The School of Nursing was officially opened in 1940, and theSchool of Engineering in 1941.

Returning World War II veterans in 1945 discovered the newly established School of Commerce and Finance, Seattle College's fifth major academic unit. By 1948, the enrollment in all programs neared 3,000 students. That year an amendment to the articles of incorporation officially changed the institution's name to Seattle University.

Rapid expansion of both the physical boundaries and educational facilities of Seattle University marked the decades of the 1950s and 1960s. With just three permanent buildings and three war surplus structures in 1950 , the university added or converted 12 major buildings over the next 20 years. Most of the development occurred under the direction of Father A.A. Lemieux, president of the university from 1948 to 1965.

The curriculum then expanded with new programs including the School of Science and Engineering (1972), the doctorate in educational leadership (1976), and Matteo Ricci College (1977).

The 1980s brought master-level programs in software engineering and psychology, along with a baccalaureate degree in computer science and programs in communication studies and international business.

New academic programs introduced since 1990 include a master in teaching degree, master's degree programs in student development and in adult education and training, bachelor's degrees in international studies and biochemistry, and the region's only bachelor's degree in civil engineering with an environmental track. The Albers School of Business and Economics initiated master's programs in finance, applied economics, and international business and added operations management as an undergraduate business option. The School of Nursing instituted a master of science in nursing in 1992, and the School of Law joined the professional schools in fall 1994.

The 1995-96 academic year brought an English/Creative Writing major and minor, a specialty in manufacturing engineering, a new multidisciplinary bachelor of arts degree in ecological studies, as well as an executive master's degree in not-for-profit leadership, the first of its kind in the United States.
Created in July 1996, the School of Theology and Ministry diversifies the graduate theology program that began in 1985. This school houses institutes for both Catholic and ecumenical theological studies.

## Organization

As an independent, coeducational institution, Seattle University is incorporated under the laws of the state of Washington and operated by its own board of trustees. The university, administered under the auspices of the Society of Jesus, is one of 28 Jesuit institutions of higher education in the United States. Seattle University derives its tradition and objectives from the academic experience and educational ideals of the Society of Jesus and the Christian tradition.

The university is composed of eight major academic units:

## College of Arts and Sciences

The college is comprised of 12 undergraduate departments: Communication/Journalism;

Ecological Studies; English/Creative Writing; Fine Arts; Foreign Languages; History; Military Science; Philosophy; Political Science/Public Administration; Psychology; Sociology/Criminal Justice; and Theology and Religious Studies. Program divisions include: addiction studies, honors, international studies, liberal studies, prelaw, and premajor. The college also offers a master's program in psychology and houses the Institute of Public Service, which includes graduate programs in not-for-profit leadership and public service.

## Albers School of Business and Economics

The school offers undergraduate degrees in accounting, economics, finance, international business, management, marketing, and operations, and an individualized major in business administration. Post-baccalaureate and post-graduate certificates are offered by the graduate division in addition to master's degrees in applied economics, business administration, international business, and finance.

## School of Education

The graduate degrees offered by the School of Education qualify students for teaching certificates, principal's certificates and counseling certificates issued by the Office of the Superintendent of Public Instruction. The master in teaching program offers teacher preparation in conjunction with a graduate degree.

## School of Law

In 1994 Seattle University became the 14th Jesuit university to include a law school. Formerly the University of Puget Sound School of Law, the 20 -year-old school has a fine reputation for excellence in teaching law. With 800 students and 39 full-time faculty members, it is the largest law school in the Northwest and has the most diverse student body. The School of Law offers a juris doctor degree.

## Matteo Ricci College

This is the three-year university phase of a program that integrates high school and university level studies, enabling students to complete their high school education and a university bachelor degree in six or seven years, rather than eight.

## School of Nursing

A baccalaureate degree in professional nursing is offered, which qualifies students for registration through state licensure. Registered nurses who intend to complete requirements for the bachelor of science in nursing degree are also admitted to the program. A master of science in nursing offers advanced clinical training for practicing nurses.

## School of Science and Engineering

The school includes the biology, chemistry, computer science/software engineering, diagnostic ultrasound, general science, mathematics, and physics departments, as well as civil and environmental engineering, electrical engineering, and mechanical/manufacturing engineering. A master's program in software engineering is also offered.

## School of Theology and Ministry

Seattle University established the School of Theology and Ministry (STM) in 1996. STM consists of two institutes: The Institute for Catholic Theological Studies and the Institute for Ecumenical Theological Studies. Through these institutes students earn graduate degrees in pastoral ministry, spirituality, and divinity. The Catholic Institute is a joint effort with the Archdiocese of Seattle and the Ecumenical Institute works with ten denominations and two associations. Both institutes prepare women and men for lay as well as ordained ministry.

## Summer School

Undergraduate students may enroll in a variety of summer school courses offered in
intensive formats, in seven- and eight-week terms, and during intersession, which begins after the conclusion of regular summer offerings.

## Accreditation

Seattle University is accredited by, and is a member of, numerous academic and professional bodies.

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The university is accredited by:
Northwest Association of Schools and Colleges
Accreditation Board for Engineering and Technology
American Chemical Society
Association of Theological Schools
Commission on Accreditation of Allied Health Education Programs
    (Diagnostic Ultrasound)
International Association for Management Education (formerly AACSB)
National Council for Accreditation of Teacher Education
National League for Nursing
The university is approved by:
American Medical Association
American Society of Clinical Pathologists
Washington State Board of Education
Washington State Board of Nursing
The university is a member of:
American Association of Colleges of Nursing
American Association of Colleges for Teacher Education
American Association of Collegiate Registrars and Admissions Officers
American Association of Higher Education
American Council on Education
Association of American Colleges
Association of Catholic Colleges and Universities
Association of Governing Boards
Association of Jesuit Colleges and Universities
Council for Advancement and Support of Education
Independent Colleges of Washington
Institute for International Education
NAFSA: Association of International Educators
National Association of College Admission Counselors
National Association of Independent Colleges and Universities
National Association of Intercollegiate Athletics
National Intramural and Recreation Sports Association
National League for Nursing
The College Board
Washington Council on High School-College Relations
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## Campus

With the natural splendor of Puget Sound providing a breathtaking backdrop, Seattle University offers all the educational advantages of a metropolitan-area college. The 46 -acre campus on historic First Hill is nestled on the edge of downtown Seattle.

The campus is growing to serve the needs of 5,800 students and 400 faculty members. The Centennial Fountain, designed by George Tsutakawa, is located in the center of campus. The fountain and Quadrangle provide a favorite open-air meeting place for the campus community. In the Thomas J. Bannan Center for Science and Engineering, teaching and research laborato-
ries feature state-of-the-art equipment for undergraduates. The Bessie Burton Sullivan Skilled Nursing Residence is an integral part of the service orientation of the campus, allowing nursing students to develop skill in the care of older persons.

Admissions, Financial Aid, the Registrar and Controller, Human Resources, Public Safety, and the Book Store are under one roof in the University Services Building.

The Connolly Center, an indoor sports and recreation facility, features two swimming pools, basketball, badminton, tennis, and racquetball courts, a weight room, and dance area. All home games for the men's and women's basketball teams are played on the north court and the center is headquarters for Seattle University's intramural program.
A new addition to the Pigott Building, which houses the Albers School of Business and Economics, opened in fall 1994, and the remodeled main building opened fall 1995. A newly remodeled Loyola Hall houses the School of Education, and the Garrand Building-the university's historic first building-re-opened in 1994 as the new home for the School of Nursing. The School of Law moved into its new building in fall 1999.

In April 1997, Seattle University dedicated its first free-standing chapel to St. Ignatius of Loyola. The architecture catches the sense of Ignatian inspiration as "light from above" that is both illuminating toward truth and empowering toward service. A large reflection pool at the entrance mirrors the colors of the sky by day and the lights of the chapel at night. A fifty-two foot tower encloses two bronze bells named for the Jesuit spiritual director, Bl. Peter Faber and the Northwest missionary sister, St. Francis Xavier Cabrini.

## Lemieux Library

Constructed in 1966, A.A. Lemieux Library is the university's library with centralized collections and facilities, access to remote electronic resources, and professional services providing information, instructional, and research support to all of SU's academic programs. The library offers an on-line catalog running the Sirsi Unicorn system, a gateway module which connects users to text-based Internet resources, and a World Wide Web (WWW) site providing access to a growing number and variety of electronic information resources. The catalog, gateway, and web pages are accessible from any computer linked to the campus network. The library houses a growing collection of 210,000 volumes, 2,500 current print periodical and serial subsctiptions, 500,000 microforms, and a variety of media materials. Lemieux Library currently offers 15 CD-R0M databases on site; the Unicorn gateway and library web page provide subscription access to 20 databases, including full-text and more than 140 electronic journals and related services. The on-line and CD-ROM resources support both general and specialized research.
In addition to its collections, the library is a service center. The reference and instructional services staff assists students in ways that range from personal instruction in the use of the catalog and web resources to advising on advanced, specialized research materials to the development of bibliographies. Classroom presentations are given throughout the year. To supplement its on-site collections and remote electronic resources, the library provides subsidized interlibrary loan and document delivery services as well as specialized database search services.

0 ther library services include a course reserve collection, a 24 -hour reading/study room, media carrels for using non-print materials, and self-service photocopiers. The library seats more than 800 people in open study areas, small-group conference rooms, and individual carrels.

## Teaching and Service

Teaching is the first priority of Seattle University and its faculty has distinguished itself through its commitment to teaching excellence. Courses are taught by highly qualified faculty
rather than by graduate students. Most full-time faculty have earned doctoral degrees and are active scholars, contributing to the advancement of their fields. Many have achieved national and international recognition, but teaching remains their primary commitment.

A Seattle University education can be put to work through internships as degree completion nears. The university's graduates are well-received by corporate, institutional, and publicsector employers.

Students from all majors are encouraged to expand their understanding of other countries and cultures by studying, working, or doing community service outside U.S. borders. University academic programs are available in Grenoble, France; Graz, Austria; Frankfurt/0der, Germany; Puebla, Mexico; Tokyo, Japan; and Taejon, Korea. Voluntary service opportunities are organized in India, in addition to dozens of local and regional projects.

## Student Development

The Student Development Division provides services, activities and programs that support students in their academic efforts, and enhance their social, emotional, cultural, physical, spiritual, and intellectual development. The division engages students in programs that encourage personal reflection and integration of learning both inside and outside the classroom. Specific student services are available to enrich the educational, social, spiritual, and community experience. Finally, the division prepares students for leadership and service in a pluralistic, world community.

The office of the vice president for Student Development provides the administrative leadership for the Student Development Division and serves as a source of information and assistance for many students.

As Seattle University's student government, the Associated Students of Seattle University (A.S.S.U.) offers services and programs for the campus community including sponsorship of club events, student locker rentals, advocacy for campus issues, and social activities. A.S.S.U. sponsors various activities including concerts, lectures, public forums, and music festivals.

The Campus Assistance Center (C.A.C.) serves as a convenient one-stop information, resource, and referral service on the first floor of the Student Union Building. The C.A.C. provides a variety of services including: student I.D. distribution, off-campus housing information, maintaining a rideshare board, poster/flyer approval, updating the campus master calendar, and publishing the "What's Happening."

Campus Life is committed to creating a vibrant center of student life and learning on campus. A variety of enjoyable social activities, events and programs help students create community with each other. In addition, through diverse programs and experiences, students are invited to learn about themselves, their communities, their leadership roles, and their life choices. The office also sponsors an annual leadership retreat that brings together diverse student leaders from across the campus. The areas within Campus Life include: the Center for Event Planning and Student Activities, Leadership and Service, New Student Programs, Residential Living, and Wellness and Prevention (please see each individual listing for more detail).

The Campus Ministry team develops faith community, provides pastoral care, reaches out to serve others, promotes social justice, and celebrates God's presence through worship and fellowship. Campus Ministers foster opportunities for personal and spiritual growth through educational offerings, international service experiences, and a variety of retreat programs.
Within the university's mission, Campus Ministry challenges students to integrate both intellectual and spiritual development. Persons of all faith traditions are welcome. We support the diversity and richness of faith traditions reflected in our university community.

The Chapel of Saint Ignatius provides a spiritual home for the university's Catholic faith community, with daily and Sunday liturgies. The Campion main and south chapels provide
worship spaces for denominational and ecumenical worship. The south chapel is a clean space available for religious services for non-Christian members of the Seattle University community. In addition, the Immaculate Conception Chapel, located on the second floor of the Administration Building, and the Saint Robert Bellarmine Chapel, located off the Bellarmine Residence Hall lobby, offer places of personal refuge and prayer.

The retreat programs are designed to provide progressive opportunities for self reflection. ESCAPE is a non-religious overnight experience to assist first year students in their adjustment to college life. SEARCH is a weekend retreat in the Christian tradition, which explores relationships with self, God, and others. AGAPE is a peer-led retreat in the Catholic tradition, for juniors and seniors, which takes a deeper look at faith commitment. SENIOR RETREAT helps graduating students reflect upon their SU experience, and look forward to their life after college. The Spiritual Exercises of St. Ignatius Of Loyola, provide three and five day silent retreat formats for experiencing Ignatian spirituality.

Campus Ministry invites students to engage in leadership and service informed by faith and values. Significant service and social justice opportunities through Campus Ministry include weekly meal preparation for families and homeless teenagers, prison visitation, daycare and family support at a shelter, and attention to residents of a skilled nursing facility. Soup With Substance engages the community in reflection upon current social issues in light of faith. International Reach Out programs to Belize, Mexico, and Nicaragua engage students in direct action and reflection upon world citizenship, global economics and social justice. Urban Plunge, Habitat for Humanity, local and spring break projects, and community organizing offer experiences to develop leadership skills in social action.

Each campus minister is available for pastoral counseling upon request. Faith formation processes for those seeking community, fellowship and increased opportunity to learn and grow in faith are available.

The Career Development Center offers career counseling appointments and personalized job search assistance, including resume writing, cover letters, interviewing skills and job search strategies. The center provides full-time job listings, internship listings, hosts employers who interview graduating students on campus, and sponsors career fairs to help students meet with employers of interest. Open to all students and alumni, career development services include:

- individualized career counseling
- Career Expo
- computerized career exploration
- Arts and Sciences Mentor Program
- career testing (Strong Interest Inventory, Myers-Briggs Type Indicator)
- resume preparation
- interview preparation
- campus interviews with employers
- full-time job and internship listings
- career resource library
- information on Internet sites for job listings, careers, and employers

The Center for Event Planning and Student Activities (C.E.P.S.A.), is an integral part of, and actively promotes a sense of community at, Seattle University. Recognizing and valuing cocurricular learning opportunities, C.E.P.S.A. seeks to provide a healthy balance between academic pursuits and campus activities. Through its programs, activities, services, and facilities, C.E.P.S.A. is dedicated to sustaining a dynamic campus environment that complements and enhances the overall educational mission of the university.
Located in the Student Union Building, C.E.P.S.A. includes the Associated Students of Seattle University, the Educational Programs Committee, the Campus Assistance Center, student clubs
and organizations, campus programming, event planning, and the Code of Student Conduct.
The Collegia Program was created to provide a "home away from home" for commuter students, providing a place for students to study, socialize, and relax. Each collegium is a unique homelike environment including a kitchen area, computer space, tables for studying, access to a telephone, and office supplies. An honor bar system makes drinks and snacks available. Each Collegium is staffed by a graduate student who provides a welcoming presence and is a resource to students. Commuter students are enrolled in the Collegia on a "first-come, first-served" basis; there is no fee.

Three rooms serve different populations. The Lynn Collegium, Lynn Building, is open to undergraduate commuter students in the College of Arts and Sciences. The Chardin Collegium, Xavier Hall, is a "mixed Collegium" serving undergraudate commuting students in the Schools of Nursing, Business, and Science and Engineering. The McNulty Collegium, Lemieux Library, is open to undergraduate Science and Engineering students during the days and weekends and welcomes commuter graduate students from all programs during late afternoon, evening, and weekend hours. For more information contact the Collegia staff office at (206) 296-2809.

The Counseling Center offers individual, couple, and group counseling to students who may be experiencing a variety of issues such as feelings of depression or anxiety, relationship problems, stress or life changes. The Counseling Center also sponsors various workshops offered throughout the school year on subjects such as stress management, assertiveness training, conflict resolution, life change adjustments, relationships, self-esteem, and other topics of interest to students. Counseling is available free of charge to enrolled students. All information regarding the counseling of a student is strictly confidential and released only by written consent of the student or when required by law.

The Culture and Language Bridge Program is designed to prepare non-native speakers of English for a productive academic career at Seattle University. The primary goal of the program is to provide admitted Seattle University students with the background in the American academic culture and language skills essential for success in their studies. The courses offered in the program are highly advanced, with a specific focus on university-level reading, writing, listening, and speaking skills. The program is offered during the fall, winter, and spring quarters. Courses for undergraduate students are not offered in the summer, and classes for graduate students are taught when there is sufficient need. The office is located in the Student Union Building, room 208. (See index of topics for location of Culture and Language Bridge courses.)

Disabilities Services is a component of the Learning Center which provides academic counseling, support, advocacy, and referrals for students with mobility, sensory, learning, health and psychological disabilities. This resource can help with aids and accommodations, such as testing adaptations, notetakers, books on tape, room changes, adaptive/auxiliary aids, and interpreters. Written documentation of a student's disability from a qualified professional must be submitted before accommodations can be provided. Copies of the Seattle University Section 504/ADA Policy and Appeal Procedure are available at the Learning Center.

The International Student Center serves 750 students from approximately 72 countries around the world. The center strives to enable international students to achieve success at Seattle University and through the contribution of their unique cultures and perspectives to enrich the entire university community. The International Center also serves as a focal point for activities and programs of a cultural, educational, or social nature, and as a gathering place for students and student organizations.

The Leadership and Service Office provides opportunities for students to engage in experiences that prepare them to be leaders well able to serve their communities. Students interested in service in the community can access a wide range of agencies, from those working with vulnerable populations to those specializing in environmental concerns. The office also
supports the service-learning program, linking academic coursework to the learning laboratory of the surrounding community. In addition, the office provides a variety of leadership programming for students, including workshops to develop leadership skills and opportunities to interact with prominent leaders in the area.

The Learning Center provides academic support and study skill enhancement to all Seattle University students. Experienced staff explore specific academic needs with each student. The Learning Center can provide tutors, learning style assessment and study skills instruction, as well as individual consultation to help design strategies to improve time management, reading comprehension, test preparation, test taking, and note taking.

The McGoldrick Student Center houses four departments: Campus Ministry, the Career Development Center, the Counseling Center, and the Minority Student Affairs Office. Also located in this building is the Peace and Justice Center.

The Minority Student Affairs Office focuses on the academic, social, and personal success of the ethnic American student through supportive counseling, leadership opportunities, and advising. To accomplish these goals the office supports, promotes, and offers programming that emphasizes understanding, respect, and appreciation of the cultural diversity within our campus community.

The New Student Programs Office sponsors programs each summer and throughout the year to facilitate the social and academic adjustment of new freshmen and transfer students. Major programs include the summer Step Ahead, Fall Orientation: Building for Success, Discovery Groups and New Student Speak Out. Modified orientation is also held during winter and spring quarters.

Student clubs and organizations at Seattle University offer students many opportunities to develop leadership skills, broaden their social and professional backgrounds, and contribute significantly to both the university and surrounding communities. A list of currently registered student clubs and organizations is available from the Center for Event Planning and Student Activities. Various opportunities include, but are not limited to: service clubs, scholastic honor societies, pre-professional organizations, and common interest groups.

The Student Health Center offers free consultation and medical treatment for enrolled students. A physician has daily scheduled office hours. There is no charge for many routinely dispensed medicines, but there may be a fee for some laboratory procedures. Most immunizations are available at no charge. Flu vaccines are dispensed at cost. All services are confidential and no information is released without student permission, unless required by law. Students under the age of 18 must have authorization for treatment signed by a parent or guardian. Student health insurance for accident and sickness benefits is available for students and their dependents in the university's voluntary student health insurance program.

The Student Union Building (S.U.B.) is a hub of campus activity, offering all members of the Seattle University community a place to eat, relax, socialize, meet friends, and study. The S.U.B. houses the Associated Students of Seattle University (A.S.S.U.), the Educational Programs Committee (E.P.C.), the Senior Class Committee, the Spectator (student newspaper), and KSUB (student radio station); as well as administrative offices for Student Development, Campus Life, the Center for Event Planning and Student Activities, Leadership and Service Office, New Student Programs, Wellness and Prevention, and the Culture and Language Bridge program. Also located in the S.U.B. are the Campus Assistance Center, the Chieftain dining area, a game room, a computer room, commuter student services, and student lounges.

University Food Services provides meals at four locations on campus. The Columbia Street Cafe is the main university dining room and is located in Bellarmine Hall. The Chieftain specializes in fast food, and is located in the Student Union Building. The Cave is a convenience store located in Campion Residence Hall. The Bannan Center for Science and Engineering and the Paccar Atrium house small food service carts offering coffee, espresso, muffins, donuts,
cookies, chips, and bottled beverages. In addition, the Paccar Atrium cart offers soup and prepackaged salads and sandwiches.

University Sports offers opportunities for students of all ages and skill levels. Seattle University is a member of the National Association of Intercollegiate Athletics (NAIA) and is in the process of applying for membership in the NCAA division II association. The university competes in soccer, basketball, tennis, cross country, and swimming for men and women, as well as women's softball and volleyball. The university places a high priority on its intramural, club, and recreational sports programs, and provides a wide variety of indoor, outdoor, and off-campus activities. The Connolly Center serves as the major sports facility for intercollegiate athletics, intramurals, and recreation activities. Indoor facilities include two full-sized gymnasiums for sports such as basketball, volleyball, and badminton; two swimming pools for all water sports; a weight room (Olympic and Cybex circuit) and exercise area; five racquetball courts and two squash courts; an astro gymnasium with Astroturf floor for activities such as tennis, jogging, and soccer; and saunas in the men's and women's locker rooms. Outdoor facilities include four tennis courts and a two-field complex for soccer, flag football, volleyball, softball, and jogging.

The Wellness and Prevention Center supports the campus community in making responsible wellness-oriented choices. Some of the primary issues addressed by the center include prevention of substance abuse, sexual assault and HIV/AIDS, as well as the management of stress. Programs and services include educational programs by staff and student peer educators, consultation and informational workshops, evaluation of the campus environment, policy support, and resource materials. Substance abuse services include consultation, referral, and the Choices education program for addressing personal alcohol and other drug decisions.

## Residential Facilities

## Residence Requirement

Seattle University requires full-time freshman and sophomore students under 21 to live in university residence halls unless they are married or living with parents.

## Residence Halls

There are three residence hall communities on campus, each with its own personality and traditions. Bellarmine Hall, centrally located on campus, houses 350 students. Campion Residence Hall is located on the south end of campus and houses 450 students. Xavier Hall is located at the north end of campus and houses 170 students.

Each hall offers quiet study areas, lounges, recreation rooms, kitchens, and a limited number of storage lockers. Students may choose traditional lifestyle floors, substance-free floor, quiet floors, over-21 floors, floors dedicated to health and wellness issues or to the freshman year experience.

Residence halls offer many opportunities for leadership development in residence hall student government, as a paraprofessional staff member or resident assistant, in activity preparation, and many other ways.

Each hall is staffed with a residence hall director, aided by two resident assistants plus one faculty or staff moderator on each floor.

In addition, Seattle University has apartments for single upper-division students, rented according to priority status.

For more information about all housing, visit the Residential Services Office, on the first floor of Bellarmine Hall, or call (206) 296-6274.

## Application for Residence Halls

Requests for on-campus student housing are made through the director of Residential Services. A deposit is required for reservations. See the Costs section of this bulletin for housing cost information. Cancellation of reservations must be received by the director of Residential Services no later than August 1, or the deposit will be forfeited. Residents who terminate their stay in university residence halls before the end of the academic year will be subject to financial penalties.

## Additional Student Services

Academic advising is coordinated through the various schools within the university by the deans and department chairpersons for each academic major. Adviser assignments are normally made during the fall orientation period.

Alumni of Seattle University may audit undergraduate courses for a nominal fee of $\$ 55$ per class, with permission from the instructor. To sign up for this unofficial audit, contact the Alumni Relations Office at (206) 296-6100. Other services available to alumni include discount membership at the Connolly Center; library privileges; career networking and jobplacement services; free subscription to the SUN, Seattle University's alumni magazine; McGoldrick Alumni Scholarships for undergraduate students whose parents or grandparents are alumni; and invitations to a wide variety of workshops, seminars and social gatherings in Seattle and other regional locations.
The Book Store is the source of all required textbooks and course-related supplies. In addition, it offers computers and software, and a selection of apparel and gift items with Seattle University imprinting. Other sections include greeting cards, snack foods, and sundries. Any book not in stock may be special ordered, film may be left for processing, and, at the end of each quarter, used books may be sold back for cash.

The Early Success Program is designed for freshmen who do not meet standard admission requirements but show academic promise. The program prepares students for the academic rigors of Seattle University by providing them with the opportunity to elevate academic skills in preparation for university admission. See program details in the index of topics.

The Office of Freshman Success supports and recognizes the academic success of freshman students. The office, in conjunction with the Freshman Council, also organizes social activities for freshmen. Freshmen can participate in workshops, the Mentor Program, and sponsored events where faculty and students interact outside the classroom. The office is a one-stop answer center for any and all questions that freshmen have as they navigate their first year of college.

The Patricia Wismer Women's Center is a campus office that advocates, educates, and is a resource for the entire Seattle University community about women's issues. In particular, the center focuses on the growth of women within Jesuit, Catholic, and feminist frameworks. In connection with its educational mission, the center provides forums, films, discussion groups, and speakers. Each spring quarter, it sponsors a series of events called Her Story. The center is located in Loyola 103 and houses an art gallery with monthly exhibits, and a reference and resource library. It is a comfortable drop-in place for meeting, eating, study, and networking. The center's director is available for consultation by appointment at 296-2144.

Public Safety provides 24 -hour security for the campus community and its facilities. Security personnel are available to assist students in a variety of ways, including first aid, escort services, crime prevention, lost and found, and assistance with vehicles with dead batteries or keys locked inside. Security persons are uniformed and easily recognizable should assistance be needed. For service or information, call (206) 296-5990 (24 hours). Emergency only, call 296-5911 (24 hours).

# Undergraduate Admission 

## Admission Policy

Regulations in this bulletin are supplemented by memoranda that set forth policy in greater detail. References to applicable policy statements are noted parenthetically. Copies of these policy memoranda may be obtained from the Registrar's Office.

The university's admission policy is administered by the provost and the dean of admissions. Acceptance of an admission offer implies adherence to the university policies and code of conduct. All academic documents submitted by applicants become the property of Seattle University. Students should refer to any specific school or departmental requirements in addition to the general admission requirements outlined in this section. This information is found in subsequent sections of this bulletin.

Seattle University selects students who have demonstrated the moral character and scholastic ability necessary to earn a degree here.

The dean of admissions reserves the right to withdraw admission for academic or personal reasons. An individual's past conduct, particularly as it may relate to unlawful or criminal behavior, may interfere with the university's ability to provide a proper learning environment. Seattle University reserves the right to deny admission or continued enrollment to individuals who have engaged in unlawful or criminal behavior. It is the student's responsibility to disclose in writing to the dean of admission any and all criminal convictions classified either as a felony or gross misdemeanor.

Undergraduate admission is available to qualified applicants for any of the four quarters of the academic year. All applicants must remit an application fee. Inquiries should be addressed to Undergraduate Programs, Admissions Office, Seattle University, Seattle, WA 98122-4460.

## Special Consideration

Students showing exceptional promise may in some circumstances be admitted without strict adherence to minimum entrance requirements. Admission decisions in these cases are made by the provost and the university's admissions review board.

Seattle University offers admission without regard to race, religion, age, gender, sexual orientation, handicap, or national origin. It does so in keeping with the laws and regulations as promulgated by federal agencies and Washington state.

Seattle University does not discriminate on the basis of handicap, in conformity with section 504 of the Rehabilitation Act of 1973, in admission or access to its programs and activities, or in its employment policies or practices. The vice president for finance and administration is the employee designated by Seattle University to coordinate its effort to comply with section 504 of the Rehabilitation Act of 1973.

This constitutes the official notice called for in Section 504, No. 84.8, Paragraph a

## Freshman Admission Requirements

Seattle University is committed to qualitative decision making based upon a review of applicants' backgrounds as a whole. Primary consideration is given to course selection and performance.

Preference in admission is given to entering freshmen who will have completed a minimum of 16 secondary units in core subjects to include:

- four units of English
- three units of college preparatory mathematics (typically algebra I, II, and geometry)
- three units of social science/history
- two units of laboratory science (three are preferred)
- two units of a foreign language
- two approved academic electives

Four units of mathematics and laboratory chemistry and physics are required for admission to engineering programs; for admission to nursing, two units of laboratory science are required, one of which must be chemistry.

The College of Arts and Sciences requires completion of one full year of a single foreign language for degree completion. College-level coursework must be taken if this requirement has not been completed in secondary school.

The middle 50 percent of enrolling freshmen typically have grade point averages between 3.2 and 3.9 (on a 4.0 scale). Admissions decisions take into consideration the strength of the academic program, individual course performance, and academic trend.

The General Equivalency Diploma (GED) may be accepted in lieu of a traditional secondary school diploma in some situations.

Applicants are required to submit scores from the American College Test (ACT) or the Scholastic Achievement Test I (SAT). Additionally, applicants must submit letters of recommendation from a teacher and a school counselor (three are recommended). Personal statements or essays are also required and are considered carefully during application review.

## Applications

Application forms can be obtained by contacting the Admissions Office, Seattle University, Seattle, WA 98122-4460. Seattle University also accepts the Common Application, the Uniform Washington State Application, the Catbolic College Admission Association Application, and Peterson's Universal Application.

## Freshman Admission Procedures and Timetable

## Financial Aid

Often the college application process coincides with completing the Free Application for Student Financial Aid (FAFSA). This form is usually available by November 14 for the following school year and should be submitted to the federal processor as soon after January 1 as possible. Please Note that the FAFSA must be submitted by February 1 in order to be given priority consideration for Seattle University institutional funds. Aid applications submitted after this date will be considered for any remaining funds. When completing the application it is important to remember to list Seattle University to receive this information. See Financial Aid section which follows for more information.

## Freshman Admission

Freshman applicants are required to complete an admission application and submit it with the following:

- Official high school transcript
- Official ACT or SAT I score reports (these will be accepted if recorded on the official high school transcript)
- Recommendation form completed by a school counselor
- Essay or personal statement
- Non-refundable $\$ 45$ application fee

The deadline for priority consideration for fall quarter admission is February 1.
Notification for fall quarter begins after December 1 of the preceding year and continues as space is available. Students whose records do not provide sufficient evidence of the ability to pursue baccalaureate college-level work may be notified that a final decision will not be
made until additional information is received.
Fall quarter freshman applicants for admission should apply by February 1. Applications submitted later are considered on a space-available basis only. All admission credentials should be postmarked by February 1 for fall quarter, and no later than one month before the beginning of winter, spring, and summer quarters.

## Advanced Placement

(Policies 75-16 and 75-17)
Entering students may seek advanced placement in college courses by taking the Advanced Placement (AP) tests of The College Board. More can be found about these tests from your secondary school counselor or the Educational Testing Service (ETS). At your request ETS will send test results directly to Seattle University. A score of three or better on an AP examination often earns college credit. Advanced placement or credit may also be granted on the basis of the subject examinations of the College Level Examination Program (CLEP) of the College Board. To receive course credit through CLEP, your official test results must be received by the Registrar's Office one month before the quarter you enroll.

## International Baccalaureate

The university grants course credit and advanced standing for upper-level subjects in the International Baccalaureate program passed with a grade of 5 or higher. Subsidiary level courses are reviewed on a case-by-case basis and may earn advanced standing recognition. Depending on performance, diploma recipients may receive up to one full year of credit.

## Early Admission

High school students with a grade point average of 3.3 or above (on the 4.0 scale) who are recommended by both their secondary school principal and their school counselor may be considered for enrollment after completing their junior year in secondary school. An admissions interview is typically required as well.

## Placement Examinations

Placement tests in mathematics and foreign languages are administered by the respective departments during orientation. Entering freshmen have the opportunity to show the extent of their preparation, and the departments can determine the level at which entering freshmen begin college work.

## Probationary Admission

Students accepted under probationary status must achieve regular status by the end of their first year or be dismissed from the university. Students on probation may be admitted to the school of their chosen area of study.

## Running Start Program

(Policies 75-16 and 75-17)
Students who have participated in a Washington Community College Running Start Program must submit community college transcripts as well as secondary school records. Transfer credits will be evaluated according to usual guidelines. (See Transfer of Credit from Other Institutions.)

The university will classify as first-time freshmen: a) all students who graduated from high school in the current year and have accrued 45 or fewer credits; and, b) students attending
college for the first time or who have fewer than 20 credits, regardless of when they graduated from high school.

Freshmen transfers are those who have graduated in any year other than the current one and have accrued 21 to 44 credits.

## Admission from Other Post-Secondary Institutions

(Policies 77-1 and 79-1)
A student who has established a satisfactory record at another accredited college or university may apply for admission with advanced standing at Seattle University. Applicants for transfer admission must:

1. Submit an application for admission, and an application fee of $\$ 45$, payable to Seattle University. (This fee is waived for applicants who have or will receive an associate of arts degree from a Washington state community college immediately prior to intended enrollment at Seattle University) Submit official copies of transcripts from each postsecondary institution attended. When applying for admission or readmission, failure to furnish all records from all post secondary institutions attended (regardless of whether attempted coursework was completed) places students under penalty of withdrawal of admission or immediate dismissal. The university has the option to declare credits not presented at the time of application as non-transferable.
2. Present a minimum 2.50 academic grade point average (or the minimum required by the specific school/college; consult appropriate sections of this bulletin) for post-secondary work attempted prior to transfer. Probationary admission could be an option with a 2.50 to 2.25 GPA. No transfer applicant will be admitted with a grade point average below 2.25 . Courses completed at C - (or 1.5 ) are transferable to fill core or electives, but unless graded C or higher, transfer courses cannot fill major requirements in many departments.
3. Transfer applicants who have completed less than 45 quarter or 30 semester hours of transferable credit at other postsecondary institutions must fulfill secondary school unit requirements for freshman admission. In such cases, an official secondary school transcript must be submitted also.
Transfer students suspended or dismissed at other institutions are ineligible for admission unless one calendar year has elapsed since dismissal or suspension. Admission may be considered at the end of this period. Two letters of recommendation are required in such cases.

When assessing records for admission, grades in non-credit courses are not counted. For work completed in postsecondary institutions in which academic standing is unknown/or for work with private teachers, admission and advanced credit is only granted upon examination. Examinations to establish credit for such work can only be taken after the completion of 15 credits in residence. (See Credit by Examination section of this bulletin.)

For guidance and registration, the academic evaluation unit in the Registrar's Office completes tentative evaluations of transfer credit at the time of admission. Evaluations are subject to the approval by the provost and the dean of the appropriate school. (See Transfer of Credit from Other Institutions in this bulletin for additional information.)

## Other Admission Standings/Requirements

Special requirements apply for the following applicants:

## Bilingual Students/Permanent Residents

Bilingual students and those who are permanent residents must submit Test of English as a Foreign Language (TOEFL) results if English is their second language, unless they have studied at U.S. high schools freshman through senior years and have Scholastic Assessment Test I (SAT) scores of 450 or higher or American College Test (ACT) English subscores of 22 or higher. All international applicants, however, must submit TOEFL results unless both coming from English speaking nations and having English as their first language.

## Elder Audit Program

People age 60 and over may audit classes on a space-available basis with the permission of the instructor and the department chair. Details may be obtained at the Registrar's Office.

## International Students

(Policy 76-6)
Specific admission requirements and procedures for international students are outlined in the university's undergraduate international student application form. These criteria differ from those applied to United States citizens.

## Non-Matriculated Students

(Policy 82-2, as revised February, 1997)
Admission as a non-matriculated student is allowed for the purpose of post-secondary or post-baccalaureate study which in not intended to culminate in a Seattle University degree. Students must be in good standing at recognized colleges or universities. Students are required to complete a special application and submit an application fee. As they are not matriculated, these students do not qualify for financial aid or academic counseling.

Credit is awarded for successful completion of courses taken by non-matriculated students, however, those courses will not be applied toward a degree or certificate until the student has applied and been accepted to a program of study as a matriculated student and petitioned the appropriate dean requesting that said credits apply toward program requirements. Completion of courses does not guarantee admission into a program of study.
Not all courses are open to non-matriculants. During the fall, winter, and spring quarters non-matriculated students will be admitted to courses on a space available basis after all matriculated students have had the opportunity to register (i.e. two weeks before the start of classes). During the summer term, non-matriculated students may register when registration opens for the term.

## Post-Baccalaureate Students

(Policy 82-2, as revised February, 1997)
Post-baccalaureate students seeking certificates, a second bachelor's degree, or graduate program prerequisite coursework must achieve an evaluated grade point average of at least 2.50 to be considered for admission. The evaluated grade point average is based upon the last 90 quarter credits of the bachelor's degree and any post-baccalaureate coursework.

## Financial Aid

Seattle University is pleased to offer a variety of strategies and resources aimed at helping eligible students meet the costs of education. Approximately 70 percent of undergraduate students receive assistance through grants and/or scholarships, work-study opportunities, or through low-interest loans.

The amount and types of financial aid a student may receive is based on their demonstrated financial need, academic achievement, leadership accomplishments, talents, and other personal characteristics. There are primarily two types of financial aid: need based and non-need based. Need-based aid is awarded after a careful review of the families income and assets and generally is a grant, work study, or loan. Non-need-based aid is awarded to a student based on high school achievement, talents, or other characteristics, and generally is a scholarship.

## Application Procedure

1. Apply and be admitted as a degree- or certificate-seeking student. Students who submit all admission materials by February 1, will be given priority consideration for financial aid.
2. Complete and submit the Free Application for Federal Student Aid (FAFSA) before February 1. Be certain to indicate the results should be transmitted to Seattle University by entering our Title IV code \#003790 in the appropriate section.
3. Students selected for verification by the federal processor must submit copies of their 1998 tax returns. Parents of dependent students selected for verification must also submit a copy of their return.
4. Transfer students who will enroll winter or spring quarter must submit copies of financial aid transcripts from all schools previously attended.
5. Based on a review of the materials submitted, some students may be asked to provide additional documentation.
6. After a careful review of all materials, students will be sent an award letter indicating the types and amounts of financial aid they are eligible to receive. Students must respond within 30 days to this letter or their aid will be canceled. New students are required to provide a $\$ 200$ deposit to the Admissions Office by May 1 to secure their place.

Please Note: Students must reapply each year for financial aid. Continuing students are not awarded aid until all required documents have been received. To help facilitate the process, students and parents are encouraged to keep a file of all information submitted including a copy of the original FAFSA.

## Eligibility for Federal Student Aid

Applicants for a Federal Pell Grant, Federal Perkins Loan, Federal Supplemental Educational Opportunity Grant, Federal Work Study, Federal Direct Stafford Loan, Federal Direct Parent Loan, or any other federal aid must meet the following criteria:

1. Demonstrate financial need.
2. Have a high school diploma, or a GED.
3. Enroll as a regular student in a degree or certificate program.
4. Be a U.S. Citizen or eligible non-citizen.
5. Maintain satisfactory academic progress as described later in this text.
6. Must not be in default on a student loan or obligated to repay federal aid.

Students with a bachelor's degree are not eligible to receive Federal Pell Grant or Federal Supplemental Educational Opportunity Grant funds. Those students enrolled in an undergraduate program less than half time are only eligible for Federal Pell Grants.

## Deadlines

To be given priority for financial aid funding, students must submit the FAFSA by February 1. Funding will be awarded on a rolling basis, students who submit the FAFSA after February 1 , will be awarded any remaining funding.

Anyone wishing any financial aid for the 1999-2000 academic year, should submit the FAFSA by February 1, 1999. Student's submitting data after February 1, 1999 will be considered on a funds available basis.

Students must complete the documentation required to support their application for financial aid according to the following schedule:

Fall Quarter Winter Quarter Spring Quarter Summer Quarter
To ensure funding will be available at the start of the quarter:

August 15 November 15 February 15 June 1
To receive any funding during the quarter:

November 1 February $1 \quad$ April $15 \quad$ June 30

* Summer quarter recipients must also be registered before summer funding will be awarded.


## Financial Aid Programs

Seattle University's Financial Aid Office attempts to combine different types of financial aid programs to create a financial aid package. We are required by law to coordinate the various resources a student may receive from all federal, state, private, and institutional agencies. The strategies used to package financial aid acknowledge that the basic responsibility for financing an education resides with the student and their family. The university provides assistance to help meet the difference between the cost of education and the family's resources. A student's package can be a combination of federal, state, private, and institutional financial aid programs.

The maximum amount of all resources cannot exceed the cost of education established by the university. The cost of education is revised annually and includes tuition, room, board, books, supplies, transportation, and personal miscellaneous expenses. For need based recipients, financial aid cannot exceed demonstrated need. Demonstrated financial need is defined as the cost of education less the family's contribution.

## Grants and Scholarships

Grants and scholarships are funds which do not need to be repaid. Grants are awarded based on the student's financial need, while scholarships are awarded based on academic or other criteria. Grants and scholarships are provided to assist with paying tuition charges. In addition to other criteria generally students must be enrolled full time each quarter in a degree program to be eligible. (Please review the Satisfactory Progress requirements outlined later in this text.) Scholarship recipients are expected to maintain a high level of academic achievement and in some cases are required to be involved in leadership activities on campus. It is, therefore, strongly recommended that scholarship recipients work no more than 20 hours per week while school is in session. Grants and scholarships are available from Seattle University resources to help undergraduate students obtain a bachelor's degree.

## Institutional Awards

Sullivan Leadership Awards are available to incoming freshman who have superior academic achievements combined with active leadership demonstrated during high school. Applications are accepted during the fall of each year. During November applicants are invited to campus to participate in the first round of selection. Approximately 25 finalists are invited
back during winter to present a speech and be interviewed by the selection committee. Six students each year are awarded a scholarship equivalent to tuition, room, and board.
Presidential, Trustees, Ignatian, Campion Scholarships are available for tuition to entering students who demonstrate high academic achievement. The Admissions Office reviews the student's application materials to determine eligibility. Awards range from $\$ 5,000$ to $\$ 11,000$. Scholarships are renewable provided the student maintains Satisfactory Academic Progress as defined later in this text.
Transfer Trustee, Loyola. and Bellarmine Scholarships are available for tuition to transfer students who demonstrate high academic achievement. The Admissions Office reviews the student's application materials to determine eligibility. Awards range from $\$ 3,000$ to $\$ 7,500$. Scholarships are renewable provided the student maintains Satisfactory Academic Progress as defined later in this text.

Regent's Awards are available for tuition to entering students from underrepresented populations. The university created this award to help enrich the diversity of the student population. For the 1999-2000 academic year the award will be $\$ 5,500$. An application is required and can be obtained by contacting the Admissions Office.

Honors Scholarships are available for tuition to entering students enrolling in the Honors Program.

Bannan Scholarships are available for tuition to students in degree programs in the School of Science and Engineering. Transfer students and upper division continuing students are eligible to apply for this award. Applications are available in the Dean's Office in the School of Science and Engineering.

SU Grants are available to students who demonstrate financial need. To be eligible, a student must be full time and maintain Satisfactory Academic Progress. Award amounts range from $\$ 500$ to $\$ 9,000$ for the $1999-2000$ academic year.

In addition, Seattle University is pleased to offer a variety of other grants and scholarships to students who participate in ROTC, are involved in Seattle University's student government or newspaper, demonstrate skill in music, and who participate in debate.

Endowed and Restricted Scholarships: Through the generosity of numerous benefactors and friends of the university, more than 100 scholarships are available to qualified students to help meet tuition expenses. In most cases, the applicant must have a minimum grade point average of 3.0 and be enrolled in a specific program. To be eligible students must be enrolled full-time. For most awards no application is required because each year the Financial Aid and Student Employment staff review all students to identify qualified applicants. For additional details contact the Financial Aid and Student Employment Office.

## Federal and State Grants

Federal Pell Grants are available to undergraduate students who demonstrate financial need. This grant is intended to serve the neediest students.

Federal Supplemental Educational Opportunity Grant (SEOG) are available to students who qualify for the Pell Grant and have exceptional financial need. Grants range from $\$ 300$ to $\$ 3,000$ each year at Seattle University.

Washington State Need Grants (WSNG) are available to assist needy students who are residents of Washington State.

Educational Opportunity Grants are available to entering transfer students who have completed an AA or AS.

ROTC Scholarships-Army, Navy, and Air Force scholarships are available to students who attend Seattle University. For more information contact the following:
Army-Military Science Department, Seattle University (206) 296-6430.
Navy-Professor of Naval Science, DU-40 University of Washington, Seattle, WA 98195. (206) 543-0170.

Air Force—Professor of Aerospace Studies, DU-30 University of Washington, Seattle, WA 98195. (206) 543-2360.

Veterans, Widows, War Orphans Education Assistance-Veterans (or spouses of deceased veterans) may receive educational assistance under terms of the GI Bill. For more details contact the Veterans Counselor in the Registrar's Office.

Veterans' Education Benefits-Programs of study at Seattle University are approved by the Washington State Higher Education Coordinating Board's State Approving Agency (HECB/SAA) for enrollment of persons eligible to receive educational benefits under Title 38 and Title 10 U.S. Code.

## Student Employment/Work Study

Work study positions are available on campus and in the community to help students meet their educational expenses. Students are awarded work study as part of their financial aid package. A student selects a job from the listings available at the Financial Aid and Student Employment Office. Students are not guaranteed positions; however, the Financial Aid and Student Employment staff are available to assist students seeking to work. After being interviewed and hired, the student is paid for hours worked. Because students are compensated after working hours, work study funding is not available at the beginning of the academic year to pay their university bill.
Federal Work Study provides part-time employment to students in on-campus and offcampus community service positions. To qualify, a student must demonstrate financial need and is limited to working up to 20 hours per week.
Washington State Work Study provides part-time employment to upper-division students in positions with employers off campus. To qualify, a student must demonstrate financial need and is limited to working up to 19 hours per week. Priority consideration is given to Washington residents who complete their financial aid file by March 1.

## Loans

Low-interest loans are an important way a student can invest in their future. Loans are awarded as part of a student's financial aid package.

Federal Perkins Loans are long-term, low-interest loan based on financial need. Students are awarded up to $\$ 1,500$ per year by Seattle University. No interest accrues and no payments are due until a borrower ceases to be enrolled at least half-time. The interest rate is fixed at $5 \%$ and repayment occurs over 10 years. Deferment and cancellation options are available. Eligible borrowers may receive a total of $\$ 15,000$ for undergraduate studies, or $\$ 30,000$ for combined undergraduate and graduate education.

The Federal Direct Education Loan programs offer long-term, low-interest loans awarded to students or parents. After Seattle University determines the eligibility for a Direct Loan, a promissory note is forwarded to the student or parent. The promissory note is returned to Seattle University's financial aid office with any other required documents. Generally, Federal Direct Education Loans are disbursed to the school in equal payments based on the number of terms as student is enrolled during the academic year. If a student plans to attend three terms the loan will be disbursed in three equal payments. Student borrowers must attend an entrance interview prior to receiving their first student loan.

The Federal Direct Stafford Loan program has two types of loans available: subsidized Direct Stafford Loans and unsubsidized Direct Stafford Loans. Subsidized Direct Stafford Loans are need-based loans made to students. The interest rate is based on the 91 -day T-Bill plus $3.1 \%$ not to exceed $8.25 \%$. While a student is enrolled at least half time interest does not accrue and principal payments are not required. Repayment begins six months after a student ceases to be enrolled at least half time. Freshmen may receive up to $\$ 2,625$ per year; sophomores up
to $\$ 3,500$ per year, and juniors and seniors up to $\$ 5,500$ per year. The student will be charged a fee of approximately $4 \%$ which will be deducted from each loan disbursement. Unsubsidized Direct Stafford Loans are non-need-based loans which have many of the same terms and conditions as the Subsidized Direct Stafford Loan. However, under this program, the student borrower is responsible for interest that accrues while they are enrolled in school. For dependent students the annual limits of the subsidized and unsubsidized loans cannot exceed the amount listed above. Independent students are eligible to borrow an additional $\$ 4,000$ for freshmen and sophomores, or $\$ 5,000$ for juniors and seniors. The aggregate maximum students may receive is $\$ 23,000$ for undergraduates and $\$ 65,000$ for graduate students.
Federal Direct Plus Loans are non-need-based loans available to the parents of enrolled dependent students. The interest rate is variable with a maximum of $9 \%$. Repayment begins 60 days after the loan is disbursed.
Federal Nursing Loan funds are available each year in limited amounts. Awards are made to junior, senior, and post-baccalaureate nursing students. The terms of these Nursing Loans are similar to the Perkins Loan.

Seattle University Loan is a "non-need-based" loan available to student borrowers. The interest rate is variable (for the 1998-99 school year, it was 8.34\%). Interest accrues while you are in school. Repayment of the loan begins four months after you leave school or drop below half-time enrollment. A credit check will be performed by the lender (First Marblehead, Bank of America). Students with a good credit history or with no credit history will qualify. There is a $5 \%$ fee that will be added to the loan amount borrowed. Prior to receiving these funds, you must sign a promissory note, which will be sent to you by the lender.

Gate Family Loan is a "non-need-based" loan available to parent borrowers. The interest rate is variable (for the 1998-99 school year, it was $8.26 \%$ ). Interest accrues while you are in school. Repayment of the loan begins four months after you leave school or drop below halftime enrollment. A credit check will be performed by the lender (First Marblehead, Bank Boston). There is a $5 \%$ fee that will be added to the loan amount borrowed. Prior to receiving these funds, your parents must sign a promissory note, which is available from the Financial Aid and Student Employment Office.

## Satisfactory Academic Progress Policy

To be eligible for financial aid at Seattle University, a student must maintain satisfactory academic progress which includes: 1) maintaining a minimum grade point average, 2) completing a minimum number of credits, and 3) completing a degree or certificate within a reasonable period of time. This requirement applies to the student's entire period of attendance at Seattle University, even though financial aid may not have been received. In addition, to the Financial Aid and Student Employment Office's satisfactory progress requirements, students must meet the progress requirements defined by their school or program outlined in the University's Graduate, Law School and/or Undergraduate Bulletin of Information.

Satisfactory progress is reviewed at the end of each Spring quarter. Students will be notified by the Financial Aid and Student Employment Office, if they have not maintained satisfactory progress, however, it is the student's responsibility to monitor his/her own progress.

## Undergraduate Need-Based Aid Requirements

Financial aid awards are based upon the student's anticipated enrollment status. The enrollment status for a student's award ( which appears on the Enrollment Status line of the Award Letter) determines the minimum number of credits that the student must complete in order to receive and remain eligible for the funding listed on the award letter. Students must
meet a minimum credit requirement each quarter and during the full academic year as defined in the chart below:

## UNDERGRADUATE NEED-BASED CREDIT COMPLETION REQUIREMENTS

| Enrollment Status | Minimum per quarter | Minimum per Year |
| :--- | :--- | :--- |
| Full-time | 12 | 36 |
| $3 / 4$ time | 9 | 27 |
| $1 / 2$ time | 6 | 18 |
| Less than $1 / 2$ time ${ }^{*}$ | all credits attempted | all credits attempted |

*This enrollment status applies to the Federal Pell Grant Program only.
Stafford Loan borrowers who drop below half-time enrollment status at any time will have their remaining loan canceled. They will need to reapply for the following quarters if additional loan funds are desired.

Alaska State Loan borrowers must successfully complete 12 credits per quarter.
WASHINGTON STATE NEED GRANT recipients must complete the number of credits each term for which they were awarded or they will be placed on probation. Failure to complete at least $50 \%$ of the credits attempted each quarter will result in the cancellation of subsequent disbursements. Satisfactory progress for State Need Grant recipients is monitored at the end of each quarter.

Incomplete grades, Withdrawals, Failed Classes and Audits do not count as complete, earned credits.

While some Federal and State aid is available to students enrolled less than full-time, Institutional grant recipients must be enrolled at full-time status each quarter to receive the funds.

## Undergraduate Need-Based Minimum Grade Point Average Requirements

Students must maintain a cumulative grade point average of 2.0 or greater. Scholarship recipients must maintain a higher grade point average defined below.

## Undergraduate Need-Based Maximum Time Frame Requirements

Students must complete their degree requirements within a reasonable and normal period of time. Students are eligible to receive federal and state financial aid until they have 1) attempted a maximum of 270 credit hours, or 2) completed all the course work to receive their degree. Students are eligible to receive institutional grants for four academic years. Transfer students will be eligible for institutional funds based on the class they are assigned upon evaluation by the Registrar's Office. (i.e. if they are assigned the class level of Junior, they will be eligible for institutional aid for two academic years).

Attempted credits are defined as: the number of enrolled credits as of the tenth day of each term attended at Seattle University, plus the number of accepted transfer academic credits. Incomplete grades, withdrawals, and failed classes do count toward maximum credits attempted. A repeated course will be counted as an attempted course each time the course is taken.

ADDICTION STUDIES CERTIFICATE STUDENTS are eligible to receive financial aid until they have attempted 39 credit hours.

## Academic Scholarship Requirements

## Undergraduate Academic Scholarship Completion Requirements <br> Enrollment Status Minimum per quarter <br> Full-time <br> Minimum per Year 45

Students receiving Seattle University academic scholarships including the Sullivan Leadership Award, Presidential, Trustees, Loyola, Bellarmine, Bannan, Campion and Ignatian must complete a total of $\mathbf{4 5}$ credits at Seattle University for the academic year. Students must be enrolled full time each quarter (i.e. 15 credits) to receive the scholarship funds.

REGENT'S AWARD recipients must complete 36 credits at Seattle University each academic year.

## Undergraduate Academic Scholarship Minimum Grade Point Average Requirements

Academic Scholarship recipients must maintain a 3.0 cumulative GPA each academic year to maintain scholarship eligibility.

REGENT'S AWARD recipients must maintain a 2.0 cumulative GPA each academic year to maintain award eligibility.

## Undergraduate Academic Scholarship Maximum Time Frame Requirements

Students must complete their degree requirements within a reasonable and normal period of time. Students who receive the Sullivan Leadership Award, Presidential, Trustees, Loyola, Bellarmine, Bannan, Campion, Ignatian, and Regents award are eligible to receive Academic Scholarships for four academic years. After four years it is expected the recipient will have completed all course work to receive their degree.

TRANSFER SCHOLARSHIP recipients will be eligible to receive institutional scholarships based on the class standing they are assigned upon admission and evaluation by the Registrar's Office. (i.e., a sophomore transfer will be eligible for three academic years).

## Graduate/Professional Students

Graduate/professional student must meet the same satisfactory progress requirements as the undergraduate students, with the following exceptions:

1) Minimum Grade Point Average-Each graduate program monitors the grade point average of its students. In general, students must maintain a minimum grade point average of 3.0.
2) Minimum credit requirement is the following:

## Graduate Need Based Credit Completion Requirements <br> Enrollment Status <br> Full-time <br> 3/4 time <br> $1 / 2$ time

Stafford Loan borrowers who drop below half-time enrollment status at any time will have their remaining loan canceled. They will need to reapply for the following quarters if additional loan funds are desired. Alaska State Loan borrowers must successfully complete 9 credits each term.

Incomplete grades, withdrawals, failed classes and audits do not count as complete, earned credits.

Law School Students should refer to the Law School Bulletin of Information for satisfactory progress requirements.
3) Maximum Time Frame-Graduate/Professional students must complete their degree requirements within a reasonable and normal period of time. Students are eligible to receive federal and state financial aid until they have 1) attempted a maximum of $150 \%$ of the credits required for their degree, or 2 ) completed all the course work to receive their degree. Attempted credits are defined as: the number of enrolled credits as of the tenth day of each term attended at Seattle University, plus the number of accepted transfer academic credits. Incomplete grades, Withdrawals, and Failed Classes do count toward maximum credits attempted

## Reinstatement of Eligibility Options

Students who are no longer eligible to receive financial aid because of lack of satisfactory progress have the following options to become reinstated:

1) Students may submit a letter of appeal to the Financial Aid Appeal Committee if they have extenuating circumstances. Letters of appeal will be reviewed for circumstances beyond the student's control which prevented the student from maintaining satisfactory progress. If the appeal is denied, the student will need to follow one of the other steps below for reinstatement.
2) The student will need to complete successfully a term of study (meet the minimum credit requirement and grade point average for the term) without financial assistance from Seattle University. The student must notify the Financial Aid and Student Employment Office once this course work is complete. If this course work is completed at another college, the student must provide the Financial Aid and Student Employment Office and the Registrar's Office with an official transcript from that institution. The course work must be transferable and must be completed with a minimum 2.0 grade point average.
3) The student may choose to attend the summer quarter (without financial aid except work study and SU Loan) immediately following the academic year in which the student did not meet satisfactory progress requirements.

If the student needs to take classes to meet the minimum credit requirements, the student will only need to complete successfully ( with a minimum 2.0 grade point average) the credits necessary to make up the deficit which caused the termination of eligibility.

If the student's cumulative grade point average is below the minimum, the student must earn adequate grades to bring the cumulative grade point average back to the required level.
4) Any student who has reached the limit of the maximum time frame and needs additional time to complete his/her degree, may submit a letter of appeal to the Financial Aid Appeal Committee for an extension. The appeal should explain why the degree could not be completed with in the time frame allotted and what additional time will be needed to complete the degree. The student will need to attach the Maximum Time Frame Appeal form available from the Financial Aid Office, and completed by his/her advisor to substantiate the appeal.
Note: Financial Aid reinstatement awards are based on available funds. Therefore student may not receive their original financial aid award.

## Refunds and Repayments

This text describes the process used to refund financial aid including Title IV federal funding. For complete information on the refund of tuition, see the Refund section under Tuition and Fees. It should be noted that Seattle University's policy governing the amount of tuition refunded based on the length of time the student has attended is always more favorable to the student than the minimum requirement described in the federal refund policy. Neither our accrediting agency nor our state have an approved refund policy. Seattle University's refund policies follow the federal refund requirements.

## Partial Changes to Enrollment

When a student drops courses during the published dates during which tuition, room, and board can be refunded to the student, and the student is also receiving financial aid, an adjustment to the student's record must occur. A careful review of the total cost for that quarter and the aid which has been awarded to the student is done. The tuition amount used is adjusted downward by the amount of tuition refunded. If that creates a situation where the student is receiving financial aid funds in excess of their new documented need, the financial aid for the quarter (or in some cases for subsequent quarters) can be adjusted. Specifically, in those cases when a student's documented need prior to the refund has been fully met by financial aid funds, some adjustment to financial aid occurs.

## Complete Withdrawals

When a student withdraws from all courses during the published dates during which tuition, room, and board can be refunded to the student, and the student is also receiving or has received financial aid for that quarter, an adjustment to the student's record must occur.

For those students who have Federal and/or State financial aid, Seattle University calculates the amount of financial aid that must be refunded to its source, based on the length of time the student was enrolled for the quarter. How a refund is calculated varies based on the student's individual circumstances.

All students who withdraw from their courses before the first day of classes receive 100 percent of their tuition refunded, and all financial aid is refunded to the source.

Students attending Seattle University for the first time, who incur tuition charges, will have their financial aid refunded according to the federal pro rata refund regulations. For detailed examples of this calculation, contact the Financial Aid and Student Employment Office.
Students who are not first time attendees, who withdraw from all courses after incurring some tuition charges, have their financial aid refunded according to a calculation based on either the Federal Refund Policy or the Institutional Refund Policy, whichever provides the largest refund. For detailed examples of this calculation, contact the Financial Aid and Student Employment Office.

When calculating a refund for those students whose total charges are not covered entirely by financial aid and who have not paid the difference to the university, Seattle University must include that unpaid amount in the refund calculation used. In some cases, the inclusion of the unpaid difference may result in a student still owing some charges to the university.

When a refund is due, the university is required to return financial aid in the order following:

1. Unsubsidized Federal Direct Stafford Loan
2. Subsidized Federal Direct Stafford Loan
3. Federal Direct Plus Loan
4. Federal Perkins Loan
5. Federal Pell Grant
6. Federal Supplemental Educational Opportunity Grant
7. Other Title IV aid programs
8. Other Federal Sources of aid
9. State, Private, or Institutional Aid
10. Student

## Tuition and Fees

Tuition Rates 1999-2000
Regular Courses (fall, winter, spring) \$358 per credit hourFull-Time Student Annual Tuition\$16,110
45 credit hours per year ( 15 credit hours per quarter). Additional credits will be extra.
Culture and Language Bridge (CLB) $\$ 358$ per credit hour
Auditors Tuition $\$ 113$ per credit hour
A confirmation deposit of $\$ 200$ is required of all newly admitted undergraduate students. This deposit will be retained by the university until the student officially withdraws or graduates from Seattle University.
Laboratory Fees 1999-2000 (per course)
Nursing 200, 202 ..... \$55
Nursing 302, 303, 319, 329, 339, 349, 411, 413 (per credit) ..... \$35
Nursing 308, 309, 311, 326, 385, 401, 403 ..... \$155
Nursing 423, 425 ..... \$245
Private Music Lessons ..... \$75
Psychology 304, 306 ..... $\$ 70$
Science and Engineering Laboratory Courses ..... \$70
Other Fees (non-refundable) 1999-2000
Graduate application - includes post-baccalaureate and non-matriculated ..... $\$ 60$
Undergraduate application - includes post-baccalaureate and non-matriculated ..... $\$ 50$
Credit by Examination - per credit hour ..... \$75
Identification Card - Loss/Replacement ..... \$25
Incomplete Fee - per course ..... $\$ 50$
Late Payment (see details later in this section) ..... \$100
Matriculation - undergraduate and graduate ..... \$75
Official Transcript - Same day service request ..... \$25
Validation of Field Experience - per credit hour ..... \$75
Graduate tuition and fee rates are published in the Graduate Bulletin of Information.
Residence Charges 1999-2000

| Room Rates: | $\underline{\text { Qtr }}$ | Academic $\mathbf{~ Y r}$ |
| :--- | :---: | :---: |
| Double Occupancy <br> Single Occupancy | $\$ 1275$ | $\$ 3825$ |
| Board Plans: | $\$ 1711$ | $\$ 5133$ |
| $\quad$ Plan A | $\$ 685$ | $\$ 2055$ |
| Plan B | $\$ 580$ | $\$ 1740$ |
| Plan C | $\$ 475$ | $\$ 1425$ |

Bellarmine and Xavier Hall residents are required to purchase a meal plan. A plan is optional for other residents. Campion students can use existing kitchen facilities and may choose not to purchase a plan. For additional information contact Residential Facilities (206) 296-6274.

## Controller's Office

The Controller's Office offers the following services: student account statements, receipt of student payments, answers to questions about student accounts, disbursement of authorized financial aid, signing of Federal Perkins, Nursing and institutional loan documents, monitoring the repayment process and collection of Federal Perkins, Nursing and institutional loans and delinquent student accounts, receipt and processing of time sheets for student payroll, and issuing of student payroll checks. The normal window hours are 8:30 a.m. to 6 p.m., Monday and Tuesday; 8:30 a.m. to 4:30 p.m., Wednesday and Friday; and 9 a.m. to $4: 30$ p.m. Thursday.

## Tuition and Fees

Payment of tuition and fees includes library and health service fees, student newspaper, student organization allotments, building fund, and admission to athletic events. International students will automatically be charged for medical insurance. An insurance waiver can be obtained from the International Student Center upon proof of health/medical insurance coverage.

## Official Withdrawal

Until a student officially withdraws from a class with the Registrar's Office, it is the student's responsibility to pay for all fees in full whether or not the student attended the course(s).
The date a completed withdrawal form is received in the Registrar's office is considered the effective date of withdrawal by the registrar. After these changes, call the Controller's Office at (206) $296-5880$ for an updated account balance.

## Tuition Due Dates 1999-2000

Tuition and fees are due and payable on or before:
Fall quarter $\qquad$ September 15
Winter quarter December 15
Spring quarter March 21
Summer quarter
June 15* Variable

## Payment Options

A) Pay by mail: Send your payment to Seattle University, Controller's Office, P.O. Box 24064, Seattle, WA 98124-4340. Please write your student ID\# on your check.
B) Pay by phone with your VISA or MASTERCARD. Call (206) 296-5898 (24-hour credit card line only) or call (206) 296-5880 between 9:00 a.m. and 4:30 p.m. (Mon.-Fri.).
C) Pay by drop-box: Place your check in the drop-box located by the Controller's Office door, available 24 hours a day.
D)Pay in person at the Student Accounts window, Controller's Office, between 8:30 a.m. and 6 p.m. Mon-Tues, or between 9:00 a.m. and 4:30 p.m. Wed-Fri.
E) Make payment arrangements with the Student Accounts Department:

Plan A: Annual arrangements may be made with Academic Management Service (AMS) for monthly payments. Call (800) 635-0120 for information on AMS. (Deadline to apply is 9/15/99.)
Plan B: $1 / 3$ of tuition balance plus $1 \%$ service fee by the tuition due date; $1 / 3$ in 30 days; remaining balance due in 60 days.
Plan C: $1 \%$ service fee plus balance of account in 30 days.
Interest continues to accrue on the unpaid balance on both Plan B and C until it is paid in full. Call (206) 296-5899 for information on university payment plans.

Seattle University reserves the right to change its charges at any time without previous notice. If you have any questions regarding your account, please call the Student Accounts Department at (206) 296-5880 between 9:00 a.m. and 4:30 p.m. (Mon.-Fri).

## Late Payment

A late fee of $\$ 100$ (one time per term) and interest of $1 \%$ per month on any balance due will be applied if:

1. Pending financial aid for the term is not sufficient to cover the outstanding term charges on the account, and/or
2. Payment or payment arrangements for the term have not been made with the Controller's Office by the tuition due date. If a signed payment plan is on file with the Controller's Office the late fee will be waived. If the terms and conditions of the plan are not met, all applicable late fees will be applied retroactively.
A service fee of $\$ 20$ will be charged for all checks not honored by the bank and returned unpaid to Seattle University. If the returned check was for tuition and charges are still outstanding after the tuition due date, a late fee will also be assessed to the student's account.

## Past-Due Accounts

Failure to pay in full all tuition and other fees for any quarter (or session) will result in a hold being placed on the academic transcript and will prevent further registration until resolved/paid in full. Delinquent accounts may be referred to a commercial collection agency and may be reported to national credit bureaus. All costs, expenses and fees (including, but not limited to attorney fees, court costs and other out-of-pocket expenses) incurred by the university in collecting or attempting to collect a past-due account are the responsibility of the student, and shall be charged to the student's account.

## Refunds



* See the quarterly schedule of classes for specific dates.
(This schedule applies to both institutional and Title IV funds and is subject to change without notice)

Refunds are based on the number of calendar days(excluding official campus holidays) from the first class day of the term until the official date of withdrawal or reduction in credit load occurs. The official date is considered to be the date the student submits the withdrawal or change form to the registrar. A refund to a financial aid recipient is applied first to the student's financial aid source(s). The balance, if any, is remitted to the student. Loan proceeds are returned directly to the lender. Financial aid recipients will, therefore, in all likelihood, not receive refunds.

Petitions for tuition adjustment and fee waiver will be approved only to correct university error.

## Overpayment of Account (credit balance)

Credit balances created by financial aid, tuition adjustments, or overpayment will be remitted to the student. Payment will be made by check or credit card, depending on the student's original method of payment. The credit will be mailed to the student or, upon request, may be picked up at the Controller's Office. In most cases, refunds are mailed the next business day.

Credit balances from financial aid are not available to students until after 3:00 p.m. on the first class day of each quarter. To receive a credit check on that day, students must request the check from the controller's office at least three business days before that date. (See the Quarterly Schedule of Classes: Tuition and Fee Payments/Overpayment of Account for the specific deadline.)
Please Note: Federal regulations effective 7/1/97 require Seattle University to forward Title IV financial aid resulting in a credit balance to the student within 14 days. Therefore, if a check is not requested by the student, it will be generated and mailed to the student by the Controller's Office.

## Academic Policies

## Program of Study

Students, with the help of their academic advisers, are responsible for satisfactory completion of their program of study.

Students should not rely on oral representations of degree requirements or waivers thereof; they should obtain information from the designated level of authority and see that all agreements are entered in writing in their official academic file in the Registrar's Office.

The Academic Council has discretionary powers for all cases not covered by the rules and regulations listed in this section.

The enrollment and graduation of each student, the awarding of academic credits, and the granting of any award or degree are strictly subject to the disciplinary power of the university.

The university reserves the right to cancel any class that does not meet the required minimum enrollment.

The university reserves the right to change any requirement and to ask a student to withdraw at any time.

Regulations in this bulletin are supplemented by policy memoranda that set forth policy in greater detail. References to applicable policy statements are noted parenthetically. Copies of these policy memoranda may be obtained from the Registrar's Office.

## Academic Conduct

There are two documents which govern student academic conduct, the Academic Honesty Code and the Academic Grievance Procedure. Both are published in the Student Handbook and students are responsible for knowing them. Individual schools may have policies that further specify the Academic Honesty Code; students should also consult their school policy.

## Academic Terms

Accredited-Certified as fulfilling standards set by regional or professional accrediting agencies. Indicates that course work is generally transferable to other colleges and universities. The university's accreditation is listed in the general information section of this bulletin.
Advanced Placement-The university encourages advanced placement of students entering from high school through approved departmental examinations or by the Advanced Placement Examination of the College Entrance Examination Board.
Adviser-A member of the faculty or staff designated to assist a student in planning a program of study.
Auditor-A student who has permission to attend a regular course on a non-credit basis. See audit policy following.
Certificate-A document awarded by the university and issued by the registrar's office upon completion of a series of courses in a professional specialty.
College-An academic division within the university in which academic departments reside.
Core Curriculum-A program of liberal study which is the foundation of Seattle University's undergraduate program.
Corequisite-A course which must be taken in the same quarter with another specified course. Credit by Examination-Examination for advanced credit in courses offered by the university for work done in private study or work not transferable to the university. Forms for approval of credit by examination are available in the Registrar's Office.
Credit Hour-The unit by which the university measures course work. One credit hour is awarded for a class meeting 50 minutes a week over the period of a quarter; in laboratory and activity courses, two or more hours a week over a period of a quarter are required.

Curriculum-An established program of study leading to a degree in a particular subject field.
Dean's List-A quarterly report listing undergraduates who have completed 12 or more graded credits at Seattle University with a term grade point average of 3.50 or higher.
Degree-An award by the university upon completion of a program of study.
Department-An instructional or administrative division of a school or college within the university that concentrates on a specific subject field.
Elective-A course chosen by a student that is not a requirement in the program of study or in the core curriculum.
Full Time-For academic reporting purposes, 12 credits is full time for undergraduate students and eight credits is full time for graduate students.
Grade Point Average (GPA)-An average computed on the basis of numerical values assigned to grades; the grade point average is equal to quality points (numerical point value multiplied by the credit value for each course) divided by credits attempted.
GPA, Cumulative -The grade point average, based on all Seattle University work. Transfer credit is not included in the cumulative GPA.
GPA, Major-The grade point average based on all Seattle University work used to complete course and credit requirements of the major, as well as the supporting courses in allied fields specifically required by the program. Transfer credit is not included in the major GPA.
Intersession-The final four-week session of summer quarter, usually from mid-August to mid-September.
Leave of Absence-A formally petitioned and approved absence from the university for a maximum of four consecutive quarters. See policy following.
Major-A principal field of study. Majors are described in the school and college sections of this bulletin.
Matriculate-Enrollment at the university for the first time to pursue a degree, or professional, post-secondary, or post-baccalaureate program.
Minor-A secondary field of study. Minors are described in the school and college sections of this bulletin.
Non-Matriculated-An admission category that includes students not pursuing a degree or certificate or a prescribed set of prerequisites for entry into a specific Seattle University degree program. Also includes those admitted for specific short-term educational programs. See policy following.
Part Time-For academic reporting, a program of fewer than 12 quarter credits is considered part time for undergraduate students; three-quarter time is 9,10 , or 11 credits; half time is 6,7 or 8 credits; less than half time is 4 or 5 credits; one-quarter time is 1,2 , or 3 credits. For graduate students, 8 credits is a full-time load; three-quarter time is 5,6 , or 7 credits; 3 or 4 credits is a half-time load; and 2 credits is one-quarter of a full course load.
Placement Tests-Tests in specific fields, such as mathematics and foreign languages, given to entering students to determine their level of achievement for placement in college courses.
Post-Baccalaureate Graduate-Students admitted for a specific advanced certificate.
Post-Baccalaureate Undergraduate-A student with an acceptable baccalaureate degree admitted to the university to pursue a second bachelor's degree, an undergraduate certificate, or a prerequisite program of study. Eligible to enroll in courses numbered 100-499 only.
Prerequisite-A course which must be completed before a student may register for a more advanced course.
President's List-A quarterly report listing undergraduates who have completed 12 or more graded credits at Seattle University with a term grade point average of 3.90 or higher.
Probation-Status resulting from academic performance below the minimum university requirement. See policy following.

Provisional Student-One who is admitted by special action with an entrance requirement unsatisfied. Enrollment beyond the first quarter is contingent upon the satisfaction of that requirement.
Quarter-The term of instruction at Seattle University. There are three quarters in the regular academic year: fall, winter, and spring. An additional term, summer quarter, extends from late June through early September and includes an intersession in some departments.
Readmission-Procedure whereby a student who has been absent from the university for four consecutive quarters or more requests permission to reenroll.
Registration-Official enrollment in the university through which a student sees an adviser, selects courses, and secures a place in each of those courses.
Regular Student-A matriculated student pursuing a degree or certificate.
School-An academic division within the university in which academic departments reside.
Transcript-A copy of the student's permanent academic record at Seattle University.
Transfer Credit-Credit completed at another accredited college or university and accepted by Seattle University toward a specific program of study.
Transfer Student-One who is admitted to Seattle University having previously completed acceptable credit at another college or university.
Withdrawal-Official notification to the university by a student that he or she will not complete a course. Withdrawals are filed with the registrar within published deadlines.

## Attendance Requirement

Attendance may be an essential and intrinsic element of the educative process. In any course in which attendance is necessary to the achievement of a clearly defined set of course objectives, it may be a valid consideration in determining the student's grade. While there is no all-university regulation requiring class attendance, it is the responsibility of the instructor to state the relevance of attendance at the beginning of each course.

## Auditing a Course

## (Policy 97-7)

Students may be enrolled as auditors in undergraduate courses (graduate courses may not be audited) upon payment of the usual fees and audit tuition. Ordinarily, only lecture courses may be audited; however, auditability of individual courses is determined by the chair of each department. Auditors must choose this grading option by the last day to add/drop each quarter and will not receive college credit for the course. A student cannot later establish credit in an audited course by means of a challenge examination, through the petition process, or by payment of additional tuition. Class participation is at the discretion of the instructor. It is the responsibility of the auditor to meet with the instructor at the beginning of the course to determine the level of participation permitted by the instructor. In all cases, students who register for credit and who pay regular fees will have priority over those who register on an audit basis.

The alumni audit program is available to alumni through the Alumni Relations Office and information regarding Elderaudit may be obtained from the Registrar's Office. Neither of these two programs provides a student with a permanent record of the audited course.

## Change of Major

To transfer from one school of the university to another, or from one major to another, a student must obtain a change of major form from the registrar, notify the former department by obtaining the chairperson's signature and present the change of major form to the new department chairperson for approval. Students must meet the minimum entry requirements of
the new major. They must also satisfy any additional requirements of the new school or college in order to earn the new degree. The approved form is returned to the registrar by the department and the student's record will be adjusted to show the new major.

## Second Major

(Policy 76-2)
A student may earn a double major by completing core requirements for the degree sought and by fulfilling all requirements of each of the two major programs.
There is not an additional number of degree credits required, providing all requirements for both majors are completed when the degree is posted. Because only one bachelor's diploma is awarded, the student selecting two majors which culminate in two different degrees must decide which of the two diplomas is to be awarded and must fulfill requirements for the school or college which houses that program. The two majors are both noted on the student's transcript.

For second or concurrent degrees, see bachelor's degree requirements under Graduation/ Commencement in this section.

## Classification of Students

## (Policy 82-2)

Regular undergraduate students are classified as follows:
Freshman ........................ 0 to 44.9 credits completed toward degree
Sophomore................... 45 to 89.9 credits completed toward degree
Junior......................... 90 to 134.9 credits completed toward degree
Senior ....................... 135 or more credits completed toward degree
Other students are classified as follows:
Graduate-Students admitted for a masters, graduate certificate, education specialist or doctoral degree program.
Non-Matriculated-An admission category that includes students not pursuing a degree or certificate or a prescribed set of prerequisites for entry into a specific Seattle University degree program. Also includes those admitted for specific short-term educational programs, (e.g. Matteo Ricci College or the Department of Military Science). See non-matriculated status in following pages.
Post-Baccalaureate Undergraduate-A student with an acceptable baccalaureate degree admitted to the university to pursue a second bachelor's degree, an undergraduate certificate, or a prerequisite program of study. Eligible to enroll in courses numbered 100-499 only.
Post-Baccalaureate Graduate-Students with an acceptable baccalaureate degree admitted to the university to pursue a second bachelor's degree, an undergraduate certificate, or a prerequisite program of study. Eligible to enroll in courses numbered 100-499 only.
Post-Secondary-Students without a bachelor's degree who are pursuing the addiction studies certificate only.

## Concurrent Enrollment at Two Colleges

## (Policy 75-6)

Seattle University regulations require undergraduate students to seek written permission on a "transfer verification form" to be enrolled simultaneously at another institution. Credits completed at a second institution are transferable in limited circumstances when, prior to enrolling elsewhere, a form authorizing dual enrollment is approved by the dean. These limited circumstances include: 1) When a student would significantly benefit from a course not offered at Seattle University but available at another institution; 2) when, because of infrequency of a
particular offering, taking the course at Seattle University would unreasonably delay graduation, a delay which could be avoided by dual enrollment, and 3) during a one-quarter transition when a student first transfers to Seattle University while still completing course work at the institution from which he or she is transferring.

## Course Numbering System

The course numbering system at Seattle University is as follows:
001 to 099 are courses which do not count toward degree requirements
100 to 199 are freshman courses
200 to 299 are sophomore courses
300 to 399 are junior courses
400 to 499 are senior courses
500 to 699 are graduate courses (graduate standing is required)
900 to 999 are professional development courses
Courses numbered 100 to 299 are "lower division" courses and those numbered 300 to 499 are "upper division."

## Credit by Examination

Examinations for credit in undergraduate courses offered by the university may be taken by a student for work done in private study or on subject matter taken at a non-accredited college or university, with the following restrictions:

1. Students must be currently registered at Seattle University.
2. No student may take an examination in a course in which he/she is currently registered or has taken in any previous quarter.
3. The maximum number of credits obtainable by such examinations is 30 , of which not more than 15 may be obtained in one subject matter field. All credits obtained by examination will be counted as extension credit and included in the maximum 45 extension credits allowed.
4. No credit will be granted unless the applicant has earned a minimum of 15 resident credits with a minimum grade point average of 2.50 .
5. No student may earn credit by examination in subject matter more elementary than that for which he/she is currently enrolled (attending) and/or for which credit has previously been received.
6. No student will be permitted to repeat an examination.
7. A maximum of 15 credits may be earned through credit by examination in a single term. Exceptions are granted only for NLN examinations in nursing courses.
8. Credit by examination is not granted for lower-division foreign language courses in the student's native language.
9. Students who wish to qualify for credit by examination must obtain the appropriate form from the registrar, apply to the dean, and controller for approval.
10. No graduate credit is given by examination.
11. Nursing students who are licensed RNs may, under special circumstances, earn credit by examination for courses specified in Policy 85-1.
12.The grade will be posted CR (credit) or NC (no credit) and will have no effect on the grade point average. The minimum achievement level for receiving credit will be C. Core requirements may be satisfied through credit by examination and graded CR in this case.
13.The student does not formally register for the course and the examiniation is not considered part of the student's credit load.

## Credit Load

The normal load for undergraduates is 15 credits per quarter. No student may carry an excess of 18 credit hours without permission from the dean of the school, except in the School of Science and Engineering, where 21 is the maximum.

Students on academic probation may be required by the dean of their school to carry less than the normal credit load.

## Examinations

Examinations in all courses are regularly held at the middle and end of each quarter, and at such other times as the instructor may determine. Absence from an announced written examination is excusable at the discretion of the instructor and subject to review by the dean. Students absent from a scheduled examination without justifiable cause will receive a failing grade for the examination.

## Forgiveness Policy

(Policy 77-6)
Former Seattle University students with poor academic records may resume their studies without the encumbrance of previously earned poor grades. After being absent from school for at least eight years, former Seattle University undergraduate students may apply for forgiveness at the time of readmission or during the first quarter resumed at Seattle University. For further information consult the Registrar's Office.

## Grade Changes

Errors in grades must be reported within six months of the date of issue of grade reports. Once a grade is recorded it can be changed through a request of grade change form, which is completed by the instructor and countersigned by the department chair and dean of the school.

## Grading System

Since fall 1996 the university has used the following system of grading to indicate the level of individual student achievement. Each letter grade has a quality point value assigned for the grade achieved. The quality point value is assigned to each letter grade as follows:

A 4.0 Superior performance
A- 3.7
B+ 3.3
B 3.0 Good performance
B- 2.7
C+ 2.3
C 2.0 Adequate performance
C- 1.7
D+ 1.3
D 1.0 Poor performance
D- 0.7
F 0.0 Failing (formerly E)
LP Language - Prepared
LU Language - Unprepared
The grades of CR, HW, I, LP, LU, M, N, NC, P, Q, R, W, Y, YW, or Z have no quality point value.

## CR/F-Mandatory Credit/Fail

Music practice courses, some field experiences, internships, independent study in the

Albers School of Business and Economics, some graduate courses, and other courses so designated by individual departments are only graded credit (CR) or fail (F). When passed with the minimum acceptable standard of $D$ - on the undergraduate level and $C$ on the graduate level, the course will be graded CR and credit will be granted. There will be no effect on the grade point average. Should the student fail to satisfy the instructor's minimal expectations, the course will be graded F and will be included in the computation of the grade point average.

To qualify for graduation with undergraduate honors, a minimum of 90 credits must be completed at Seattle University graded A through D-. Credits from mandatory CR/F courses will not count toward the 90 minimum unless the courses are specifically required by the major, in which case a student will be considered for honors with a minimum of 80 graded credits.

## CR/NC—Credit/No Credit

The CR/NC grading mode is reserved for undergraduate credit by examination. Minimum achievement level for receiving credit is C . Neither CR nor NC affects the grade point average. See Credit by Examination section of this bulletin.

## HW-Hardship Withdrawal

A grade assigned by the dean or the dean's designee when a student must withdraw from a course for a medical/family hardship reason as documented by a licensed professional. There is no effect on the grade point average and tuition is refunded in full. Financial aid recipients are advised to check with the Financial Aid Office before requesting a hardship withdrawal as this action may negatively affect financial aid.

## I-Incomplete

A temporary grade indicating that work in the course was acceptable, although a critical portion of it was not completed because of illness or other serious circumstances beyond the student's control. The I grade may not be used for the convenience of the faculty member or student. When the instructor assigns an I grade at the end of a term, a provisional grade is also submitted which will be automatically assigned by the registrar should the deadline expire without student action. This provisional grade should be calculated to include all work completed to date of final attendance plus a failing grade for work/exams the student did not complete. An incomplete fee is posted on the student's account when the grade is submitted to the registrar.

When the specified work has been completed, the faculty member files with the registrar a change of grade form in order to have the final grade posted to the transcript. Beginning with courses taken fall 1997, deadlines for submission of the form are:

## I Grade Received

Fall term
Winter term
Spring and Summer terms

## Faculty must submit grade by

March 1
May 1
November 15

Under unusual circumstances, a faculty member may request of his/her dean an extension of the time the " I " will remain on the record. Such a request for extension must be made to the registrar by the deadlines listed above.

While on the transcript, I grades will carry no penalty; i.e., they will not be counted in credit or grade point average computations.

## IP-In Progress

Symbol used on the academic transcript to indicate current quarter's courses.

## LP-Language - Prepared

A grade used solely in the Culture and Language Bridge Program to indicate satisfactory
completion of an intensive, non-credit, skill development course required as an academic support for some international students.

## LU-Language - Unprepared

A grade used solely in the Culture and Language Bridge Program to indicate unsatisfactory performance in an intensive, non-credit, skill development course required as an academic support for some international students.

## M-Missing

Symbol used on grade reports to inform student that a grade has not been received from instructor.

## N-No Grade

A suspended grade for courses in which work is not scheduled for completion until after the quarter closes, e.g., thesis or research courses at the graduate level. It is the responsibility of the student to arrange with the supervising instructor to remove the N within the following four consecutive academic quarters, per the schedule given below. Once the closing date has passed, re-registration and payment of regular tuition is required in order to obtain credit for the work completed. Once a degree has been posted, removal of an N grade is not permitted.

## N Grade Received Faculty must submit grade by <br> Summer term <br> Fall term <br> Winter term <br> Spring term <br> August 1 of the following calendar year <br> November 15 of the following calendar year <br> March 1 of the following calendar year <br> May 1 of the following calendar year

## NC-No Credit

Grade assigned when credit by examination has been attempted and student did not achieve acceptable performance level of at least C . There is no effect on the grade point average.

## P-Pass

P/F - The P grade is assigned when a student successfully completes an undergraduate course after electing the pass/fail grading option for a general elective course. Failure to achieve at the minimum $D$ - level results in a grade of $F$, which will affect the grade point average. See Pass/Fail option below.

## Q—A Suspended Grade

For doctoral project/dissertation work-in-progress at the 600 level only. The Q grade must be removed within the six-year limit for all the degree coursework. Once the six-year limit has expired, the $Q$ becomes permanent and the student must re-register for the course, paying regular tuition to obtain credit for the work completed.

## R-Doctoral Research

Indicates registration in a required non-credit doctoral research course. A permanent grade which does not effect the grade point average.

## W-Withdrawal

Official withdrawal

## Y-Audit

A course for which no credit is given. Not available for course numbers 500-950.

## YW—Audit Withdrawal

Student registered as an auditor but did not attend through end of course.

## Z-Unofficial Withdrawal

Grade assigned by the registrar when it can be documented that a student has registered for a course, has never attended, and has not officially withdrawn according to university policy. There is no effect on the grade point average.

## Pass/Fail Option

## (Policy 76-1)

Undergraduate students may elect a pass/fail option in free elective courses only, and under the following conditions:

1. Student must elect the pass/fail option at the time of registration and may change to or from $\mathrm{P} / \mathrm{F}$ only during the drop/add period.
2. Ten quarter credits graded $\mathbf{P} / \mathrm{F}$, regardless of number of courses, is the maximum acceptable toward a bachelor's degree.
3. The $\mathrm{P} / \mathrm{F}$ grading option is not allowed for major or college requirements or university core. Should the student elect a course $\mathrm{P} / \mathrm{F}$ and then change majors so that the course would be required, the student's dean will make final determination as to applicability of the credit toward graduation.
4. Only one $\mathrm{P} / \mathrm{F}$ course may be selected in a given quarter.
5. Courses numbered 500-950 are not open to $\mathrm{P} / \mathrm{F}$ grading.

Courses elected as $\mathrm{P} / \mathrm{F}$ will appear on the student's permanent record and will be graded P (Pass) with a minimum passing grade equivalent to D -, or F (Fail).

Courses in which a P grade is given will be counted as completed credits, but will be excluded from computation of the grade point average. An $F$ (Fail) will be reflected in the grade point average and the course will not be counted as completed.

A minimum of 90 credits graded A through D- must be completed at Seattle University to qualify for graduation with honors. Courses graded P/F do not count toward this total of 90 .

## Grade Point Average

## (Policy 75-2)

Seattle University requires that undergraduate students maintain a C average, which is equivalent to a cumulative 2.00 grade point average on a 4.00 scale. Requirements of professional schools may be higher and individual majors and programs may have special grade requirements.

The grade point average is computed by dividing the total number of quality points achieved by the total number of credit hours attempted in which the student earns a letter grade.

Undergraduate students' major grade point average includes all Seattle University credtis used to complete course and credit requirements of the major department as well as the supporting courses in allied fields specifically required by the department. This includes courses in the major program which also satisfy a core requirement.

Graduate students must maintain a $B$ average, which is equivalent to a cumulative 3.00 grade point average on a 4.00 scale.

## Grade Reports

Student quarterly grade reports are mailed at the end of each quarter. The university does not hold itself responsible for grade report errors unless the registrar is notified of the error within six months after the date of issue of a grade report.

## Leave of Absence

## (Policy 97-4)

Matriculated students who have completed one full quarter at Seattle University, who are not international students and who have not been dismissed for academic reasons, may apply for a leave of absence when they must interrupt their education under specific circumstances. The leave will be in effect for no more that four consecutive quarters and must be approved by the student's dean in consultation with the registrar.

A leave of absence is not granted when a student is simply "stopping out" for one or more terms but will be granted for: military service, church, missionary or volunteer work through a recognized religious or volunteer organization; medical or financial hardship; family hardship; participation in a university approved study abroad program; participation in a reciprocal university program of study; or, at the recommendation of an academic department because a student must pursue required courses at another institution.

When formally approved, this procedure may grant students special consideration by financial aid and loan agencies.

## Majors

Major requirements within each department or school are outlined in this bulletin under departmental requirements or degree requirements.

## Minors

(Policy 84-1)
Departments or schools offering undergraduate minors outline specific requirements in this bulletin under departmental requirements or degree requirements. Students wishing to have a minor posted to their academic records must file a request for minor form with the registrar, which outlines the composition of the minor. Minors are granted with the following conditions:

1. Minors will be posted to a student's record concurrent only with a first undergraduate degree.
2. Minors cannot be earned within the 135 -credit Matteo Ricci College degree program.
3. No more than 15 credits from an interdisciplinary major will be counted toward any student's minors. Interdisciplinary majors are: ecological studies, general science, international studies, and liberal studies.
4. The bulletin under which the student receives an undergraduate degree will stipulate course work for a minor.
5. Minors must include at least 30 quarter credits, including a minimum of six courses. See English Department listing for the exception to this requirement for students who have completed the Honors Program.
6. A maximum of 15 quarter credits of course work graded C (or 2.0 on the decimal grading system) or better may be transferred from other regionally accredited post-secondary institutions.
7. No more than five quarter credits in a minor can be graded P or CR. Additionally, the cumulative grade point average for all courses used in the minor can be no less than that applied to majors within the department sponsoring the minor.
Refer to individual departments for specific requirements.

## Non-Matriculated Status

## (Policy 82-2)

Non-matriculated students are defined as: those students admitted to Seattle University, by means of a special application form and fee, for the purpose of post-secondary or postbaccalaureate study which is not intended to culminate in a Seattle University degree or certificate; or, 2) those students who are recorded in the computer system via a manual registration process through the Office of the Registrar for particular programs offered by the School of Education's Professional Development Office, Matteo Ricci College, or the Department of Military Science (see Policy 82-2).

Students admitted as undergraduate non-matriculants must possess a high school diploma; those admitted as graduate non-matriculants must possess a baccalaureate degree from a regionally accredited institution of higher education. They are expected to be full participants in their courses and are held to the same standards as matriculated students.

There is no limit to the number of quarters for which a student may attend Seattle University as a non-matriculated student, but not all courses are open to non-matriculants. During Fall, Winter, and Spring terms, non-matriculated students will be admitted to courses on a space available basis after all matriculated students have had the opportunity to register; i.e. two weeks prior to the start of classes. During summer term, non-matriculated students may register when registration opens for the term.

Credit is awarded for successful completion of courses taken by non-matriculated students, however, courses will not be applied toward a degree or certificate until the student has applied and been accepted to a program of study as a matriculated student and petitioned the appropriate dean to request that said credits apply toward program requirements. Completion of courses does not guarantee admission into a program of study.

## Probation and Dismissal

## (Policies 75-14, 75-3, 81-2, 81-3, 81-4 and 84-2)

A student who falls below the standard required for graduation may be placed on probation and given the opportunity to improve the quality of work before final dismissal. A student will be placed on probation if the cumulative grade point average falls below 2.0 or the minimum required by a professional school. Probation may be continued for a second quarter if the cumulative grade point average continues below the standard of the particular school or college.

Students who have two quarters of poor scholarship at Seattle University, i.e., who earn a cumulative grade point average below 2.0, or who fail to maintain standards in a professional school, or those who receive failing grades in 10 or more credits in one quarter, or those with an excessive number of I grades, may be subject to dismissal. Students dismissed for academic reasons may request reconsideration through the appropriate dean in accordance with the policy of the individual school.

## Readmission

(Policies 75-3, 76-10, 81-3)
Readmission must be requested by both graduate and undergraduate students if their absence from Seattle University has been four or more consecutive quarters. Students will continue to receive registration materials and will qualify to register for four quarters after the last quarter of registration.

Exceptions: students listed below must apply for readmission if absent for one quarter, unless that quarter is summer:

1. School of Nursing students have special progression requirements stated in Policy 75-3, which take precedence.
2. Diagnostic Ultrasound majors have special progression requirements stated in Policy 81-3, which take precedence.
3. International students should refer to Policy 76-10 for special regulations.

Re-entering students who have attended other post-secondary institutions since withdrawing from Seattle University must submit official transcripts before applications for readmission can be considered. Credit for coursework completed elsewhere may be transferred according to the conditions listed under Transfer of Credit from Other Institutions in this bulletin.

Students absent from the university for four consecutive quarters or more will be held to the degree requirements in effect at the time of readmission.

Students readmitted to the university in fall 1991 and after, who completed the former core curriculum before stopping out, may graduate under that core plan even though they have been away from the university for four consecutive quarters or more. However, ten year old courses graded D that had applied to core must be repeated or replaced by an appropriate course.
Students who had not completed the former core and who return to complete their degrees after four or more consecutive quarter's absence must complete the university core curriculum as outlined in this bulletin.

## Records

## (Policies 76-3 and 76-9)

As required by federal legislation, Seattle University has a policy on the rights of students to privacy of their educational records and access to the information on file. Student directory information will be published by the university unless a student requests in writing that it not be released. Such requests must be filed with the registrar by the deadline as published in the official university calendar. Records policy includes the right of the university to place a restriction against the transcript of a student and to deny re-registration until all obligations to the university have been met. The full policy statement, including right of appeal, may be obtained from the registrar.

## Registration

All students must register on the dates published. No registrations are permitted after the last day to register, as published in the university calendar. Students registering after the first class day are held responsible for absences thus incurred. No person may attend any university course unless officially registered. A late tuition payment fee is assessed according to the date announced in the quarterly Schedule of Classes.

## Registration Changes

Students are held accountable to complete every course for which they register. If it is necessary to add or drop a course, the student must complete the appropriate touch-tone registration transaction by the last day such activity is allowed as published in the university calendar. Failure to officially withdraw from a course will result in a grade of F on the student's academic record.

## Repeating a Course

## (Policy 77-2)

An undergraduate student who receives a grade of C- or below in a course at Seattle University may repeat that course. Some schools and major departments require that students
repeat a required course under some conditions. When the course is repeated at Seattle University the most recent grade will be posted to the permanent record and will be used in computing the cumulative grade point average, although course credits will be counted only once toward a degree. The original grade will remain on the record. A student who receives permission to repeat a course at another institution will have no adjustment made to the Seattle University grade point average. The new course may count for credit and/or for content fulfilling a requirement as determined by established transfer policies.
If credit has been allowed for a course taken at another institution and then the course is repeated at Seattle University, the transfer credit is revoked and the Seattle University credit and grade replace it. A transfer student who has registered three or more times for a course at another institution without successfully completing it will be allowed to register for the course at Seattle University only once.

No student will be allowed to register for any single required course more than three times, including registrations resulting in grades of NC, I, HW, and W.

Some professional programs have specific regulations regarding the repeating of a course.

## Transcripts

(Policies 76-3 and 97-6)
Students may obtain official Seattle University transcripts of their academic record by submitting a written request to the Registrar's Office. No official transcript will be released for students with a financial obligation to the university.

A limited number of transcripts are offered without charge. They and other enrollment certifications should be requested at least one week before they are required. A fee is charged for same day service. Transcripts are generally not issued during the period of registration, examinations, or Commencement.

The university is not responsible for any error on a transcript that is not brought to the attention of the registrar within six months of the closing date of the quarter in which the error occurred.

When submitted to the university, official transcripts from other institutions must be received in a sealed envelope and must bear the seal of the issuing institution along with the date of issue and the appropriate signature. Transcripts stamped "issued to student" will be accepted as official only if they meet these criteria and are considered official by the issuing institution.

## Transfer of Credit from Other Institutions

## (Policies 77-1 and 79-1)

Regular undergraduate students who have attended other regionally accredited colleges or universities may have credits transferred to Seattle University under the following conditions:

1. An official transcript must be filed with the registrar. Deadlines are as follows:
Courses completed summer term December 1
Courses completed fall term March 1
Courses completed winter term ..... May 1
Courses completed spring term
August 1
2. Until fall 1995 , work graded $D$ (or 1.0 on the decimal grading system) or higher was allowed for transfer except for major program requirements and other major department requirements in the Schools of Business and Economics, Science and Engineering, Nursing, and some departments in the College of Arts and Sciences, where C (or 2.0 on the decimal grading system) was the minimum.

After fall 1995, the lowest acceptable grade in transfer for any course for new or continuing students is C - or 1.5 on the decimal system except for major program requirements and other major department requirements as stated above, for which the minimum will remain 2.0 . Courses graded below C- or 1.5 submitted for transfer after fall 1995 by new or continuing students are not acceptable irrespective of the date the course was completed.
3. Credit granted by two-year colleges may be applied to university freshman and sophomore years only. Transfer of such credit may not exceed 90 quarter credits.
4. Once 90 credits have been accumulated from all schools, including Seattle University, additional community college credits may not be transferred. Courses taken at a community college beyond the 90 credit limit, if applicable to the Seattle University degree, will not have to be repeated and can fill course content requirements, but credits do not transfer and such courses will not reduce the minimum additional 90 credits required for a Seattle University degree.
5. For admission with advanced standing, no more than 135 quarter credits will be accepted toward a bachelor's degree requiring 180 credits or more. All transfer students must take at least ten credits in their major field of study at Seattle University and meet core curriculum requirements. Some majors have higher minimums.
6. The transferable associate of arts degree granted by a regionally accredited Washington state-sponsored community college will bring certain benefits to the student who has completed a degree based on Intercollege Relations Commission guidelines of 1984 and after, and received it prior to first matriculation at Seattle University. The student will be admitted with junior status, with 90 credits, and will have fulfilled freshman and sophomore university core requirements except for philosophy, religious studies, and requirements of professional programs.
7. The last 45 degree credits must be completed at Seattle University. This is referred to as the senior residency requirement.
8. Credit earned through extension courses may be transferred if the course was sponsored for degree credit by an academic department of a regionally accredited institution. No more than 45 quarter credits of extension credit will be accepted. Credit earned through correspondence shall not exceed 12 quarter credits and must be included in the extension credit total of 45 quarter credits.
9. Credits more than 10 years old graded a minimum of C or 2.0 will be reviewed to determine applicability of credit to the major. Previously accepted courses graded lower than C or 2.0 that are more than 10 years old when an undergraduate student is readmitted will be removed from the Seattle University record and will not be applicable to any degree.
10. Since the Seattle University grade point reflects only work done at this university, the grade point average cannot be improved by repeating elsewhere a course failed at Seattle University.
11. Credits from unaccredited and newly accredited schools and non-traditional programs are subject to additional review prior to being transferred. See Policy $79-$ 1 for additional information.
12. Not all courses offered in post-secondary institutions are transferable to the university. Guidance is available through transfer guides for Washington community colleges issued annually by Seattle University and by Policy 77-1.
13.Continuing Seattle University students who wish to take additional work at another college must file a completed transfer verification form with the registrar prior to attendance to assure that the courses will be transferable.

## Withdrawal

## (Policy 75-22)

The Registrar's 0 ffice must be officially notified in writing by students when they withdraw from any course. The withdrawal form is obtained from the registrar and presented to the instructor, other applicable offices, and registrar, in that order, for approval and signature. Failure to officially withdraw from a course will result in a grade of F on the student's academic record.

The official date of withdrawal will be the date the appropriate documentation and completed form are received by the registrar. A grade of W will be allowed until the end of the seventh week of any quarter.

A grade of HW may be assigned by the dean or the dean's designee when a student must withdraw from a course for medical/family hardship reason as documented by a licensed professional. There is no effect on the grade point average and tuition is refunded in full. Financial aid recipients are advised to check with the Financial Aid Office before requesting a hardship withdrawal as this action may negatively affect financial aid.

## Graduation/Commencement

Official Commencement exercises are held once a year in June. All responsibility for fulfilling the requirements for graduation rests with the individual student.

## Academic Progress

Seattle University recognizes that students progress at different rates and their time to degree completion is often dictated by individual circumstances. However, all students (except those enrolled in the Matteo Ricci College) must complete a minimum of 180 credit hours of approved course work to be awarded a baccalaureate degree. (Note that some departments require more than 180 credits total.)

## Application for a Degree

Application for a degree must be made at the Registrar's Office according to the deadlines as published in the university calendar: for winter and spring completion, apply by November 1 ; for summer and fall completion, apply by February 1. Candidates for a degree normally file applications two quarters preceding their final registration.

## Application for a Certificate <br> (Policy 76-11)

Application for a certificate must be made at the Registrar's Office within the first four weeks of the student's last quarter in a certificate program. Deadlines: for fall completion, apply by 0 ctober 30 ; for winter, apply by January 30 ; for spring, apply by April 30 ; for summer, apply by July 30 .

## Bachelor's Degree Requirements

(Policies 75-1 and 76-2)
Students are held to degree requirements in effect at the time of first enrollment. Students who are readmitted after an absence of four or more consecutive quarters or who change their majors are held to degree requirements in effect at the time of readmission or change of major. Students may, by petition, elect to graduate under degree requirements specified in subsequent Bulletins of Information; under no circumstances will the requirements from earlier Bulletins of Information be applied.

Candidates for an undergraduate degree must meet the requirements listed below:

1. Core curriculum requirements and specific requirements of the college or school from which the student expects to graduate must be fulfilled. A minimum overall grade point average of 2.0 must be achieved and a grade point average of 2.0 is required in departmental requirements of the student's major. Higher grade point average requirements pertain in many programs. See individual program section for requirements.
2. A minimum of 180 credits is required for the baccalaureate degree, except for graduates of the Matteo Ricci College, where 135 credits is the minimum, and the civil engineering degree, which requires a minimum of 192 credits.
3. Ten credits in philosophy plus a five credit upper-division ethics course and 10 credits in theology and religious studies are required in all degree programs. See the Core Curriculum section of this bulletin for specific requirements and possible exceptions.
4. The senior year must be spent in residence at the university, which shall be understood to mean the final 45 degree credits. Such work is to be taken in the university under the direction of members of the faculty. In the case of Seattle University students enrolled in AFROTC and NROTC at the University of Washington, this requirement may be waived for aerospace and naval science studies. With specific permission from the dean and registrar, senior residency may be waived for an approved study abroad program.
5. All degree requirements should be completed within 10 years of the date on which the college work was begun. Credit over 10 years old will only apply to a degree when graded C (2.0) or better and approved as applicable by the student's dean or department chairperson.
6. All financial obligations to the university must be met prior to release of the diploma or an academic transcript.
7. Students working for a second baccalaureate degree, either consecutively or concurrently, must complete a minimum of 45 credits beyond the first baccalaureate degree and complete all specific requirements of the new program and/or the new college. These 45 credits must be completed in residence at Seattle University. To satisfy core requirements, students who have previously completed an acceptable baccalaureate degree must complete "essential core" at Seattle University: that is, they must pass an upper-division ethics course; a religious studies core course; and one senior synthesis course appropriate to the degree(s) sought.

## Commencement with Deficiencies

## (Policy 83-1)

Effective June 1999, students who have not completed their degree requirements may participate in commencement exercises under the following conditions:

1. Undergraduates who have ten or fewer credits of degree requirements remaining to be satisfied and who meet the grade point standards for their degree programs are eligible to participate in commencement.
Graduate students who have six or fewer credits of degree requirements remaining to be satisfied and who meet the grade point standards for their degree programs are eligible to participate in commencement. (Note: all students enrolled in the Master's in Teaching program scheduled to complete degree requirements in the summer quarter are eligible to partcipate in commencement the preceding spring.)
2. Applications for commencement with deficiencies must be filed in the Registrar's Office on or before the closing date for regular graduation applications.
3. The commencement program will include the names of those who commence with deficiencies; however, a symbol will note those students who have not fulfilled all requirements and no honors will be shown. Honors will appear on the official transcript and on the diploma once the requirements are completed.
4. Students commencing with deficiencies will not receive their diplomas until after all requirements for graduation have been completed.
5. Students must notify the registrar when they have completed degree requirements by submitting the request for certification of degree completion after commencement with deficiencies form. When degree requirements are fulfilled and forms have been submitted, degrees and honors will be posted on transcripts. Diplomas will then be issued and students' names will appear in the commencement program with applicable honors the following June.
6. Students who exercise this option to participate in commencement with deficiencies may not participate again following completion of their degree requirements.
7. Students who have not completed their degree requirements and submitted the request for certification of degree completion form within 12 months of their participation in the commencement ceremony will be held to the catalog requirements in effect at the time they petition for their degree certifications.
8. Students completing two degrees simultaneously may participate in the commencement exercises provided they have met all requirements for the first degree and have 10 or fewer credits remaining to be completed for the second undergraduate degree or 6 or fewer credits remaining for the graduate degree. Since the student's entire academic program, upon which undergraduate honors are determined, has not been completed, undergraduate honors will not be indicated in the commencement program and students will not wear the honors hood; honors will not be posted to the transcript until both degrees are completed.

## Honors at Graduation

(Policy 75-21)
Graduation with honors requires completion of a minimum of 90 credits in residence at Seattle University in courses graded A through D. Should a student elect the P/F option for any one course or take a credit by examination as part of the 90 credit minimum, honors eligibility is forfeited. In programs where CR/F grades are mandatory for required courses, such courses are allowed toward the minimum 90 credits, but no student may be considered for honors with fewer than 80 graded credits.

For students who matriculated in fall 1986 or after, and who graduated between August 1988 and February 1993:

Cum Laude-3.50 and at least 90 Seattle University graded credits
Magna Cum Laude- 3.70 and at least 115 Seattle University graded credits
Summa Cum Laude-3.90 and at least 135 Seattle University graded credits For students who complete degree requirements after February 1993, at least 90 Seattle University graded credits are required:

Cum Laude-3.50 through 3.69
Magna Cum Laude-3.70 through 3.89
Summa Cum Laude-3.90 through 4.00
Honors at graduation are conferred on undergraduate students only.

## President's Award

## (Policy 75-12)

The President's Award is given to the graduating senior who has maintained the highest scholarship throughout four years of college work, as determined by grades at Seattle University and in the judgment of the academic deans.

## Academic Honesty Code

Seattle University is committed to the principle that academic honesty and integrity are important values in the educational process and that violations in this area should be dealt with in an appropriate and effective manner.

## Violations

Academic dishonesty includes but is not limited to cheating, plagiarism, ghost writing, and furnishing false or misleading information on any official university academic form.

## Penalties

The imposition of penalties initially will be the responsibility of classroom teachers or department chairs, depending on the nature of the offense. For example, teachers have the discretion either to reprimand students or give failing grades for assignments, individual examinations, or entire courses. Brief reports of incidents and the penalties imposed will be filed with both instructors' and students' department chairs. In any such instance students have the right to appeal teachers' actions first to department chairs, and then to the appropriate dean.

In the case of repeated or more serious violations of academic honesty, teachers or department chairs involved may recommend to students' deans that students either be suspended or expelled from the school or college in which they are enrolled. Suspension or expulsion from a given school is within the authority of the dean of that school and may be appealed by students to the provost.

Although suspension or expulsion from a school will, in most instances, have the effect of separating students from the university, this result does not follow necessarily or automatically. In a rare instance, depending on the nature of the code violation, such students might be accepted by the dean of another school. Only the president may suspend or expel students from the university as such, and only, in normal circumstances, following a hearing of the charges in the presence of the accused.

## Student Academic Grievance Procedure

The purpose of the grievance procedure is to provide a confidential, fair, and timely means by which students may seek redress for an academic grievance. It assures a consistent and uniform response to such grievances throughout all academic units of the university. It is intended to promote a spirit of conciliation and mutual respect between students and faculty members by requiring cooperative participation in the resolution of grievances.

## Scope

The ultimate responsibility for the integrity of the academic grading process belongs to the university as an institution. Individual faculty members routinely act as agents for the institution in evaluating the student's academic performance and in assigning final course grades. The following process will guide the university's response to allegations of arbitrary and capricious behavior by any member of the teaching faculty in this evaluation effort.

The burden of proof lies with a student who claims a grievance; however, every student has a right to know the criteria for performance evaluation to be applied in a course and the system of grading to be used by the instructor. This information should be included in a written
syllabus and made available to all students in a class early in the quarter. The instructor has an obligation to award grades on the basis of rational, objective evaluation of a student's performance.

Questions of professional judgment concerning course content, instructional methods, and appropriateness of performance standards are not subject to review by this procedure, although they may be considered by the faculty member's program director, department chair or dean. Questions about the application of general university policies are also beyond the scope of this procedure but may be addressed to the appropriate administering department of the university.

The procedure does not apply to academic dismissals from the university.

## Process

To the greatest extent possible, academic grievances should be resolved at the level of authority closest to the classroom in which the alleged mistreatment occurred. The process involves a sequence of steps, at any one of which the matter may be adequately resolved and the procedure terminated. These steps are: the informal conference, the filing of a formal grievance, the appeal to an academic grievance board and a limited appeal to the provost. Each step of the process must be concluded before the next stage begins.

The Informal Conference. When a student feels aggrieved by a grading action of an instructor, a dialog between that student and the instructor must take place to provide an opportunity for the instructor to explain the evaluation that led to the grading action and for the student to explain the nature of the grievance. By mutual agreement of the student and the instructor, other persons may become involved in this informal conciliation process.

The Filing of a Formal Grievance. When the informal conference fails to resolve the matter, the student may file a formal grievance in duplicate with the chair of the department offering the disputed course. The formal grievance must be filed no later than the sixth week of the quarter following the quarter in which the challenged action occurred. Grievances arising from spring quarter courses must be filed no later than the sixth week of the following fall quarter, although they may be processed during the summer session if convenient and agreeable to all parties.

The formal grievance filed by the student will be in writing. It will describe the details of the grievance and propose a specific action to resolve the grievance. Upon receipt of the two copies of the formal grievance, the chair will notify the instructor of the student action and request in duplicate from the faculty member a written response to the allegations and a specific suggestion for resolution of the grievance. The involved instructor will receive a copy of the formal grievance and the student will receive a copy of the response by the instructor.

Within two weeks of receipt of the student's formal grievance, the chair will convene a meeting of the involved parties. Both student and instructor may be accompanied by one support person or advocate, who is also a member of the Seattle University community. In the course of this meeting, the chair will attempt to resolve the grievance. Within five working days of the meeting, the chair will issue a written statement summarizing the merits of the allegations and proposing course of action, even as far as changing a grade, in response to the formal grievance. Copies of the chair's statement will go to the student and to the instructor.

If either the student or the faculty member disagrees with the course of action proposed by the chair's report, an appeal to the appropriate academic grievance board may be made within 10 working days. If no appeal is made in that period, the action proposed by the chair becomes final.

The Appeal to an Academic Grievance Board. Each college, school, or institute will have an academic grievance board consisting of two full-time faculty members from that college and two students in good academic standing who are majoring in that college. Each board will have a list of designated alternates, equal in number to the board. The dean, after appropriate consultation within the college, will appoint the faculty members and the alter-
nates; the president of the ASSU will appoint the student members and alternates. Members of the board will have staggered terms of two years each. For each college offering a graduate degree, two additional alternate graduate students will be designated by the president of ASSU in consultation with the dean of the school/college. When a grievance under appeal involves a graduate student, at least one of the student members of the board must be a graduate student. The composition of the academic grievance board and the alternates list for each academic year will be announced by the deans no later than October 10.

A student or instructor who disagrees with the chair's report stemming from the formal grievance filing may submit a written request to the dean for an appeal hearing before the academic grievance board in the college where the disputed action took place, stating the basis for the request. The dean will have three working days to inform the student and affected faculty member of the board's membership and of the alternates list. The student and the faculty member may each challenge one member of the board. A challenged member will be replaced by the appropriate alternate serving the same term.

The board will convene within five working days of the determination of the panel's composition. At this time, it will consider only the written request of the appellant and the three written statements from the previous treatment of the formal grievance filing. Upon consideration of this record and with agreement of three members, the board may vote to sustain the recommendation of the chair's report. If this occurs, no further appeal is possible (unless a grade is being raised above the initially awarded course grade) and the process is terminated upon issuance of a written report by the board explaining its action.
If two or more of the members of the board agree that there appears to be merit to the appeal, the board will accept the matter for hearing and notify the dean. The hearing normally will be held within 10 days of the board's acceptance of the matter. At the hearing the board will receive testimony from the student, the faculty member, and any other persons deemed relevant by the board. The hearing will not be an adversary proceeding and cross-examination will not be permitted, although members of the board may ask questions of any witness. The board will make every effort to compile a complete and accurate record of testimony and other evidence. The three reports from the formal grievance filing will be a part of the board's record.

Within 10 working days of the conclusion of the hearing, the board will deliver its findings and recommendations to the dean. Within five working days of receiving the board's report, the dean's recommendation will be delivered to the student and the faculty member.

1) If the dean concurs with the board's recommendation, the grievance process is terminated and the proposed action becomes final, except in the instance where the proposed action would raise a grade above the initially awarded grade. In that instance, the faculty member has five working days to appeal to the provost.
2) If the dean's recommendation varies from the board's recommendation, either party has 10 working days to appeal to the provost. If no appeal is filed within that period, the dean's recommendation becomes final and the grievance process is terminated.

Any failure by participating faculty or administration to comply with this grievance procedure is sufficient basis to permit appeal by any aggrieved party to the provost, within 20 working days of the faculty action.

Limited Appeal to the Provost. Upon notice of appeal to the provost, the entire written record of prior proceedings in the matter will be forwarded by the dean. All actions of the provost will be based upon this record. The provost may remand the matter to the dean or the academic grievance board for additional consideration, sustain the dean's recommendation, or take a specific action based upon suitable new findings and conclusions. Either of the latter two actions becomes final and the grievance process is terminated. There is no further appeal on campus.

## Sexual Harassment Grievance Procedure

Seattle University recognizes its obligation to promote an environment and an attitude that encourages men and women to meet as equals in all aspects of life. Seattle University condemns any form of sexual harassment.

Sexual harassment can involve faculty, staff, or students. This statement covers men or women harassing men or women.

Students who believe they have been victims of sexual and/or gender harassment, and who wish to report or discuss incidents or receive counseling while preserving anonymity, should contact the affirmative action officer.

This statement in no way precludes students taking action outside the university.

## Sexual Harassment Policy Statement

Sexual harassment by any employee is forbidden. Sexual harassment is defined as unwelcome sexual advances, requests for sexual favors, and other verbal/non-verbal, or physical conduct of a sexual nature when:

1) Submission to such conduct is made either explicitly or implicitly as a term or condition of an individual's employment.
2) Submission to, or rejection of, such conduct by an individual is used as a basis for their employment.
3) Such conduct has the purpose or effect of interfering with an individual's work performance, or creating an intimidating or offensive working environment.

## Filing a Complaint

Seattle University is committed to providing a work environment that is free of discrimination. In keeping with this commitment, the university maintains a policy prohibiting unlawful harassment in any form. Procedures for reporting sexual harassment claims may be formal or informal and apply to faculty, staff, administration, and students.

Any member of the university who believes that he or she has been the victim of sexual harassment may bring the matter to the attention of the university's affirmative action officer.

The complainant should present the complaint as soon as possible after the alleged harassment occurs to ensure his or her complaint has been entered into the record, should he/ she decide to file a formal complaint at a later date.

The first meeting with the complainant and affirmative action officer is informational and confidential. This meeting is to assure the complainant that his or her complaint will be heard; to diffuse any feelings of guilt, anger, or discomfort; and to discuss the process for filing a formal complaint. The complainant is assured that the dissemination of information relating to the case will be limited in order to safeguard the privacy of all individuals.

If the complainant decides to proceed, he/she will meet with the affirmative action officer and submit a written statement.

The affirmative action officer will inform the alleged offender and his/her manager. A written statement of the complaint will be given to both parties. The complainant will be advised that every effort will be made to protect him/her from retaliatory action by the person(s) named in the complaint.

Once a complaint is submitted, the affirmative action officer will initiate steps deemed appropriate to effect an informal resolution to the complaint acceptable to both parties.

The complainant, if unsatisfied with the resolution proposed, shall have access to the university's formal grievance procedures upon submission of a request to the affirmative action officer.

Seattle University believes that publishing these procedures will help create an atmosphere in which individuals who believe that they are victims of harassment will be assured that their complaints will be dealt with fairly.

## The Core Curriculum

David Leigh, SJ, PhD and Burt Hopkins, PhD, Co-directors
"A Jesuit liberal arts education assumes that you become what you desire. All the courses in art and literature, in mathematics and science, in history, economics or business, in philosophy or theology aim at helping you clarify, broaden, and deepen your most important question in life: 'What do you really want?' When that question is deepened, most of us discover that what we really want is the knowledge, skills, and power to build a world of justice and love."
-John Topel, SJ, Chair, Catholic Tradition

## Objectives

Students at Seattle University take a basic program of liberal studies called the core curriculum. The university core curriculum introduces all Seattle University students to the unique tradition of Jesuit liberal education. The curriculum results from four years of discussion and work by more than 100 faculty members and administrators in response to a call by students and teachers for an integrated way of learning. In accord with Seattle University's Mission Statement, the core curriculum has three aims:

1. To develop the whole person for a life of service.
2. To provide a foundation for questioning and learning in any major or profession throughout one's entire life.
3. To give a common intellectual experience to all Seattle University students.

This university core curriculum has several distinctive characteristics:

- It provides an integrated freshman year for all students.
- It gives order and sequence to student learning.
- It provides experience in the methods and content of the range of liberal arts, sciences, philosophy, and theology.
- It calls in all classes for active learning, for practice in writing and thinking, and for an awareness of values.
- It encourages a global perspective, an intercultural and gender awareness, and a sense of social and personal responsibility.
The university core curriculum provides this ordered experience in three phases.


## Phase One <br> Foundations of Wisdom

The first phase gives a student the basis to move from experience to understanding and then to critical judgment and responsible choices. The goal of this first phase is to develop several foundations of liberal learning:

- Foundational Habits-Facility in asking the right questions, in critical and creative thinking, in writing and speaking skills, and in mathematical literacy.
- Foundations of Culture-Familiarity with the basic ways of knowing through a study of Western and other civilizations, primarily in their history, literature, science, and fine arts.


## Phase Two <br> Person in Society

The second phase helps a student to expand horizons by confronting major modern issues. Here the student learns to interpret and to make judgments through the methods used in the human sciences, philosophy, and religious studies. Building on the foundational skills and awareness of literature, history, science, and fine arts (from Phase One), the student delves into the issues and questions raised by economics, political science, psychology, and sociology. Along with this study, he or she also discovers the philosophical and theological assumptions which underlie the commonalities and differences of human experience in society today.

## Phase Three <br> Responsibility and Service

The third phase is designed to help the student prepare more directly for a life of service in the light of authentic human and Christian values. The first course in this phase is an ethics course, which is followed by a second theology course. In addition, the student takes one interdisciplinary course that addresses a major contemporary problem from a number of approaches. Finally, the student concludes his or her university education with a senior synthesis, which ties together liberal learning with professional studies. What is special about Phase Three is its emphasis on evaluative activities that are an essential part of responsible service.

How do these parts of the core curriculum fit together? Since many of the courses are prepared by teams of teachers, the courses connect with one another and build in sequence so that the student gets a sense of putting things together. In Phase One, the courses in writing and critical thinking, as well as some courses in history and literature, are connected and taught in clusters or sequences of 10 credits each. The same connections are made in Phase Two between the philosophy of the person and the first social science course. Finally, the entire curriculum begins with an integrated freshman year and ends with an interdisciplinary course and a senior synthesis in the final year.

## The University Core Curriculum

Additional requirements, exceptions, and stipulated courses are established by the schools and departments of the university and those sections of this bulletin should be consulted before choosing core courses. Check course descriptions in the respective departmental sections for prerequisites. All courses fulfilling core requirements must be taken for a letter grade. For each student, no individual course may fulfill more than one core curriculum requirement.

For all students admitted to the university fall 1991 or later, the following core requirements are in effect:

## Phase One <br> Foundations of Wisdom

Writing/Thinking Sequence ........................................................................................... 10
ENGL 110 Freshman English
PHIL 110 Introduction to Philosophy and Critical Thinking
These two courses are to be taken in sequence in a 10 -credit block during the fall and winter quarters of the freshman year.
History/Literature Sequence ..... 10
ENGL 120 Masterpieces of Literatureand
Choose one of the following two courses:
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
These two courses are to be taken in sequence or a cluster in a 10 -credit correlated blockduring the winter and spring quarters of the freshman year. (Students in the School ofScience and Engineering may take this sequence in spring of the first year and fall of thesecond year).
Please Note: Students in the College of Arts and Sciences must take HIST 120 for core and mayselect HIST 121 or 231 to fill the additional college history requirement.
Fine Arts ..... 5
FINR 120 or approved fine arts alternate: ART $100,120,160,211,212$; DRMA 211, 212,250,260 ; MUSC 200, 211 or 212
Mathematics ..... 5
Any five-credit course in mathematics on the 100 level (or above) for which the student isqualified.
Science ..... 5
Any five-credit laboratory science course for which the student is qualified (biology,chemistry, general science, or physics, but not computer science).
Phase Two Person in Society
Study of Person Sequence ..... 10
PHIL 220 Philosophy of the Human Person
Social Science I Choose: PSYC 120, SOCL 120, PLSC 120, or ISSS 120
These two courses are normally to be taken in sequence or in a cluster in a 10 -credit block.Social Science II5
Choose any five-credit course from among the following courses, as long as the disciplinechosen is different from Social Science I taken in the preceding sequence:
ANTH 230 Cultural Anthropology
ECON 271 Principles of Economics: Macro
ECON 272 Principles of Economics: Micro
PLSC 205 Intro to American Politics
PLSC 231 Diversity and Change
PLSC 253 Intro to Political Theory
PLSC 260 Intro to Global Politics
PSYC 210 Personality Adjustment
SOCL 210 American Society and Culture
SOCL 222 Social Psychology
Students who major in one of the social science disciplines must take both the requiredcore curriculum social science courses outside of their major department.Theology and Religious Studies Phase II5
Any approved five-credit course selected from TRST 200-299.
Phase ThreeResponsibility and ServiceEthics5
Choose one of the following options:
PHIL 312 Social Ethics
PHIL 345 Ethics
PHIL 351 Business Ethics
PHIL 352 Health Care Ethics
PHIL 353 Ethics in Science/Technology
PHIL 354 Ethics and Criminal Justice
PHIL 358 Communication Ethics
PHIL 359 Professional Ethics
TRST 380 Core Ethics: Christian Perspective
Theology and Religious Studies Phase III ..... 5
Any approved five-credit course selected from TRST 300-399.
Interdisciplinary Course ..... 3 to 5
Any three to five credits that deal with a contemporary issue from a multidisciplinaryperspective. A list of approved interdisciplinary courses will be published in the quarterlyschedule of classes and will usually be numbered 480 .
Senior Synthesis ..... 3A course or project of at least three credits approved by the student's major department andthe core director as fulfilling the objectives of the senior synthesis requirement.The two sequences in Phase One must normally be completed before taking courses inPhase Two. All of Phase Two must be completed before a student begins Phase Three.Exceptions to taking the core curriculum in sequence or in phases must have permissionof the dean of the College of Arts and Sciences or the director of the university corecurriculum.
Some programs have specific requirements and special allowances for filling core. See individual program sections.

## Essential Core for Undergraduates

Transfer students completing a first undergraduate degree who have fewer than 90 transfer credits will complete a minimum of 26 core credits at Seattle University: PHIL 210/220, TRST Phase II, TRST Phase III, interdisciplinary course, senior synthesis, and upperdivision ethics.

## Transfer Students with Junior Standing

Transfer students who matriculate with 90 or more credits take the following modified core curriculum:

## I. Core Prerequisite Courses

All of Phase One (except PHIL 110), and Social Science I and II courses from Phase Two. These courses may be taken at Seattle University or by transferring equivalent credits. A transferable associate of arts degree from a Washington community college fulfills these prerequisite courses.

## II. Core Bridge Courses

To be taken only at Seattle University:
PHIL 210 Philosophy of the Human Person ..... 5
TRST Elective 200-level ..... 5Consult philosophy and theology departmental descriptions for specific requirements forentering other courses.
III. Core Essential Phase Three CoursesTo be taken only at Seattle University:
Ethics ..... 5
Interdisciplinary Course ..... 3 to 5
Senior Synthesis ..... 3Consult each major for specific guidelines for courses that fulfill these essential PhaseThree requirements. Each quarterly schedule of classes will indicate interdisciplinarycourses, usually numbered 480 to 484 , and senior synthesis offerings, numbered 487through 490.

## Second Undergraduate Degree Essential Core

For a student seeking a second baccalaureate degree, essential core to be completed at Seattle University is a minimum of 13 credits: religious studies, senior synthesis appropriate to the new degree, upper-division ethics. Students who have taken no previous courses in religious studies or theology should take an TRST 200-level course: students who have one or more previous courses in religious studies or theology should take a TRST 300-level course.

# College of Arts and Sciences 

Wallace D. Loh, PhD, Dean

## Objectives

The College of Arts and Sciences, the oldest and largest undergraduate division of Seattle University, is the heart and foundation of Seattle University's mission to the undergraduate. That mission is to provide a liberal education in the humanities, the arts, and the social sciences along with selected graduate and professional programs.

Grounded in the Catholic and Jesuit intellectual tradition and respectful of their vision of the human person, the faculty of the college educate students for leadership, spiritual growth, responsible citizenship, and service through curricula both in the core program and in the majors that develop the whole person: the intellect, the imagination, the aesthetic sense, the capacity for ethical reflection, and skills of analysis and communication. Small classes, taught primarily by full-time faculty, and the availabilty of faculty advisers create a supportive as well as challenging environment for our community of learners.

It is the goal of the faculty that students be educated to think critically and to act responsibly so that they may be prepared to welcome the challenges of the future.

## Organization

The college departments are Communication; Ecological Studies; English; Fine Arts; Foreign Languages; History; Military Science; Philosophy; Political Science/Public Administration; Psychology; Sociology/Criminal Justice; Theology and Religious Studies.

The program divisions are Addiction Studies; Honors; International Studies; Liberal Studies; Prelaw; and Premajor. A certificate program is offered in Addiction Studies.
Each department chair or program director, in collaboration with the faculty, arranges study programs and counsels individual students. All programs are coordinated and supervised by the dean of the college. Students wishing to inquire about programs in detail should consult either the dean or the respective department chair or program director.

## Admission Requirements

Students entering the college must satisfy all entrance requirements for the university as outlined in the Admission section in this bulletin. Some departments list further requirements for admission into certain major programs. Concerning these, the respective departmental sections in this bulletin should be consulted.

## Degrees Offered

Bachelor of Arts
Bachelor of Criminal Justice
Bachelor of Public Administration
Bachelor of Science

## General Program Requirements

Students in the College of Arts and Sciences must satisfy the core curriculum requirements of the university given in this bulletin. Additionally, the College requires of all students a second five-credit course in history chosen from either HIST 121 or HIST 231.

All students with a major in the College of Arts and Sciences must also demonstrate competency in a foreign language through the 135 level. This competency is ordinarily achieved by successful completion of the three-course sequence: 115,125 , and 135 . Because these courses are a college requirement, no courses in the sequence may be taken on a pass/fail, correspondence, or audit basis. Placement into other than the beginning course of the sequence is achieved by acceptable performance on the Foreign Language Competency Examination. See the Foreign Language Department for details on the examinations. It is strongly recommended that students fulfill this program requirement as early as possible in their studies, preferably in their first year. Students educated to the age of 16 in a language other than English are presumed to have satisfied the goal of this requirement.

A minimum cumulative grade point average of 2.5 must be obtained in the major courses taken at Seattle University for degrees in the College of Arts and Sciences.
Additional specific requirements are set by the department or program division in which the student's major is pursued. For these requirements consult the respective sections in this bulletin.

## Premajor

Premajor is a freshman and sophomore program for students who wish to explore academic programs and careers before committing themselves to a major program. See the Premajor section for more information.

## Subject Majors

In all programs having a specific subject major, the number of required courses and hours varies according to the department or program division. The minimal number required in any subject major is 40 credits; majors in departments having core sequences must consist of 35 credits beyond the core sequence.

# Addiction Studies Program 

Steve Morris, M.A., Director

## Objectives

Addiction to alcohol and other drugs is the nation's major public health problem, with implications for family, business and industry, traffic safety, and the physical, mental, and spiritual health of millions of persons. The objective of these courses is to provide a strong background for work in treatment and rehabilitation, in education and prevention, in industry or in referral centers. They also supplement the training of degreed professionals as well as students preparing to work in psychiatry or psychology, nursing, social work, rehabilitation, criminal justice, or allied fields.

## Certificate in Alcohol/Drug Studies

Certificate candidates must meet regular University admission standards; students seeking only one or two classes may register as non-matriculated students. The certificate in Alcohol/Drug Studies is a combination of classroom instruction ( 23 credits) and supervised field experience ( 3 credits) under experienced counselors. The certificate program should be completed within three years. In the final term of coursework for the certificate, the student files a certficate application with the registrar. Deadlines are: for fall completion, apply by October 30 ; for winter, January 30 ; for spring, April 30 ; for summer, July 30. In order to earn the Certificate in Alcohol/Drug Studies, students must complete the following:

## I. Certificate Program Requirements

Twenty-six credits in addiction studies, including:
$\qquad$Choose one of the following two courses3ADST 480 Introduction to Alcohol and Drug AddictionPSYC 480 Introduction to Alcohol and Drug Addiction
ADST 402 Counseling, Alcohol and Drugs ..... 3
ADST 405 Addiction: Law and Public Policy ..... 2
ADST 407 Field Experience ..... 3
ADST 412 Group Process in Treatment ..... 3
ADST 414 Case Management and Record Keeping ..... 3
ADST 418 Addiction and the Family ..... 3
ADST 428 Ethics for Addiction Professionals ..... 3
ADST 429 Pharmacology of Alcohol and Drugs ..... 3

Please Note: A minimum cumulative grade point average of 2.5 must be earned in all course work that applies to this certificate.

For those planning to work as a chemical dependency counselor: The Division of Alcohol and Substance Abuse sets standards for working as a Chemical Dependency Counselor (CDC) in the State of Washington. This Certificate in Alcohol and Drug studies includes the specific college courses in chemical dependency which are required. However, status as a Chemical Dependency Counselor also requires additional internship hours, other college courses in related subjects, and non-academic training. Students planning to pursue a career as an addictions counselor should become familiar with the complete requirements established by D.A.S.A.

## Addiction Studies Courses

ADST 402 Counseling, Alcohol and Drugs 3
Patient-counselor relationships: principles and techniques. Intake and intervention vs. long-range therapy. Directive vs. non-directive counseling, motivation, confrontation. Legal and ethical responsibilities of alcohol/drug counselors. Role-playing, videotape playback. Prerequisite: ADST 480.


#### Abstract

ADST 405 Addiction: Law and Public Policy 2 Legal implications and consequences of alcohol-and drug-related offenses. Deferred prosecution. Uniform Alcoholism and Intoxication Act. Impaired driving laws. Court structures and jurisdictions. Pre- or corequisite: ADST 480.


ADST 407 Field Experience 3
Supervised work in an agency, clinic, rehabilitation center or referral center. Oral and written reports by student required. Prerequisite: ADST 402. Mandatory CR/F grading. (Graduate counseling students may substitute COUN 552)

## ADST 408 Field Experience 2 3

Supervised work in an agency, clinic, rehabilitation center or referral center. Oral and written reports by student required. Prerequisite: ADST 407. Mandatory CR/F grading.

## ADST 411 Advanced Counseling

Instruction and supervised practice in techniques of special value in counseling alcoholics and other drug addicts. Videotape equipment used. Prerequisite: ADST 402.

## ADST 412 Group Process in Treatment 3

Dynamics of group interaction; techniques and theory with application to addiction treatment; Role playing as a means to development of self awareness. Prerequisite: ADST 402.

## ADST 414 Case Management and Record Keeping 3

Procedures and skills used in alcoholism and other drug addiction referral and treatment agencies. Intake interview, client evaluation, case-writing, pre-sentence report, recordkeeping and confidentiality. Prerequisite: ADST 402.

## ADST 417 Employee Assistance Programs <br> 2

EAPs offer assessment and referral services to all employees troubled by alcoholism, other drug problems, emotional distress, or family crises. Policies; implementing programs; training supervisors; evaluating cost-effectiveness.
ADST 418 Addiction and the Family 3
Study of the family system; its function, purpose, and survival mechanisms. The process of family addiction; the disease and its dysfunction. Short-term versus long-term recovery goals. The intervention process; analysis and realistic goals. Prerequisite: ADST 480.

## ADST 426 Addiction and Mental Iliness

Dual diagnosis: when psychiatric disorders coexist with addiction. Psychiatric terminology, clinical symptoms of mental illness; use of DSM-IV in differential diagnosis; treatment and referral. Prerequisite: ADST 480.

## ADST 427 Intervention Techniques <br> 2

Theory and practice of intervention when a patient is unable to recognize the need for treatment. Emphasis on framework, preparation, process, and referral; legal and ethical implications. Prerequisite: ADST 402.

## ADST 428 Ethics for Addiction Professionals 3

Common problems of counselors and administrators: rights of patients, confidentiality, discrimination, incompetence, fees, personal relationships with patients, inter- and intraprofessional relationships. Cooperation with A.A., other twelve-step groups. Prerequisite: ADST 480 .

## ADST $429 \quad$ Pharmacology of Alcohol and Other Drugs 3

Pharmacology and physiology of psychoactive drugs including alcohol, prescription and non-prescription drugs. Interactions among drugs, poly-drug abuse. Actions of drugs on the central nervous system; damage to the brain, liver and other organs. Recovery from addiction. Prerequisite: None.

## ADST 480 Introduction to Alcohol and Drug Addiction 3

History, scope, physiological, social, psychological, and family aspects of alcohol and other drug problems. Impaired driving. Progression and symptoms of addiction; types of alcoholics. Nature of addictive diseases: causality, treatment, and prevention. This course will satisfy the core interdisciplinary requirement. (Also offered as Psyc 480)

| ADST 491 | Special Topics | 1 to 5 |
| :---: | :---: | :---: |
| ADST 492 | Special Topics | 1 to 5 |
| ADST 493 | Special Topics | 1 to 5 |
| ADST 496 | Independent Study | 1 to 3 |
| Open only to Prerequisite: | ts with sufficient academ ssion of Director. | ent study. |

# Communication 

Gary Atkins, MA, Chairperson

## Objectives

The Communication Department provides courses designed to give students an awareness of the role of communication in society, as well as practical experience in developing their talents in oral, written, and visual communication. The communication studies courses offer a blend of theoretical understanding and practical experience in a variety of contexts, including interpersonal communication, small group communication, and organizational communication.

The journalism and mass communication courses develop students' competence in gathering and disseminating stories through the mass media, using reporting, writing, and visual skills. Journalism and mass communication majors can emphasize preparation for journalistic careers in print, broadcast, or computer media, or public relations careers for government or organizations.

## Degree Offered

Bachelor of Arts

## Majors Offered

Communication Studies
Journalism/Mass Communication
(with specialization in either journalism or public relations)

## Minors Offered

Communication Studies
Journalism/ Mass Communication

## Teacher Education

The teacher preparation program is a graduate-level program only. Those students planning to become elementary teachers or secondary journalism or speech teachers should contact the Master in Teaching program at (206) 296-5759 to be assigned an adviser to ensure that they meet state requirements for an academic major as well as the specific requirements for admission to the MIT program.

## Bachelor of Arts Major in Communication Studies

In order to earn the bachelor of arts degree with a major in communication studies, students must complete a minimum of 180 credits with a cumulative grade point average of 2.0 and major/program grade point average of 2.5 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST 120 Origins of Western Civilization ..... 5
ENGL 120 Masterpieces of Literature ..... 5
MATH $\quad 107$ or 110 or above ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (PHIL 358 recommended) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary Course (CMJR 480 recommended) ..... 3 to 5
Senior Synthesis (CMJR 490 required*) ..... 5
See detailed core curriculum information in this bulletin.*Major requirement
II. College of Arts and Sciences Requirements
Foreign Language 115, 125, 135 or equivalent ..... 15
Please Note: All students with a major in the College of Arts and Sciences must demonstrate competency in a foreign language through the 135 level. This competency is ordinarily achieved by successful completion of the three-course sequence: 115,125 , and 135 . Because these courses are a college requirement, no courses in the sequence may be taken on a pass/ fail, correspondence, or audit basis. Placement into other than the beginning course of the sequence is achieved by acceptable performance on the Foreign Language Competency Examination. See the Foreign Language Department for details on the examinations.
Choose one of the following courses: ..... 5
HIST 121 Studies in Modern Civilization
HIST 231 Survey of the United States
III. Major Requirements
Sixty credits in communication studies, including:
Area I-Communication Foundation
CMJR 205 Messages in Action ..... 5
CMJR 225 Dynamics of Communication ..... 5
CMJR 245 Media, Society, and Individual ..... 5
CMJR 400 Communication Rights and Law ..... 5
Area II—Rhetorical Study
CMJR 230 Public Speaking ..... 5
CMJR 350 Persuasion ..... 5
CMJR 431 Communication and Motives ..... 5
Area III- Social Science
Choose three social science courses (with approval of adviser) from the following: ..... 15
CMJR 355 Interpersonal Communication
CMJR 361 Small Group Communication
CMJR 383 Organizational Communication
CMJR 384 Conflict Resolution
CMJR 385 Cross-Cultural Communication
Area IV-Communication Electives
Choose 300-400-level communcation electives (with adviser approval) ..... 10
Bachelor of Arts
Major in Journalism/Mass Communication with Specialization in Journalism
In order to earn the bachelor of arts degree with a major in journalism/ mass communi-cation with a specialization in journalism, students must complete a minimum of 180credits with a cumulative grade point average of 2.0 and major/department grade pointaverage of 2.5 , including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST 120 Origins of Western Civilization ..... 5
ENGL 120 Masterpieces of Literature ..... 5
MATH $\quad 107$ or 110 or above ..... 5
Lab Science .....  5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics(PHIL 358 recommended) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary Course (CMJR 480 recommended) ..... 3 to 5
Senior Synthesis (CMJR 489 required*) ..... 5
See detailed core curriculum information in this bulletin.
*Major requirement
II. College of Arts and Sciences Requirements
Foreign Language 115, 125, 135, or equivalent ..... 15
Please Note: All students with a major in the College of Arts and Sciences must demonstratecompetency in a foreign language through the 135 level. This competency is ordinarilyachieved by successful completion of the three-course sequence: 115,125 , and 135 . Becausethese courses are a college requirement, no course in the sequence may be taken on a pass/fail, audit, or correspondence basis. Placement into other than the beginning course of thesequence is achieved by acceptable performance on the Foreign Language CompetencyExamination. See the Foreign Language Department for details on the examinations.
Choose one of the following two courses: ..... 5
HIST 121 Studies in Modern Civilization
HIST 231 Survey of the United States
III. Major Requirements
Sixty credits in communication courses, including:
Area I-Communication Foundation
CMJR 205 Messages in Action ..... 5
CMJR 225 Dynamics of Communication ..... 5
CMJR 245 Media, Society, and Individual ..... 5
CMJR 400 Communication Rights and Law ..... 5
Area II-Additional Major Requirements
CMJR 210 Introduction to Media Writing ..... 5
CMJR 220 Media Writing II ..... 5
CMJR 300 Investigative Information Gathering ..... 5
Choose one of the following four courses: ..... 5
CMJR 305 Broadcast Writing
CMJR 310 Public Relations Writing
CMJR 315 Literary Journalistic Writing
CMJR 320 Persuasive Writing
Choose one of the following two courses: ..... 5
CMJR 330 Introduction to Graphic CommunicationCMJR 335 Introduction to Video Communication
Choose 300-400-level communication electives, approved by adviser ..... 10
Choose practice/internship from CMJR 280-2, 380-2, or 495 ..... 5
Bachelor of Arts
Major in Journalism/Mass Communication with Specialization in Public Relations
In order to earn the bachelor of arts degree with a major in journalism/ mass communi-cation with a specialization in public relations, students must complete a minimum of 180credits with a cumulative grade point average of 2.0 and major/department grade pointaverage of 2.5 , including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST 120 Origins of Western Civilization ..... 5
ENGL 120 Masterpieces of Literature ..... 5
MATH $\quad 107$ or 110 or above ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (PHIL 358 recommended) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary Course (CMJR 480 recommended) ..... 3 to 5
Senior Synthesis (CMJR 489 required*) ..... 5
See detailed core curriculum information in this bulletin.*Major requirement
II. College of Arts and Sciences Requirements
Foreign Language $115,125,135$, or equivalent ..... 15
Please Note: All students with a major in the College of Arts and Sciences must demonstratecompetency in a foreign language through the 135 level. This competency is ordinarily
achieved by successful completion of the three-course sequence: 115,125 , and 135 . Because these courses are a college requirement, no course in the sequence may be taken on a pass/ fail, correspondence, or audit basis. Placement into other than the beginning course of the sequence is achieved by acceptable performance on the Foreign Language Competency Examination. See the Foreign Language Department for details on the examinations.
Choose one of the following two courses: ..................................................................... 5
HIST 121 Modern Western Civilization
HIST 231 Survey of the United States

## III. Major Requirements

Sixty credits in communication courses, including:
Area I-Communication Foundation
CMJR 205 Messages in Action ..... 5
CMJR 225 Dynamics of Communication ..... 5
CMJR 245 Media, Society, and Individual ..... 5
CMJR 400 Communication Rights and Law ..... 5
Area II-Additional Major Requirements
CMJR 210 Introduction to Media Writing ..... 5
CMJR 220 Media Writing II ..... 5
CMJR 370 Public Relations: Cases and Strategies ..... 5
Choose one of the following four courses: ..... 5
CMJR 305 Broadcast Writing
CMJR 310 Public Relations Writing
CMJR 315 Literary Journalistic WritingCMJR 320 Persuasive Writing
Choose one of the following two courses: ..... 5
CMJR 330 Introduction to Graphic CommunicationCMJR 335 Introduction to Video Communication
Choose 300-400-level communication electives, approved by adviser ..... 10
Choose practice/internship from CMJR 280-2, 380-2, 495 ..... 5
Minor in Communication Studies
In order to earn a minor in communication studies, students must complete 30 credits in communication, including:
CMJR 205 Messages in Action ..... 5
CMJR 225 Dynamics of Communication ..... 5
CMJR 245 Media, Society, and Individual ..... 5
CMJR 400 Communication Rights and Law ..... 5
CMJR Approved electives (300-level or above) ..... 10
See policy for minors on p. 43.
Minor in Journalism/Mass Communication
In order to earn a minor in journalism/mass communication, students must complete ..... 30credits in communication, including:CMJR 205 Messages in Action5
CMJR 210 Introduction to Media Writing ..... 5
CMJR 220 Media Writing II ..... 5
CMJR 245 Media, Society, and Individual ..... 5
CMJR 400 Communication Rights and Law ..... 5
CMJR Approved elective (300-level or above) ..... 5
See policy for minors on p. 43
Communication Courses
CMJR 205 Messages in Action ..... 5
Rhetorical examination of the relationship between message content and effects onaudiences in a variey of media, including speeches, newspapers, conversations, advertise-ments, essays, television, film, and web. Students develop skills of critical interpretationand evaluation through close reading of messages. Assignments include a major rhetoricalcriticism essay and the construction of oral, written, and visual messages.
CMJR 210 Introduction to Media Writing ..... 5
Narrative choices and styles common to the non-fiction mass media; using description anddialogue to effectively convey news and information; targeting stories for media audiences;writing with computers and on deadline; basic information gathering, using interviewingand library sources. Departmental permission required.
CMJR 220 Media Writing II ..... 5
Writing and editing news and feature stories for the print media. Practice in writing, sourcedevelopment, and coverage of beats. Prerequisite: CMJR 210 and permission. (Previouslytitled Writing for Journalism)
CMJR 225 Dynamics of Communication ..... 5Theoretical approaches to understanding the process of communication as it occurs inboth interpersonal and media settings. Emphasis on research approaches and conceptsfrom both social science and interpretive perspectives. (Formerly CMJR 201)
CMJR $230 \quad$ Public Speaking ..... 5Theory and practice of constructing, presenting, and analyzing speeches. Emphasis onaudience adaptation and the development of critical listening skills. Performance-orientedcourse. Departmental permission required.
CMJR 240 Introduction to Photography ..... 5Introduction to basic theory, techniques, and history of black-and-white still photography.Emphasis on use of the camera as an effective tool of communication. Students must have use ofadjustable 35 mm camera. Lab fee.
CMJR 245 Media, Society and Individual ..... 5Contemporary problems and issues in communication, such as the effect of technology nowand in the past, establishing credibility, ethical concerns about violence and gender orracial stereotyping, and the role of mass media in diverse political and economic systems.(formerly CMJR 200)
CMJR 280 Practicum I ..... 1
CMJR 281 Practicum II ..... 1
CMJR 282 Practicum III ..... 1Supervised on-campus practice in writing and editing stories for media audiences.
CMJR 291 Special Topics ..... 1 to 5
CMJR 292 Special Topics ..... 1 to 5
CMJR 293 Special Topics ..... 1 to 5
CMJR 300 Investigative Information-Gathering ..... 5Using interview, document, survey, and computer-assisted information-gathering tech-niques, including relational databases, to conduct research for journalism, public rela-tions or other related professions. Prerequisite: CMJR 220 or permission. (Previously titledReporting Public Affairs.)
CMJR 305 Broadcast Writing ..... 5Techniques of writing news and features for the electronic media. Writing for sound andpictures. Broadcast media style considerations. Prerequisite: CMJR 220 and permission.
CMJR $310 \quad$ Public Relations Writing ..... 5Writing and editing press releases, reports and other materials for public relations.Prerequisite: CMJR 210 and permission. (formerly CMJR 221)
CMJR 315 Literary Journalistic Writing ..... 5
Study and practice of the literary tradition within journalism. Students develop non-fictionnarrative articles using techniques of characterization, description, and plot development.Includes study of "New Journalism" authors. Prerequisite: CMJR 220 or permission.(Previously titled Magazine and Feature Writing)

## CMJR $320 \quad$ Persuasive and Critical Writing

5Principles of persuasive writing for a media audience; constructing editorials, opinioncolumns, and critical reviews; study of classical and contemporary models. Prerequisite:CMJR 220 or permission.CMJR 330 Introduction to Graphic Communication ..... 5Fundamentals of visual literacy and communication in the print and web media. Usingcomputer-assisted graphic design to communicate ideas and information to audiences.Junior or senior standing.
CMJR 332 Advanced Graphic Communication ..... 5Advanced techniques of visual communication in the printed and/or interactive massmedia. Specific ethical considerations in creating and using visual imagery. Prerequisite:CMJR 330.
CMJR 335 Introduction to Video Communication ..... 5Fundamentals of visual literacy and communication in the electronic media, particularlyvideo. Emphasis on the reporting, scripting, voicing and editing of text and visuals forstories meant to inform audiences. Prerequisite: CMJR 305 or permission. (Previouslytitled Production and Editing: Electronic Media)ethical considerations in using the medium are discussed. Prerequisite: CMJR 335

## CMJR 340 Advanced Photography <br> 5

Photographic "seeing" and printing technique. Individual projects emphasize advanced topics in black-and-white photography. Discussion of ethical issues confronting photographers. Students must have use of adjustable 35 mm camera. Lab fee. Prerequisite: CMJR 240 or equivalent.

## CMJR 350 Persuasion

 5The study of communication as a means of personal and social influence. Includes examination of psychological and rhetorical foundations of persuasion and the critical analysis of persuasive messages in politics, advertising, and the mass media. Students learn techniques of persuasion and apply those techniques in a persuasive campaign. Discussions explore the ethical and social implications of contemporary persuasive techniques. Prerequisites: CMJR 205, 225, and 245 or permission.

## CMJR 355 Interpersonal Communication 5

Communication theory and its application to both intimate and non-intimate relationships between two or more people. This course takes a developmental perspective, beginning with initial interactions and movement toward relational closeness and commitment, as well as disengagement. Examination of the expression of interpersonal needs, expectations, and tensions. Theory will be applied to experiential assignments designed to increase awareness of relational communication via observation, simulation, and interviews.

## CMJR 361 Small Group Communication

5
Study of the dynamics of communication in everyday small groups, with particular attention to the behavior of decision-making groups. Examination of issues such as the development of group cohesion and identity, roles and norms, conflict, leadership, and decision-making processes. Students apply their understanding of these issues in group projects designed to provide practical experience in group performance. Prerequisite: CMJR 225 or permission.

CMJR $370 \quad$ Public Relations: Cases and Strategies 5
Public relations as a management function; policies, procedures, and problems; program analysis and case study. Ethical issues confronting public relations professionals. Prerequisite: junior or senior standing.

## CMJR 380 Practicum IV I

CMJR 381 Practicum V 1
CMJR 382 Practicum VI 1
Supervised work in writing, editing, or graphics on campus media. Prerequisite: CMJR 280-2.

## CMJR 383 Organizational Communication <br> 5

Study of theories, process, and practice of communication in organizations, framed around the delicate balances between creativity and constraint, individual and collective needs, task and social outcomes in organizational life, from socialization to disengagement. Students participate in mini-internships in non-profit organizations, which ground more theoretical discussions and expand professional experience in organizational communication. Prerequisite: CMJR 225 or permission.

## CMJR 384 Conflict Resolution

 5Theory and techniques of conflict resolution and the application of theory to situational contexts. Focus placed on styles of resolving conflicts, situational appropriateness and effectiveness of styles, mediation theory, and games theory. Prerequisites: CMJR 225 and junior level standing.

## CMJR 385 Cross-Cultural Communication 5

Study of the relationship between culture and communication for the international encounter. This course is designed for an active and intense exchange between American and international students that examines how culture, second language acquisition, crosscultural adaptation, communicative competence, and media representations dramatically shape the cross-cultural interaction. Readings include theoretical, social science, and literary texts. Oral skills will be developed through dyadic, small group, and class discussion. Written skills will be developed in narrative, interpretive, and analytical short papers. Outside activities designed to promote cross-cultural interaction.

| CMJR 391 | Special Topics | 1 to 5 |
| :--- | :--- | :--- |
| CMJR 392 | Special Topics | 1 to 5 |
| CMJR 393 | Special Topics | 1 to 5 |

CMJR 400 Communication Rights and Law 5
Philosophy and law of freedom of expression in the United States; judicial and legislative approaches defining the right to communicate. The impact of technology on legal freedoms. Study of specific legal issues such as libel, the right to privacy, regulation of pornography, the right to gather information. Prerequisite: senior standing or permission.
CMJR 431 Communication and Motives: Rhetorical Theory 5 Study of recurrent issues in the history of rhetorical thought from the ancient Greeks to 20th century America with special attention to the relationship between conceptions of rhetorical practice and social/cultural conditions. Exploration of the scope and nature of rhetoric in contemporary society. Students learn methods of rhetorical criticism and apply those critical approaches in class discussions and a major interpretive/analytic essay. Prerequisite: CMJR 350 and senior standing.

## CMJR 480 Interdisciplinary Core Courses 3 to 5 <br> Title and content vary.

## CMJR 489 Senior Synthesis: Media and Social Responsibility 5

Examination of the role of journalism, public relations, mass media and media technology in contributing to social change and social justice in various communities and cultures. Special field projects or undergraduate thesis required. Senior synthesis course for all journalism/ mass communication majors. Open to non-majors with instructor permission.

## CMJR 490 Senior Synthesis: Advocacy and Social Change

 5Examination of the role of communication and the communicator in catalyzing social change and social justice in various communities. Advanced theories of persuasion and change. May involve undertaking field projects. Senior synthesis course for communication studies majors. Open to non-majors with instructor permission.
CMJR 491 Special Topics ..... 1 to 5
CMJR 492 Special Topics ..... 1 to 5
CMJR 493 Special Topics ..... 1 to 5
Title and content vary.
CMJR 495 Internship ..... 1 to 5By permission only. When internship credit is required in the program, a maximum of threecredits in transfer is allowed toward the requirement. See department for additionalguidelines.
CMJR 496 Independent Study ..... 1 to 5By permission only.

## Criminal Justice

Charles Lawrence, Ph.D., Chair

## Objectives

The Criminal Justice major gives students an overview of the entire criminal justice system, and then encourages them to consider the component parts. Courses are offered in the areas of research and planning, criminal law, punishment, criminal typologies, the victim, and corrections. Field placements crown this effort by placing senior students in agencies related to their special interests in order that they might test their acquired knowledge in a professional setting and situation.
The major is designed to accommodate entering freshmen, transfer students, and professionals. For professionals, especially corrections and police officers, we offer courses which may not have been covered in their academy training.

The driving spirit of the major is one which reflects the basic foundation of Jesuit education-reflection and action. We seek to develop a spirit of inquiry in students that ask "why not?" of things not tried. The major provides a facility for thinking critically and reflectively about the issues of justice, law, and the systems that deal with the offender and victim in our complex society.

Criminal justice graduates may qualify for careers in public and private law enforcement, crime prevention, juvenile justice facilities and programs, corrections, law enforcement training, education and planning, and other components of the criminal justice system, including law school and the subsequent practice of law.

## Degree Offered

Bachelor of Criminal Justice

## Major Offered

Criminal Justice

## Minor Offered

Criminal Justice

## Bachelor of Criminal Justice Major in Criminal Justice

In order to earn the bachelor of criminal justice degree, students must complete a minimum of 180 quarter credits with a cumulative grade point average of 2.0 and a major/ program grade point average of 2.5 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English .................................................................................. 5
PHIL 110 Introduction to Philosophy and Critical Thinking .............................. 5
HIST 120 Origins of Western Civilization .......................................................... 5
ENGL 120 Masterpieces of Literature ................................................................. 5
MATH 107 or 110 or above ......................................................................... 5
Lab Science ........................................................................................................ 5
FINR 120 or approved fine arts alternate ......................................................... 5
PHIL 220 Philosophy of the Human Person ....................................................... 5
Social Science I ...................................................................................................... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary Core Course ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Foreign Language $115,125,135$, or equivalent ..... 15
Please Note: All students with a major in the College of Arts and Sciences must demonstrate competency in a foreign language through the 135 level. This competency is ordinarily achieved by successful completion of the three-course sequence: 115,125 , and 135 . Because these courses are a college requirement, no course in the sequence may be taken on a pass/ fail, correspondence, or audit basis. Placement into other than the beginning course of the sequence is achieved by acceptable performance on the Foreign Language Competency Examination. See the Foreign Language Department for details on the examinations.
Choose one of the following two courses: ..... 5
HIST 121 Studies in Modern Civilization
HIST 231 Survey of the United States
III. Major Requirements
Fifty-five credits in criminal justice, including:
CRJS 110 Introduction to Criminal Justice ..... 5
CRJS 209 Criminological Theories ..... 5
CRJS 300 Society and Justice ..... 5
CRJS 302 Criminal Justice Research Methods ..... 5
CRJS 312 Criminal Law ..... 5
CRJS Electives ..... 30
(A maximum of 10 credits in electives may be taken in courses chosen from the list ofapproved courses that follow the course descriptions below.)
Please Note: 1. Only thirty credits may transfer to the criminal justice major from a community college. 2. Students are encouraged to take PHIL 354 Ethics and Criminal Justice to satisfy their university core ethics requirement.

## Minor in Criminal Justice

In order to earn a minor in criminal justice, students must complete 30 credits in criminaljustice, including the following:CRJS 110 Introduction to Criminal Justice ..... 5
CRJS 209 Criminological Theory ..... 5
CRJS 300 Society and Justice ..... 5
CRJS Electives ..... 15
(A maximum of 5 credits in electives may be taken in courses chosen from the list ofapproved courses that follow the course descriptions below.)See policy for minors on p. 43.

## Criminal Justice Courses

## CRJS 110 Introduction to Criminal Justice 5

A survey of criminal justice processes from arrest through release, with attention to the interrelationship between the police, the courts, and corrections. CRJS 110 or equivalent is required for all criminal justice majors.

## CRJS 200 Deviance and Social Control 5

Introduction to psychological and sociological theories of deviance with attention to the development of deviant identity, stigma management, and the cultural construction of deviance and social control of particular individuals and groups. (formerly titled Deviant Behavior) Also offered as SOCL 219.

## CRJS 209 Criminological Theories 5

A study of the theories from anthropology, biology, criminology, economics, political science, psychology, and sociology that are used to explain deviant and criminal behavior. Required for all criminal justice majors.
CRJS 291 Special Topics 1 to 5
CRJS 292 Special Topics 1 to 5
CRJS 293 Special Topics 1 to 5
CRJS $300 \quad$ Society and Justice 5
An analysis of the meaning of justice in Western culture, and its relationship to the criminal justice system. Required for all criminal justice majors. Prerequisite: CRJS 110 or permission of instructor.

CRJS 302 Criminal Justice Research Methods 5
A review of statistical procedures and research designs used in criminal justice research. Introduction to the stages of the research process including design, data collection, analysis, and presentation. Required of all criminal justice majors. Prerequisite: CRJS 110 Introduction to Criminal Justice or eligibility as determined by instructor after first day of class. (formerly CRJS 218)
CRJS 303 Juvenile Justice 5
Overview of the juvenile justice system and the handling of juveniles by the police, the courts, and corrections. Discussion of contemporary issues in juvenile justice, including youth violence and its prevention and control in American society.
CRJS $306 \quad$ Police and Society 5
Study of the role of the police in society with attention to the origins of policing, the nature of police organizations and police work, and the relationship between the police and the public. (formerly titled Police and Community)

CRJS 308 Adult Corrections 5

Survey of the history, philosophy, and practices of adult institutional and community corrections. Analysis of contemporary issues in corrections and correctional reform.
CRJS 310 The American Court System 5
Analysis of the structure and function of the American court system with attention to the roles of the judge, prosecutor, defender, defendant, jury, victim, witnesses and court administrator.

## CRJS 312 Criminal Law

Study of the criminal law processes from detention to appeal. State and federal rules of criminal procedure. Understanding of policies, due process, self-incrimination, search and seizure, right to counsel, and other constitutional issues. Required of all crminial justice majors. Prerequisite: CRJS 110 or permission of instructor.

## CRJS 318 <br> History and Philosophy of Punishment

5
A social history of the punishment response to the phenomenon of crime, considering the origins, principles, science, and society's justification for punishment. (formerly titled The Punishment Response)

CRJS 391 Special Topics 1 to 5
CRJS 392 Special Topics 1 to 5
CRJS 393 Special Topics 1 to 5
CRJS 400 Victimology 5
A survey of the victim-offender relationship, including the origin and scope of victimology, the victim and society, the victim and the administration of justice, and the social reaction to victimization.

CRJS 401 Criminal Typologies 5
Study of the differentiation of criminal types in criminal justice policy and practice. Overview of the theoretical foundations of typology construction, criminal profiling, and the characteristics of offender types. The application of criminal typologies is discussed with attention to the use of typologies in police profiling, criminal law and courtroom proceedings, and correctional classification, management and treatment.

## CRJS $405 \quad$ Feminist and Multicultural Criminology

Exploration of feminist and multicultural perspectives in criminology and justice. Analysis of sexism and racism in criminological theory and the administration of justice. Study of gender, ethnic and racial differences in aggression and criminal behavior with attention to the development of feminist and multicultural models of crime and justice.

## CRJS 459 Research Practicum

Hands-on experience conducting crime and justice-related research. Involvement in all phases of the research process - literature review, research design, contacting agencies, data collection and analysis, and preparation of a paper for presentation at an academic and/or professional conference. Students may develop an original project or may assist a faculty member with ongoing research. CR/F grading mandatory. Prerequisite: CRJS 302, upper division standing, and permission.

| CRJS 487 | Senior Synthesis | $\mathbf{3}$ to $\mathbf{5}$ |
| :--- | :--- | ---: |
| CRJS 491 | Special Topics | $\mathbf{1}$ to $\mathbf{5}$ |
| CRJS 492 | Special Topics | $\mathbf{1}$ to $\mathbf{5}$ |
| CRJS 493 | Special Topics | $\mathbf{1}$ to |
| CRJS 495 | Internship | $\mathbf{5}$ |
| Direct observation, supervised practical experience, and academic study in a selected law <br> enforcement agency or organization in the criminal justice system. CR/F grading manda- <br> tory. Prerequisite: upper division standing and permission. (formerly CJ 458) |  |  |


| CRJS 496 | Independent Study | 1 to 5 |
| :--- | :--- | :--- |
| CRJS 497 | Directed Reading | 1 to 5 |
| CRJS 498 | Directed Research | 1 to 5 |

For criminal justice majors a maximum of 10 credits in electives may be taken in courses outside of the major; five credits may apply to the minor. The following courses from outside Criminal Justice are approved as electives in Criminal Justice.

ADST 405 Addiction: Law and Public Policy
ADST 480 Introduction to Alcohol \& Drug Addiction (3 Cr.)
PHIL 326 Philosophy of Law
PLSC 280 Principles of Public Administration
PLSC 303 Black Power in American Society
PLSC 306 Native American Politics
PLSC 321 Constitutional Law I - Structure and Process
PLSC 322 Constitutional Law II - Civil Liberties
PLSC 378 Planning, Budgeting, and Information
SOCL 316 Class and Inequality
SOCL 317 Race and Ethnicity
SOCL 318 Gender Roles and Sexuality
SOCL 333 Sociology/Anthropology of Law
SOCL 424 Sociology of Mental Illness

# Ecological Studies 

Co-Directors:
David C. Brubaker, PhD
Trileigh Stroh, PhD
Faculty:
David C. Brubaker, PhD, Associate Professor of Biology
Gary Chamberlain, PhD, Professor of Theology and Religious Studies
Daniel A. Dombrowski, PhD, Professor of Philosophy
David D. McCloskey, PhD, Associate Professor of Sociology
Tim Sorenson, PhD, Associate Professor of Economics and Finance
Trileigh Stroh, PhD, Assistant Professor of Ecological Studies
Richard Young, PhD, Associate Professor of Political Science

## Objectives

Ecological Studies is a multi-disciplinary program that offers an innovative approach to understanding the environmental crisis and developing strategies for its solution. The program links the natural sciences with the social sciences and humanities in an integrative sequence that moves from the earth, to life, to human beings and spirit. Ecology provides the framework for seeing the whole of the web of natural systems, and for discovering the human's role within them.

In addition to a solid academic grounding, students will develop skills and knowledge through field studies and internships within the community. These experiences offer students opportunities to learn about problems first-hand, to test ideas in the field, and to understand whole systems in nature directly through study of various local and regional landscapes. Internships give students an opportunity to work with groups and leaders in the community while they provide first-hand experiences into issues and dynamics of environmental policies, organizations and agencies, advocacy, planning, and consulting.

Students majoring in ecological studies will be prepared to pursue further graduate studies in a variey of areas such as environmental studies, environmental law, forestry, sociology and history, geography, the political sciences, masters in teaching, and planning. They will find rewarding careers in federal, state, and local environmental regulatory agencies, consulting firms, environmental businesses, environmental education, and in a variety of local and regional land-use planning positions.

## Degree Offered

Bachelor of Arts

## Major Offered

Ecological Studies

## Minor Offered

Ecological Studies
Bachelor of Arts
Major in Ecological Studies
In order to earn the bachelor of arts degree with a major in ecological studies, studentsmust complete a minimum of 180 credits with a cumulative grade point average of 2.0 anda major grade point average of 2.5 , including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
MATH $\quad 118$ or 120 or above ..... 5
Lab Science satisfied by ECST 100 .....
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (ECON 272 required) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics ..... 5
Theology and Religious Studies III satisfied by TRST 347 ..... *
Interdisciplinary ..... 3/5
Ecological Studies Senior Synthesis ..... 3
II. College of Arts and Sciences RequirementsHistory requirement satisfied by HIST 351Foreign Language $115,125,135$, or equivalent15
Please Note: All students with a major in the College of Arts and Sciences must demonstratecompetency in a foreign language through the 135 level. This competency is ordinarilyachieved by successful completion of the three-course sequence: 115,125 , and 135 . Becausethese courses are a college requirement, no courses in the sequence may be taken on a pass/fail, correspondence, or audit basis. Placement into other than the beginning course of thesequence is achieved by acceptable performance on the Foreign Language CompetencyExamination. See the Foreign Language Department for details on the examinations.
III. Major Program Requirements
Seventy-five credits, up to 20 of which may be counted both for the major and core requirements. Courses marked with an * could satisfy both the major and the core.
Area I. Natural Sciences: 20 credits, including:
ECST 100 Introduction to Geosystems* ..... 5
ECST 200 Introduction to Ecological Systems ..... 5
Choose one of the following two courses in physical science: ..... 5
ISSC 120 Introduction to Geology
ISSC 207 Air and Water
Choose one of the following four options in ecological science: ..... 5
BIOL 275 Marine BiologyBIOL 470 General EcologyCEEGR 477 Selected Topics: Restoration of Aquatic EcosystemsAny summer course from Blakely Island Field Studies
Area II. Social Sciences: 20 credits including:
PLSC 300 Environmental Politics ..... 5
SOCL 202 Human Ecology and Geography ..... 5
Choose one of the following four courses: ..... 5
ANTH 230 Cultural Anthropology*
PLSC 306 Native American Politics*
PLSC 456 The Human Prospect*
PSYC 481 Ecological Psychology*
Choose a. or series b.: ..... 5
a. ECON 468 Natural Resources and Environmental Economics
b. CEEGR 476 Environmental Law and Impact Studies (3)
ECST 491 Special Topics: Impact Statement Analysis (2)
Area III. Humanities: 20 credits, including:
HIST 351 Environmental History* ..... 5
PHIL 309 Environmental Philosophy* ..... 5
TRST 347 Religion and Ecology* ..... 5
Choose one of the following three courses: ..... 5
ECST 360 Nature Writing and Ecological Ethics
HIST 341 The Pacific Northwest
TRST 373 Creation Spirituality
Area IV. Statistical Methods:
Choose one of the following three courses: ..... 5
ECON 260 Business Statistics
PLSC 382 Research Methods
PSYC 201 Statistics I
Area V. Internship
ECST 495 Internship and Colloquium ..... 5
Area VI. Electives
Choose any one of the following courses or any other courses from Areas I, II, or III above not previously used: ..... 5
ANTH 438 Anthropology of Pacific Northwest Peoples
BIOL 235 Invertebrate Zoology
BIOL 252 Taxonomy of Flowering Plants
ECON 478 Urban/Regional Economics
ECST 491,2,3 Special Topics
ECST 496 Independent Study
ECST 498 Directed Research
ISSC 481 To Feed the World*
PLSC 205 Introduction to American Politics*

PLSC 260 Introduction to Global Politics*<br>PLSC 305 The Policy Process<br>PLSC 309 Local and State Politics<br>PLSC 410 Urban Politics and Public Policy<br>SOCL 306 Population Dynamics


#### Abstract

Please Note: 1. Students are strongly encouraged to seek a minor with their remaining elective credits in close consultation with their adviser. Suggested focused minors may be in biology, communication (journalism/mass communication), economics, political science or public program management, or sociology. A maximum of 15 credits from the major may be used towards a minor. 2. Additional courses meeting the major requirements will be footnoted in the ecological studies section of the Schedule of Classes each quarter. 3. A maximum of 20 credits of the ecological studies major courses may also be used to satisfy the university core requirements; courses so used will be included in the major GPA calculation.


## Minor in Ecological Studies

In order to earn a minor in ecological studies, students must complete 35 credits in ecological studies, including:

ECST 100 Introduction to Geosystems ............................................................... 5
ECST 200 Introduction to Ecological Systems ..................................................... 5
HIST 351 Environmental History ........................................................................ 5
PHIL 309 Environmental Philosophy.................................................................. 5
PLSC 300 Environmental Politics ....................................................................... 5
SOCL 202 Human Ecology and Geography ......................................................... 5
TRST 347 Religion and Ecology ......................................................................... 5
See policy for minors on p. 43.

## Ecological Studies Courses

## ECST 100 Introduction to Geosystems 5

Study of the earth's dynamic systems, including both earth history and analysis of interactive systems operating today. Emphasis on energy flow through the earth's interior, surface and atmosphere. Special topics focus on sustainability and society's interactions with geosystems. Four lecture/discussion hours, three laboratory hours per week.

## ECST 200 Introduction to Ecological Systems

The study of the basic structure and function of natural ecos cycling. Exploration of the earth's major biomes and their importance to human existence. Case studies of human impacts on ecosystems of the Pacific Northwest and the practical application of ecological theory to ecosystem restoration. Four lecture/discussion hours, three laboratory hours per week; one weekend field trip. Prerequisites: ECST 100 and MATH 120 or 118.

## ECST 360 Nature Writing and Ecological Ethics

Exploration of the rich tradition of nature writing from Thoreau to Annie Dillard in which an "ecological conscience" emerges in response to the environmental crises of our time.
ECST 391 Special Topics ..... 1-5
ECST 392 Special Topics ..... 1-5
ECST 480 Interdisciplinary core course ..... 3-5
Title and content vary.
ESST 491 Special Topics ..... 1-5
ECST 492 Special Topics ..... 1-5
ECST 495 Internship ..... 5
ECST 496 Independent Study ..... 1-5
ECST 497 Directed Reading ..... 1-5
ECST 498 Directed Research ..... 1-5

## Economics

Barbara M. Yates, PhD, Chairperson

## Objectives

The courses in economics are designed to acquaint students with the economy in which they live and to relate these courses to all other social sciences. The analytical approach in the economics courses provides the students with the tools of analysis necessary to solve problems and make decisions in the government and private sectors. The major courses cover topics such as efficient allocation of resources, economic fluctuations, income distribution, domestic and international finance, urban problems, labor relations, and economic systems.

Students who prove especially able in economics courses are encouraged to pursue graduate work in preparation for professional status as economists in government, industry, or the academic world. A major in economics, in combination with selected courses in political science, communications, and business, provides an excellent preparation for law school and MBA or MPA programs.

## Degree Offered

Bachelor of Arts in Economics

## Minor Offered

## Economics

See Albers School of Business and Economics section for detailed information on degree program and the minor in economics.

English

Gerald L. Cobb, SJ, PhD, Chair
David J. Leigh, PhD, Director, Creative Writing

## Objectives

Interpreting texts requires the integration of many kinds of knowledge and the development of a wide variety of skills. In addition to what is known from disciplines such as history, psychology, philosophy, and religious studies, the reader needs, for example, imaginative awareness, critical and analytical powers of interpretation and the ability to respond with sensitivity. Responding with texts of one's own requires skills of invention, arrangement, control of tone, and mastery of style.

The English Department offers to its majors a program for learning how to understand, appreciate, and use effectively the rich resources of the English language. Through its service to the core curriculum, the department helps all students to achieve these ends in some way.

The department thus contributes to the university's mission of developing persons through a liberal education, at the same time that it prepares its majors and others for service in many professions; among these are law, social work, business, communications, teaching, politics, and foreign service.

## Degree Offered

Bachelor of Arts

## Majors Offered

English
English/Creative Writing

## Minors Offered

English<br>English/Creative Writing

## Policy for Honors Students

Graduates of the Honors Program who have completed all six of the literature courses in that program may earn an English minor by taking five more credits in English at the 300 or 400 level. They may earn an English major by taking 30 additional credit hours of English at the 300 or 400 level.

Honors Program graduates may earn an English/Creative Writing major by taking 25 credit hours of creative writing, and one five-credit literature course at the 300 or 400 level. They may earn an English/ Creative Writing minor by taking 15 credit hours of creative writing at the 300 or 400 level.

## Teacher Education

The teacher preparation program is a graduate-level program only. Students interested in teaching should contact the Master in Teaching program at (206) 296-5759 to be assigned an adviser to ensure that they meet state requirements for an academic program as well as the specific requirements for MIT admission.

## Second Endorsement for Teaching English

According to the Washington Administrative Code, teachers must meet minimum standards in a subject area in order to be qualified for a second endorsement in that subject area.

The standards for English include 24 quarter hours in the following subject areas: American literature, English literature, comparative literature, linguistics or structure of language, and writing/composition.

## The Writing Center

The Writing Center, with its own director and student consultants, offers writing assistance to all students. The Writing Center is managed by the English Department.

## Creative Writing Program

The program's goal is to develop the writing skills and encourage the creative talents of undergraduate students. The curriculum for the major and minor includes both traditional literature and beginning and advanced creative writing courses in fiction, poetry, nonfiction, expressive writing, writing for children, and script writing. All writing courses include a substantial reading requirement, but with the emphasis on craft.

The faculty includes regular members of the English Department as well as writers-inresidence from the Northwest.

The broader learning environment of the creative writing program includes occasional weekend workshops, internships, a public Writers Reading Series, and study-abroad opportunities.

A student interested in the major or minor in English/Creative Writing should speak with the director.

Please Note: A student may not earn a major, or major and minor, in both English and English/ Creative Writing.

## Bachelor of Arts Major in English

In order to earn the bachelor of arts degree with a major in English, students must complete a minimum of 180 quarter credits, with a cumulative grade point average of 2.0 and a major/program grade point average of 2.5 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST 120 Origins of Western Civilization ..... 5
MATH $\quad 107$ or 110 or above ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary Course ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Foreign Language $115,125,135$, or equivalent ..... 15
Please Note: All students with majors in the College of Arts and Sciences must demonstrate competency in a foreign language through the 135 level. This competency is ordinarily achieved by successful completion of the three-course sequence: 115,125 , and 135 . Because these courses are a college requirement, no course in the sequence may be taken on a pass/ fail, correspondence, or audit basis. Placement into other than the beginning course of the sequence is achieved by acceptable performance on the Foreign Language Competency Examination. See the Foreign Language Department for details on the examinations.
Choose one of the following two courses: ..... 5
HIST 121 Studies in Modern Civilization
HIST 231 Survey of the United States
III. Major Requirements
Fifty-five credits in English, including:
ENGL 252 Survey of British Literature I ..... 5
ENGL 253 Survey of British Literature II ..... 5
ENGL 254 Survey of American Literature ..... 5
ENGL 332 Texts in Context ..... 5
ENGL 333 Studies in Intertextuality ..... 5
Choose one directed elective from each of three areas:
Biblical/Classical or Medieval Literature ..... 5
International or U.S. Intercultural Literature ..... 5
20th Century British or American Literature ..... 5
English Electives (300-level or above) ..... 15
Please Note: 1. See course codes listed below for courses that satisfy the directed elective requirements. 2 . A required course may not be used to satisfy two requirements simultaneously. Moreover, requirements of the core (for example, ENGL 110, ENGL 120, interdisciplinary courses and senior synthesis) do not satisfy requirements for the English major.

## Bachelor of Arts Major in English/Creative Writing

In order to earn the bachelor of arts degree with a major in English/Creative Writing, students must complete a minimum of 180 quarter credits, with a cumulative grade point average of 2.0 and a major/program grade point average of 2.5 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST 120 Origins of Western Civilization ..... 5
MATH $\quad 107$ or 110 or above ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary Course ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Foreign Language $115,125,135$, or equivalent ..... 15
Please Note: All students with majors in the College of Arts and Sciences must demonstrate competency in a foreign language through the 135 level. This competency is ordinarily achieved by successful completion of the three-course sequence: 115,125 , and 135 . Because these courses are a college requirement, no course in the sequence may be taken on a pass/ fail, correspondence, or audit basis. Placement into other than the beginning course of the sequence is achieved by acceptable performance on the Foreign Language Competency Examination. See the Foreign Language Department for details on the examinations.
Choose one of the following two courses: ..... 5
HIST 121 Studies in Modern CivilizationHIST 231 Survey of the United States
III. Major Requirements
Fifty-five credits in English, including:
Choose two of the following three courses: ..... 10
ENGL 252 Survey of British Literature I
ENGL 253 Survey of British Literature II
ENGL 254 Survey of American Literature
Choose one of the following two courses: ..... 5
ENGL 332 Texts in Context
ENGL 333 Studies in Intertextuality
Choose one literature elective from either of the following two areas (300-400 level): ..... 5
Biblical/Classical or Medieval Literature
International or U.S. Intercultural Literature
Choose two English literature electives (300-400 level) ..... 10
Choose creative writing courses in at least three genres (300-400 level) ..... 25
Fiction (ENGL 305, ENGL 318, ENGL 409)
Poetry (ENGL 316, ENGL 406)
Non-fiction (ENGL 304, ENGL 414)
Drama/Film (ENGL 451, DRMA 404)
Please Note: Courses satisfying requirements for university core do not also satisfy requirements for the English/Creative Writing major.

## Minor in English

In order to earn a minor in English, students must complete 35 credits in English, including:
ENGL 110 Freshman English ..... 5
ENGL 120 Masterpieces of Literature ..... 5
Choose two of the following three courses ..... 10
ENGL 252 Survey of British Literature I
ENGL 253 Survey of British Literature II
ENGL 254 Survey of American Literature
ENGL Electives (300-400-level) ..... 15Please Note: Students who have completed the six literature courses in the honors programmay complete the minor with one additional upper division English course of five credits. Seepolicy for minors on $\mathrm{p}, 43$.
Minor in English/Creative Writing
In order to earn a minor in English/Creative Writing, students must complete 35 credits inEnglish, including:
ENGL 110 Freshman English ..... 5
ENGL 120 Masterpieces of Literature ..... 5
Choose two of the following three courses ..... 10
ENGL 252 Survey of British Literature I
ENGL 253 Survey of British Literature II
ENGL 254 Survey of American Literature
Creative Writing electives in at least two genres
(300-400-level) ..... 15

## English Courses

Courses that fulfill requirements for the English major, the core curriculum, and the second endorsement for teaching English are designated by the following code:

A American
BC Biblical/Classical and Medieval
Co Core
Int International or U.S. Intercultural
L Language
T 20th Century British and American
P Pedagogy
W Writing

## ENGL 101 Basic Writing 5

Instruction and practice in basic writing skills with emphasis on generating, organizing, and developing ideas in paragraphs and short essays. Emphasis, on control of sentence structure, punctuation, and standard usage. Through focus on the writing process, the course aims to increase students' self-confidence as writers. Counts toward graduation, but does not satisfy core writing requirements. W

## ENGL 110 Freshman English 5

Focuses on reading and writing as creative, interpretive, and argumentative acts. Seeks to develop the rhetorical skills of invention, arrangement, style and correctness. W and Co
ENGL 120 Masterpieces of Literafure 5
A study of narrative, drama, and poetry, primarily of American and British authors. The student will learn to appreciate how these literary forms embody metaphoric, poetic, and mythic ways of knowing; through writing assignments, students also learn how to respond to literature. Co

ENGL 191 Special Topics 1 to 5
ENGL 192 Special Topics 1 to 5
ENGL 193 Special Topics 1 to 5
ENGL 201 Advanced Grammar and Vocabulary 5
A study of traditional English grammar as a means of addressing issues of usage, structural correctness of the English sentence, clarity and rhetorical effect, and a study of the principles of word formation, usage, and effective word choice. L

ENGL 202
Advanced Grammar
3
A study of traditional English grammar as a means of addressing issues of usage, structural correctness of the English sentence, clarity, and rhetorical effect. May be taken in conjunction with ENGL 203. L

ENGL 203 Vocabulary 2

A study of the principles of word formation, usage, and effective word choice. May be taken in conjunction with ENGL 202. L

## ENGL 252 Survey of British Literature I <br> 5

A study of major British writers from the Medieval Period to the Eighteenth Century. Required of English majors. Prerequisite: ENGL 110. Offered twice a year.

## ENGL 253 Survey of British Literature II

A study of major British writers from the Eighteenth Century to the Modern Period. Required of English majors. Prerequisiste: ENGL 110. Offered twice a year.

ENGL 254 Survey of American Literature 5
A study of American authors from the Colonial through the Modern Period. Required of English majors. Prerequisite: ENGL 110. Offered twice a year.
ENGL 291 Special Topics 1 to 5
ENGL 292 Special Topics 1 to 5
ENGL 293 Special Topics 1 to 5
ENGL 304 Expressive Writing 5
Strategies and techniques for writing the personal essay: autobiography, reflection, and other kinds of personal narrative. Special attention to development of prose style and authentic voice. Prerequisite: ENGL 110 and junior standing. Permission of the instructor is required. (Formerly ENGL 405) W

Students will learn the theory, techniques, and practice of writing short stories by using their imaginations actively in order to present life and characters through fiction. W

## ENGL 308 Advanced Writing: Argument and Persuasion

Argumentative writing for a public forum on issues of policy or other socially significant issues. Study of the rhetoric of argumentation with attention to the use of evidence, the internal logic of argument, and the appeal to an audience's sympathies. Development of a flexible prose style that can be adapted to a variety of rhetorical situations and audiences. Prerequisite: ENGL 110 and junior standing. W

## ENGL 316 Writing Poetry 5

Study and practice in the modes and techniques of poetic composition. W

## ENGL 317 Mythology

 5The study of the myths of ancient Greece as well as other cultures in order to understand their significance and meaning in the original cultural context and their enduring, archetypal implications. BC

## ENGL 318 Writing for Children 5

Practice and craft-focused study of literature for children, emphasizing special challenges and responsibilities of the genre. W

## ENGL 319 Children's Literature 5

Historical contexts and interpretations of folk and fairy tales, as well as the study of traditional and contemporary modes of narrative for young readers. The course includes interpretive and creative writing assignments.

## ENGL 320 The Bible as Literature

 5A study of the Jewish and Christian Scriptures with emphasis on their status as texts that engage and shape a reader's response. Possible works to be studied include: Genesis, Exodus, 1 and 2 Samuel, Job, Isaiah, one of the Gospels, Romans, and Revelation. BC

## ENGL 323 The Literafure of Greece and Rome 5

A study of the literature of the classical world, with emphasis on Greece and Rome, depending on the instructor. Texts may include such works as The Odyssey, The Oresteia, Oedipus Rex, Antigone, The Trojan Women, and Lysistrata for the Greeks, and The Aeneid, selected plays by Plautus, the essays of Cicero, and the satires of Juvenal for the Romans. BC

ENGL 326 Dante's Divine Comedy 5 A study of "The Divine Comedy: Inferno, Purgatorio, and Paradiso," with emphasis on both its peculiarly medieval synthesis of thought and on its contemporary appeal as a classic. BC

## ENGL 328 <br> Chaucer

A study of Chaucer's Canterbury Tales and other works, such as his short poems or the Troilus. The emphasis is on Chaucer's craft as a storyteller, his creative use of sources, and the range of his wit. BC

## ENGL 330 Shakespeare

A study of selected plays and sonnets of Shakespeare with special attention to his craft as a playwright and to contemporary approaches of criticism.

## ENGL 331 Shakespeare in Performance 5

A study of Shakespeare's plays with emphasis on versions available both on film and in the theatre, especially those presented in Seattle and at the Ashland Festival. Emphasis, too, on student performance of the plays. Students will have the option of attending plays at Ashland or of doing an alternative project.

## ENGL 332 Texts in Context 5

Examines texts in the context of a range of historical and cultural situations that enable students to uncover ways in which both writer and reader are situated in time. In preparation for the documented inquiry paper, the major writing project in the course, students will also develop basic library skills and the skill of reading the critical essay. (formerly ENGL 256)

## ENGL 333 Studies in Intertextuality

5
By examining the power of influence and the conventions of allusion, genre and archetype, Studies in Intertextuality explores how texts are shaped by the network of other texts. Writing assignments include a formal paper of intertextual analysis and an imaginative transformation of a literary text. (formerly ENGL 257)

## ENGL 335 17th Century Literature: The Rhetoric and Poetics of Modern Revolutions

The 17th century, a turbulent time in English history, witnessed cultural shifts in politics, religion, economics, and education. This course will study how writers were shaped by their culture and how they shaped it in turn.

## ENGL 338 Restoration and 18th Century Literature 5

 A study of the major British and European poets, satirists, and novelists between 1660 and 1800. Readings will be selected from such authors as Dryden, Swift, Pope, Johnson, Montagu, Fielding, DeFoe, Burney, Voltaire and Moliere.
## ENGL 340 British Romanticism 5

An analysis and discussion of the major works of the Romantic period with emphasis on the poetry of Wordsworth, Coleridge, Byron, Shelley, and Keats.

## ENGL 343 The 19th Cenfury English Novel

A survey of the novel in a most flourishing period from Austen to Hardy. The works studied may include such authors as Dickens, Thackeray, the Brontes, Eliot, and Trollope.

## ENGL 346 Literary Realism

5Readings in the Realistic movement. Selections will vary but may include such authors as Twain, James, Flaubert, Tolstoy, Balzac, and Zola.

## ENGL 349 Late 19th Century Literature 5

A study of 19 th century literature in the context of its times. The focus is primarily on British writers such as Mill, Huxley, Arnold, Newman, Tennyson, and Browning, but, by way of comparison, other American or Continental writers may be introduced.

## ENGL 353 Modern Drama 5

An introduction to dramatists from 1890 to approximately 1950, whose works expressed and challenged the spirit of their age. The playwrights to be studied might include lbsen, Shaw, Wilde, Chekhov, 0'Neill, Pirandello, and Williams. T
ENGL 358 Modernism in Art and Literature 5
A study of the movement of Modernism as expressed in Western art and literature from 1880 to approximately 1950. T

## ENGL 360 World Literafure 5

An introduction to the important questions, concepts and methods of world literature, including the study of genres, themes, modes and symbols. Transcending the boundaries of national literatures, the course explores the relationship of literature to art, philosophy, history, and religion. The problem of literature in translation also receives attention. INT

## ENGL 361 Literature of India 5

Primary focus is the evolution of English language writing in South Asia with an emphasis on the literature of India. Course will also include writers of Indian origin who have emigrated to the West. Readings might include such writers as Rabindranath Tagore, R.K. Narayan, Raja Rao, Anita Desai, Nayantara Sahgal, Salman Rushdie. INT

## ENGL 362 African Literafure

Twentieth century English language, sub-Saharan African narratives are the focus of this course, which might also include some French and Arabic narratives in translation. Discussion might include writers such as Wole Soyinka, Chinua Achebe, Ngugi wa Thiongo, Mariama Ba, Bessie Head, Tsitsi Dangarembga, Ben Okri, Dennis Brutus. INT

## ENGL 364 Post-Colonial Literafure <br> 5

The impact of the British Empire on the literature and culture of its colonies in Asia, Africa, Australia, and the Caribbean will be studied. Readings might include the theories of Frantz Fanon, Edward Said, Gayatri Spivak, Chinweizu and Ngugi, in addition to narratives by Chinua Achebe, Salman Rushdie, Buchi Emecheta, Jean Rhys, V.S. Naipaul. INT

## ENGL 369 Latin American Literature

Studies in the poetry and prose of Spanish-speaking Latin American countries as that literature expresses the history and native genius of Latin American culture, especially in the context of the interrelation between colonizers and colonized. Writers to be studied include such authors as Borges, Vargas Llosa, Garcia Marquez, Neruda, and Fuentes. INT

## ENGL 375 American Novelists 5

A study of the American contribution to the novel up to approximately 1950, with emphasis on the cultural diversity of the writers. Depending on the instructor, novelists may include Melville, Hawthorne, Henry James, Cather, Hemingway, Faulkner, Ellison, Baldwin, Oates, and others. A

## ENGL 377 American Poets 5

A study of the American spirit as sensed through the words of its poets. Special emphasis on Americans' problematic response to nature and to the nation's history from colonial times to the present day. A
ENGL 379 Narrative Experiments in the Anglo-American Novel 5 A study of 20th century experimental novels by British and American writers such as Joyce, Wolfe, Faulkner, Stein, and others. T and A

A survey of the principal authors and currents of thought from 1900 to the present. The course will include novels, poetry, and essays exemplifying such movements as realism, imagism, existentialism, southern agrarianism, and post modern experimentalism. T and A

## ENGL 388 Film and Literature 5

An introductory study of the basic principles and techniques of film art, with emphasis on the complementary contributions of the screenwriter, the director, the cinematographer, and the editor.

## ENGL 390 Tutoring Writing: Theory and Practice 5

Practical training for tutors. Study of theories of composition and the role of tutors within the writing process. Strategies for diagnosing writing problems, mastering effective conferencing skills to help writers reduce anxiety, generate ideas, solve organizational problems, and develop a fluent, error-free prose style. P
ENGL 391 Special Topics 1 to 5
ENGL 392 Special Topics 1 to 5
ENGL 393 Special Topics 1 to 5
ENGL 400 History of the English Language 5
A study of the historical development of English, also serving as an introduction to linguistics: phonology, morphology, syntax and lexicon in their historical and literary contexts. L

## ENGL 406 Advanced Poetry Writing 5

Emphasis on craft, word usage, revision, and study of literary models of poetry, with students presenting their own work for group response. Prerequisite: ENGL 316. W
ENGL 409 Advanced Fiction Writing 5
Intensive practice, with emphasis on revision, and study of the craft of fiction writing. Includes a craft-focused study of literary models. Prerequisite: ENGL 305. W

## ENGL 414 Writing Non-Fiction 5

Introduction to non-fiction genres which use fictional techniques, such as the personal essay, biography, autobiography, travel writing, documentaries, and social commentary. Includes study of non-fiction models. W

## ENGL 418 Contemporary Literature 5

A study of contemporary writers and their challenging experiments with prose fiction. Authors such as Hawkes, Lessing, Kundera, Gordimer, and Calvino will be studied. T
ENGL 423 Irish Literature 5
A study of major figures of the Irish Renaissance and their cultural background in the late 19th century; writers such as Yeats, Joyce, 0'Casey, and Synge will be studied. T
ENGL 430 Japanese Drama 5
A study of the development of the major Japanese theatrical forms, together with a comparative examination of Greek and Elizabethan tragedy. INT

ENGL 435 Short Story Literature 5
A study of the elements and historical development of the short story in its variety of types and emphases.

## ENGL $440 \quad$ Women and the Creative Imagination 5

Through theoretical texts, literature, art, and films, this course explores the creative imagination of women as well as the perceptions by which women have been defined and define themselves. Recommended elective for the Women's Studies Minor.

## ENGL 441 International Women's Writing

This course is a study of narratives by women from Asia and Africa. Discussion will explore the relationship of the writing with social and political aspects of women's lives in different nations. Some of the writers to be discussed might include: Nawal El Saadawi, Bessie Head, Buchi Emecheta, Nadine Gordimer, Anita Desai, Mahadevi Varma, Bapsi Sidhwa. INT
ENGL 451 Writing Scripts
5
Practice and study of script writing for film and television, emphasizing the genre formulas and the special challenges of collaborative media. W

## ENGL 480 Interdisciplinary Course

3 to 5
The exploration of contemporary issues and problems by means of several disciplines, including language and literature. Topics will include language and propaganda, love and marriage, and literature and society. Topics for each year are available through the English Department. Co

## ENGL 485 Literary Theory 5

Depending on the instructor, the course examines the texts of historical and contemporary critical theory and their influence on the writing and reading of literature. Other issues, such as the nature of art, beauty, and literature or the relationship between a society and its literature may also be discussed. Recommended especially for students preparing for advanced study. (formerly EN 490)

## ENGL 487 Senior Synthesis 5

Through the study of a selected theme, the learning of a liberal education, especially through literature, is applied to questions which prepare students for leadership and professional service. Themes such as "points of transition" or "freedom and community" will be offered in different years. Core option, phase three. Open to all qualified seniors. Co (formerly EN 495)

| ENGL 491 | Special Topics | 1 to 5 |
| :--- | :--- | :--- |
| ENGL 492 | Special Topics | 1 to 5 |
| ENGL 493 | Special Topics | 1 to 5 |
| ENGL 495 | Internship | 1 to 5 |

Supervised service in which students apply and develop their skills as English majors working for a business or non-profit institution or agency. Open only to English majors with the permission of the director of interns. Graded CR/F. Prerequisites: junior or senior standing and 20 credits of upper-level English. (formerly EN 475)
ENGL 496
Independent Study
1 to 5
ENGL 497
Directed Reading
1 to 5
ENGL 498 Directed Research 1 to 5

## Fine Arts

Carol Wolfe Clay, MFA, Chair

## Objectives

The strength of the Fine Arts Department is a curriculum that offers foundational skills in three of the fine arts and is enhanced through a broad, liberal education in the Jesuit tradition. The sequence of each program, including a variety of electives, stimulates and enriches the development of the Fine Arts student.

The curricula of Fine Arts focus on the following areas:
Drama - Performance, Production, History
Visual Art - History and Studio: design, drawing, painting, sculpture, printmaking Music - Theory, History, Applied, Performance

The Fine Arts program develops the student artist in practical ways, providing opportunities to:

- study with professional artists in the visual arts, theatre, and music through the guest artist program,
- study photography through an affiliation with the Photographic Center Northwest,
- explore Seattle's rich art community through theatre, opera, symphony, art gallery, and museum events,
- intern with a variety of Seattle arts organizations,
- perform, design and exhibit in Seattle University drama productions, choir concerts, and gallery shows,
- participate in colloquia on a given fine arts topic or event,
- exhibit or perform during spring quarter of the senior year,
- study art abroad.

The future for a fine arts graduate might include B.F.A. or M.F.A. programs in the arts, graduate teaching programs, or the beginning of a professional career in the arts.

## Degree Offered

Bachelor of Arts

## Majors Offered

Fine Arts
Drama
Visual Art

## Minors Offered

Studio Art
Art History
Theatre Performance
Theatre Production
Music

## General Program Requirements

All majors in the fine arts department must complete at least 20 credits in the major at Seattle University.

## Non-Major Students

As elective choices, most courses are open to students in other fields. Many complement the work in other majors (e.g., art history of English, history, philosophy, or religious studies) and the department cordially welcomes all members of the school community. Observe prerequisites where noted.

Courses open to auditors include FINR 120, ART 211, 212, 315, 316, 481; DRMA 100, 110, 211, 212; MUSC 211, 212. All other courses in the fine arts department are to be taken for credit.

## Teacher Education

The teacher preparation program is a graduate-level program only. Students interested in teaching should contact the Master in Teaching program at (206) 296-5759 to be assigned an adviser to ensure that they meet state requirements for an academic major as well as the specific requirements for admission to the MIT program.

## Bachelor of Arts Major in Fine Arts

The fine arts major builds on the cross-disciplinary nature of the Seattle University Fine Arts Department by allowing students to choose an area of emphasis within the arts (ART, DRMA, or MUSC) while they also integrate courses from other art forms. One student interested in musical performance might choose to bridge theatre and music, while another student might combine music and visual art courses to round out an emphasis in production theatre. Individual programs are designed in consultation with a fine arts faculty adviser. In order to earn the bachelor of arts with a major in fine arts, students must complete a minimum of 180 quarter credits, with a cumulative grade point average of 2.0 and a major/ program grade point average of 2.5 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ............................................................................... 5
PHIL 110 Introduction to Philosophy and Critical Thinking .............................. 5
HIST 120 Origins of Western Civilization ........................................................... 5
ENGL 120 Masterpieces of Literature ................................................................. 5
MATH 107 or 110 or above .......................................................................... 5
Lab Science ........................................................................................................ 5
PHIL 220 Philosophy of the Human Person ....................................................... 5
Social Science I ........................................................................................................ 5
Social Science II (different discipline from Social Science I) .................................. 5
Theology and Religious Studies Phase II (200-299) ................................................. 5
Ethics (upper division) ........................................................................................... 5
Theology and Religious Studies Phase III (300-399) ............................................... 5
Interdisciplinary .................................................................................................. 3-5
Senior Synthesis (ART 490 or DRMA 490 or FINR 490 required) ............................. 3
See detailed core curriculum information in this bulletin.

## II. College of Arts and Sciences Requirements

Foreign Language $115,125,135$, or equivalent 15

Please Note: All students with a major in the College of Arts and Sciences must demonstrate competency in a foreign language through the 135 level. This competency is ordinarily
achieved by successful completion of the three-course sequence: 115,125 , and 135 . Because these courses are a college requirement, no course in the sequence may be taken on a pass/ fail, correspondence, or audit basis. Placement into other than the beginning course of the sequence is achieved by acceptable performance on the Foreign Language Competency Examination. See the Foreign Language Department for details on the examinations.

Choose one of the following two courses: ........................................................................ 5
HIST 121 Studies in Modern Civilization
HIST 231 Survey of the United States

## III. Major Requirements

Sixty credits in fine arts, including 30-32 credits in an area of emphasis - DRMA, MUSC, or ART (includes Art/Visual or Art/Photography):

## Drama Emphasis requirements:

DRMA 211 Theatre History and Literature I ..... 5
DRMA 212 Theatre History and Literature II ..... 5
DRMA 250 Acting I ..... 5
DRMA 260 Design and Technical Theatre I ..... 5
DRMA 350 Acting II ..... 5
DRMA 360 Design and Technical Theatre II ..... 5
Music Emphasis requirements:
MUSC 200 Comprehensive Musicianship I ..... 5
MUSC 211 Music History Survey I. ..... 5
MUSC 212 Music History Survey II ..... 5
MUSC 300 Comprehensive Musicianship II ..... 5
MUSC Music Lessons ..... 5
MUSC Music Ensemble ..... 5
Art/Visual Emphasis requirements:
ART 100 Design and Color ..... 5
ART 120 Drawing I ..... 5
ART 316 20th Century Art ..... 5
Choose one of the following two courses: ..... 5
ART 211 Survey of Western Art I
ART 212 Survey of Western Art II
Choose two of the following courses: ..... 10
ART 220 Drawing II
ART 240 Painting I
ART 250 Sculpture I
ART 330 Relief Printmaking or ART 331 Monotype Printmaking
Art/Photography Emphasis requirements:
ART 100 Design and Color ..... 5
ART 160 Black and White Photography I ..... 5
ART 260 Color Photography I ..... 3
ART 265 Black and White Photography II ..... 3
ART 316 20th Century Art ..... 5
ART 317 History of Photography ..... 5
ART 360 Black and White Photography III ..... 3
ART 365 Light Control for Photography ..... 3

In addition to the emphasis courses selected, (DRMA, MUSC, ART) choose the remaining credits, for a total of 60 , in any combination. In consultation with the student's adviser, 10 of these credtis must be from a discipline other than the area of emphasis (DRMA, MUSC, ART) and 10 must be taken at the $300-400$ level

Total 28-30
Fine Arts majors must also choose the required senior synthesis course in consultation with their faculty adviser.

## Bachelor of Arts Major in Visual Art


#### Abstract

In order to earn the bachelor of arts with a major in visual art, students must complete a minimum of 180 quarter credits, with a cumulative grade point average of 2.0 and a major/ program grade point average of 2.5 , including the following:


## I. Core Curriculum Requirements

ENGL 110 Freshman English ................................................................................ 5
PHIL 110 Introduction to Philosophy and Critical Thinking. ............................. 5
HIST 120 Origins of Western Civilization ........................................................... 5
ENGL 120 Masterpieces of Literature .................................................................. 5
MATH 107 or 110 or above .......................................................................... 5
Lab Science ....................................................................................................... 5
PHIL 220 Philosophy of the Human Person ...................................................... 5
Social Science I. ..................................................................................................... 5
Social Science II (different discipline from Social Science I) .................................. 5
Theology and Religious Studies Phase II (200-299) ................................................. 5
Ethics (upper division) ............................................................................................ 5
Theology and Religious Studies Phase III (300-399) ............................................... 5
Interdisciplinary. ................................................................................................... 3-5
Senior Synthesis (ART 490 required) ....................................................................... 3
See detailed core curriculum information in this bulletin.

## II. College of Arts and Sciences Requirements <br> Foreign Language 115, 125, 135, or equivalent 15

Please Note: All students with a major in the College of Arts and Sciences must demonstrate competency in a foreign language through the 135 level. This competency is ordinarily achieved by successful completion of the three-course sequence: 115,125 , and 135 . Because these courses are a college requirement, no course in the sequence may be taken on a pass/ fail, correspondence, or audit basis. Placement into other than the beginning course of the sequence is achieved by acceptable performance on the Foreign Language Competency Examination. See the Foreign Language Department for details on the examinations.
Choose one of the following two courses: ..................................................................... 5
HIST 121 Studies in Modern Civilization
HIST 231 Survey of the United States

## III. Major Requirements

Fifty-five credits in visual art, including:
ART 100 Design and Color ............................................................................... 5
ART 120 Drawing I........................................................................................... 5
ART 211 Survey of Western Art I ..... 5
ART 212 Survey of Western Art II ..... 5
ART 220 Drawing II ..... 5
ART 240 Painting I ..... 5
ART 250 Sculpture I ..... 5
ART 316 20th Century Art ..... 5
ART Electives at the 300-400 level ..... 15
Visual art majors must also take ART 490, Senior Thesis and Exhibit which satisfies the core senior synthesis requirement.Please Note: Faculty will review the student portfolio upon completion of sophomore year,or equivalent, to determine eligibility to continue in the visual art major.
Bachelor of Arts
Major in Drama
In order to earn the bachelor of arts with a major in drama, students must complete a minimum of 180 quarter credits, with a cumulative grade point average of 2.0 and a major/ program grade point average of 2.5 , including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST 120 Origins of Western Civilization ..... 5
ENGL 120 Masterpieces of Literature ..... 5
MATH $\quad 107$ or 110 or above ..... 5
Lab Science ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis (DRMA 490 required) ..... 3
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Foreign Language $115,125,135$, or equivalent ..... 15Please Note: All students with a major in the College of Arts and Sciences must demonstratecompetency in a foreign language through the 135 level. This competency is ordinarilyachieved by successful completion of the three-course sequence: 115,125 , and 135 . Becausethese courses are a college requirement, no course in the sequence may be taken on a pass/fail, correspondence, or audit basis. Placement into other than the beginning course of thesequence is achieved by acceptable performance on the Foreign Language CompetencyExamination. See the Foreign Language Department for details on the examinations.
Choose one of the following two courses: ..... 5
HIST 121 Studies in Modern CivilizationHIST 231 Survey of the United States
III. Major RequirementsFifty-five credits in drama, including:
DRMA 100 Voice and Diction ..... 3
DRMA 110 Stage Mechanics ..... 2
DRMA 211 Theatre History and Literature I ..... 5
DRMA 212 Theatre History and Literature II ..... 5
DRMA 250 Acting I ..... 5
DRMA 260 Design and Technical Theatre I ..... 5
DRMA 350 Acting II ..... 5
DRMA 360 Design and Technical Theatre II ..... 5
DRMA 415 Auditioning ..... 2
DRMA 420 Directing ..... 3
DRMA Electives at the 300-400 level ..... 15
Please Note: Requirements for graduation include participation in selected performance andproduction aspects of at least three Seattle University productions.
Minor in Studio Art
In order to earn a minor in studio art, students must complete 30 credits in visual art,including:
ART 100 Design and Color ..... 5
ART 120 Drawing I ..... 5
ART 316 20th Century Art ..... 5
ART Electives in consultation with an art adviser ..... 15
Fine arts and visual arts majors may not earn a minor in studio art.
See policy for minors on p. 43.
Minor in Art History
In order to earn a minor in art history, students must complete 30 credits in visual art, including:
ART 211 Survey of Western Art I ..... 5
ART 212 Survey of Western Art II ..... 5
ART 316 20th Century Art ..... 5
ART Independent study/methods ..... 5
ART Electives in consultation with an art adviser ..... 10
Fine arts and visual arts majors may not earn a minor in art history.
See policy for minors on p. 43.
Minor in Theatre Performance
In order to earn a minor in theatre performance, students must complete 30 credits in drama, including:
DRMA 100 Voice and Diction ..... 3
DRMA 250 Acting I ..... 5
DRMA 350 Acting II ..... 5
Choose one of the following two courses: ..... 5
DRMA 211 Theatre History I
DRMA 212 Theatre History II
DRMA Electives in consultation with a drama adviser ..... 12

Fine arts and drama majors may not earn a minor in theatre performance. See policy for minors on p. 43.

## Minor in Theatre Production



Fine arts and drama majors may not earn a minor in theatre production.
See policy for minors on p. 43.

## Minor in Music

In order to earn a minor in music, students must complete 30 credits in music, including:
MUSC 200 Comprehensive Musicianship I......................................................... 5
MUSC 211 Music History Survey I ........................................................................ 5
MUSC 212 Music History Survey II ...................................................................... 5
MUSC 300 Comprehensive Musicianship II ......................................................... 5
Music ensemble ...................................................................................................... 5
Music lessons ....................................................................................................... 5
Fine arts majors may not earn a minor in music.
See policy for minors on p. 43.

## Fine Arts Courses

FINR 120 Experiencing the Arts 5
An exploration of the arts by experiencing the creative process, understanding elements of the artist's composition, and learning criteria of aesthetic judgment. The irreplaceable value of art in human culture will be studied and celebrated by attending musical, dramatic, and/or visual art events both locally and on campus. Faculty teach with an emphasis on one of the arts with interdisciplinary connections made to the other fine arts. Offered every quarter. Fulfills fine arts core requirement.
FINR 391 Special Topics 1-5
FINR 392 Special Topics 1-5
FINR 393 Special Topics 1-5
FINR 480 Interdisciplinary Core 3-5
FINR 490 Senior Synthesis 3-5
FINR 491 Special Topics 1-5
FINR 492 Special Topics 1-5
FINR 493 Special Topics 1-5

## FINR 496 Independent Study 1-5

FINR 497 Directed Reading 1-5

FINR 498 Directed Research 1-5

## Visual Art Courses

Eligibility to remain in courses for which students are registered will be based on the criteria listed within each course description, and will be determined by the instructor after the first day of class.
All courses taken at the Photograhic Center Northwest must have a Seattle University ART designation to count for credit at Seattle University.
ART 100
Design and Color
5
Introduction to elements and principles of two-dimensional design and color theory as a foundation for visual art. Execution of specific design projects, individual and group critiques, creative thinking exercises to increase visual awareness, reflective writing, and attendance at local galleries and museums. Fulfills Fine Arts core requirement.

## ART 120 <br> Drawing I <br> 5

Introduction to the principles of drawing through observation. Investigation of proportion, modeling, still life, and perspective with various drawing media. Introduction to aesthetic literacy, critical thinking, reflective writing, and attendance at local galleries and museums. Fulfills Fine Arts core requirement.
ART 160 Black and White Photography I 5
An introduction to black and white photography designed to teach camera operation, exposure techniques, film development, printing, and the elements of composition. Critical and creative thinking will be demonstrated through the exercise of aesthetic judgment and reflective writing. Lectures, demonstrations, critiques and discussions, and weekly slide presentations on noted photographers. Weekly reading assignments designed around the technical information presented in class. Students must have their own adjustable 35 mm camera. No prerequisites. Fulfills Fine Arts core requirement.

## ART 211 Survey of Western Art I: <br> Prehistoric through Medieval

Broad historical overview of the architecture, sculpture, painting, and decorative arts of the cultures of the Ancient Near East and the West, ending circa 1400. Attention will be given to developing skills of visual literacy; examining art historical methodologies; and exploring connections with history, philosophy, anthropology, theology, and other art forms. Experiential aspect of the course will include visits to local galleries and museums. (formerly ART 311.) Fulfills Fine Arts core requirement.

## ART 212 Survey of Western Art II: <br> Renaissance through Modern <br> 5

Broad historical overview of the architecture, sculpture, painting, and decorative arts of the cultures of Europe and the Americas, beginning circa 1400 and continuing to the present. Attention will be given to developing skills of visual literacy; examining art historical methodologies; and exploring connections with history, philosophy, anthropology, theology, and other art forms. Experiential aspect of the course will include visits to local galleries and museums. (formerly ART 312.) Fulfills Fine Arts core requirement.

## ART 220

Drawing II
5
Application of drawing principles to the study of the human figure, landscape, and architecture. Investigation of proportion, advanced perspective and composition with various drawing media. Prerequisite: ART 120, or permission of instructor.

## ART 240 Painting I <br> 5

Introduction to the principles and processes of painting. Investigation into media manipulation, color, and composition with various subjects. Prerequisite: ART 100 , ART 120, or permission of instructor.

## ART 250 <br> Sculpture I <br> 5

The world art/craft tradition of ceramic sculpture with an emphasis placed on clay hand building skills: pinch, coil, slab construction. Execution of specifically assigned projects and exploration of glazing, decorating, and firing.

## ART 260 Color Photography I 3

A beginning photography course designed to teach color printing and theory. Elements of design, composition and narrative will be discussed. Lectures, demonstrations, critiques, discussions, and slide presentations on the work of noted photographers. Weekly assignments on technical information, issues of compostion, and image content. Students must have their own adjustable 35 mm camera. Prerequisites: ART 160 , or permission of instructor.

## ART 265 Black and White Photography II 3

An intermediate course in black and white photography designed to teach advanced technical skills in film exposure and development, printing, composition, and narrative concepts. Lectures, demonstrations, critiques, discussions, and slide presentations. Weekly assignments on technical and conceptual information. Students must have their own adjustable 35 mm camera. Prerequisites: ART 160 , or permission of instructor.

ART 291

Special Topics
1-5

ART 292 Special Topics 1-5
ART 293 Special Topics 1-5
ART 314 Art of the Florentine Renaissance 5
First-hand examination of the art and ideas of Renaissance Florence, beginning in the late 14th century and ending in the mid 16th century. Attention devoted to in-depth visual analysis, as well as to the political, religious, and literary contexts in which these works were created. Readings from primary sources, and the vast scholarly literature on the Renaissance. Format: preparation in Seattle, guided 3-week immersion in Florence during summer, reflection and writing in Seattle. No prerequisites, although ART 212 Survey of Western Art II or equivalent strongly advised.
ART 315 Nineteenth-Century Art 5
Examination of European and American art from Neoclassicism through Post-Impressionism (1775-1905). Highlights connections with literature, history, and music. Readings emphasize new methodologies. No prerequisites, although ART 212 Survey of Western Art II or equivalent strongly advised.

ART 316 20th Century Art 5
Survey of visual art made during the last 100 years. Discussions grounded in the context of sweeping changes that characterize twentieth-century history, philosophy, and cultural production. Focus on painting and sculpture; film, architecture, and new media also included. No prerequisites, although ART 212 Survey of Western Art II or equivalent strongly advised.

## ART 317 History of Photography 5

A survey of photography from its origins to contemporary use as a fine art. Attention to developing skills of visual literacy and exploring connections with history, philosophy, mass media and popular culture, and other art forms. Experiential aspects include visits to local galleries and museums. No prerequisites, although ART 212 Survey of Western Art or equivalent strongly advised.
ART 320 Drawing III 5
Application of drawing principles to the study of the human form, the landscape and architecture. Advanced research in perspective, value, and composition with various drawing media. Prerequisite: ART 220 or equivalent.

## ART 330 Relief Printmaking

5
Studio problems and individual development in the relief printmaking process. Woodcut and linocut printmaking will be explored, as well as the creation of edition prints. Prerequisite: ART 100 or ART 120.

## ART 331 Monotype Printmaking 5

Studio problems and individual development in monotype printmaking. Includes ChinCollé, embossing, multiple overlays and color printing processes. Prerequisite: ART 100 or ART 120.

## ART 340 Painting II 5

 practice of painting. Emphasis on development of individual approaches to form and media. Prerequisite: ART 100, ART 120, ART 240, or permission of instructor. Offered every other year.
## ART 350 <br> Sculpture II <br> 5 <br> Advanced hand building techniques in clay. Emphasis on the creation of fine art through the

 development of concepts and content as realized through specifically assigned projects and freelance work. Prerequisite: ART 250 or permission of instructor. Offered every other year.
## ART 360 Black and White Photography III 3

An advanced course in black and white photography designed to teach principles of the zone system and theory on portfolio development. Lectures, discussions, critiques, and slide presentations. Weekly shooting and reading assignments. Students must have their own adjustable 35 mm camera. Prerequisites: ART 160 , ART 265 , or permission of instructor.

## ART 365 Light Control for Photography 3

The use of artificial lighting and design techniques to create still lifes and portraits in the studio. Students work with both stobe and tungsten lighting equipment. Lectures, discussions, critiques, slide presentations, and demonstrations. Emphasis on mastering the equipment, compostion of light and objects, and on image content. Students must have their own adjustable 35 mm camera. Prerequisites: ART 160, ART 265 , or permission of instructor.

ART 391
Special Topics ..... 1-5

ART 392
Special Topics ..... 1-5
ART 393 Special Topics ..... 1-5
ART 440 Painting III ..... 5

Advanced study in the theory and practice of oil and acrylic painting. Emphasis on the continuation of individual approaches to content, form and media. Prerequisite: ART 340 or equivalent.

## ART 450

Sculpture III
5
Advanced study in the theory and practice of ceramic sculpture. Emphasis on the continuation of individual approaches to content, form, materials and methods. Prerequisite: ART 350 or permission of instructor.

## ART 480 Interdisciplinary Core Course 3-5

Title and content vary.
ART 481 Native American Issues and Art 5
Examines the inter-cultural process that has shaped the contemporary arts, while focusing on the Native American ingredient. Guest lectures, articles and text will analyze historical and contemporary issues related to Native Americans in the arts. Written skills will be developed in micro-theme assignments with a final project presentation based upon individual research. Outside activities will be encouraged with the local native arts community. Prerequisite: Senior standing or permission of instructor. Fulfills interdisciplinary core requirement.

## ART $490 \quad$ Senior Thesis and Exhibit

 3-5Individual and group activities include: senior synthesis paper, artist's statement, portfolio, resume, and a group art exhibit including artist's statement, matting, framing, publicity, reception. Prerequisite: senior standing and eligibility for graduation.

ART 491

Special Topics
1-5

ART 492 Special Topics 1-5
ART 493 Special Topics $\quad 1-5$

ART 495 Art Internship 1-5
Supervised work experience or apprenticeship in specific visual art related area of study in the community. Open only to fine art or visual art majors with permission of faculty adviser. Graded CR/F. Prerequisite: junior or senior standing.
ART 496 Independent Study ..... 1-5
ART 497 Directed Reading ..... 1-5
ART 498 Directed Research ..... 1-5Prerequisites: art majors with senior standing only.

## Drama Courses

Eligibility to take these courses will be determined by the instructor after the first day of class.

DRMA 100 Voice and Diction 3
Development of the speaking voice as an instrument of communication on or off stage. Exercises in relaxation, breathing, breath control, voice production, phonetics. Offered every other year.
DRMA 110 Stage Mechanics 2 Introduction to the working theatre: theatre architecture, production organization, the role and function of the stage manager. Offered every other year.

## DRMA 211 Theatre History and Literature I <br> 5

Theatre history within the context of cultural and social ideas. A comprehensive multicultural correlation of the history and growth of theatre and its literature. The beginnings of theatre through the renaissance. Experiential aspect of the course will include attendance at local theatre performances. Fulfills Fine Arts core requirement.

## DRMA 212 Theatre History and Literature II 5

Theatre history within the context of cultural and social ideas. A comprehensive multicultural correlation of the history and growth of theatre and its literature. Seventeenth century through the present. Experiential aspect of the course will include attendance at local theatre performances. Fulfills Fine Arts core requirement.
DRMA 250 Acting I 5
Introduction to acting using the body as an element of composition: movement, body language, mask work, and sensory awareness. Develops aesthetic literacy and critical thinking using mime, improvisation, storytelling, reflective writing and attendance at local theatre performances. (formerly DR 220.) Fulfills Fine Arts core requirement.

## DRMA 260 Design and Technical Theatre I 5

Introduction to the elements of theatre set, lighting, and costume design: visual thinking, script analysis, contemporary materials, reflective writing, and attendance at local theatre performances. Fulfills Fine Arts core requirement. Not for audit.
DRMA 291 Special Topics ..... 1-5
DRMA 292 Special Topics ..... 1-5
DRMA 293 Special Topics ..... 1-5
DRMA 340 Movement ..... 2Aspects of theatrical movement. Each quarter one specific form will be studied, forexample: stage combat, period movement, dance. May be repeated in different subjectareas for a maximum of 6 credits.

## DRMA 350 Acting II 5 <br> Acting with emphasis on realism and beginning scene study. For any level of ability. Develops basic stage craft and characterization.

## DRMA 360 Design and Technical Theatre II 5

Historical study and contemporary projects in theatre set, lighting, and costume design from concept through creation to realization. Prerequisite: Design and Technical Theatre I or permission of instructor. Offered every other year.
DRMA 391 Special Topics ..... 1-5
DRMA 392 Special Topics ..... 1-5
DRMA 393 Special Topics ..... 1-5
DRMA 400 Performance/Production Practicum ..... 1-5
DRMA 401 Performance/Production Practicum ..... 1-5
DRMA 402 Performance/Production Practicum ..... 1-5Participation in university drama productions. Prerequisite: permission of instructor.
DRMA 404 Playwriting ..... 5
Creative writing for performance. Includes development, structure, and editing. Prerequi-site: permission of instructor.
DRMA 415 Auditioning ..... 2The theory and practice of auditioning. Various situations and how to handle them.Preparing and performing audition pieces. Prerequisite: permission of instructor. Offeredevery other year.
DRMA 420 Directing ..... 3Theory and practice in the form and method of script construction. Offered every otheryear. Prerequisite: permission of instructor.
DRMA $430 \quad$ Puppetry ..... 5The art and craft of puppetry: design, construction, manipulation, character development,scripting, performance. Includes historical and cultural perspectives. Prerequisite: per-mission of instructor.
DRMA 450 Advanced Acting ..... 3Acting with emphasis on language and scene study. Develops vocal techniques and style.Prerequisite: Acting I, II, or permission of instructor.
DRMA 460 Advanced Design ..... 3
Advanced projects in theatrical set, lighting and costume design. Prerequisite: Design andTechnical Theatre I, II, or permission of instructor.
DRMA 480 Interdisciplinary Core ..... 3-5
Title and content vary.
DRMA 490 Senior Synthesis ..... 3-5
DRMA 491 Special Topics ..... $1-5$
DRMA 492 Special Topics ..... 1-5
DRMA 493 Special Topics ..... 1-5
DRMA 495 Drama Internship ..... $1-5$Supervised work experience or apprenticeship in specific drama related area of study in thecommunity. Open only to Fine Art or Drama majors with permission of faculty advisor.Graded CR/F. Prerequisites: junior or senior standing.
DRMA 496 Independent Study ..... 1-5
DRMA 497 Directed Reading ..... 1-5
DRMA 498 Directed Research ..... 1-5Prerequisites: Drama majors with senior standing only.

## Music Courses

Eligibility to take these courses will be determined by the instructor after the first day of class.
All courses which may be taken more than once are indicated with an asterisk (*) next to the credits. There is a private music lesson fee. (See Tuition and Fees).
MUSC 110 Piano Lessons *1-2
Private lessons in piano. Mandatory CR/F. Maximum 12 credits. Prerequisite: permission of instructor.
MUSC 111 Voice Lessons *1-2
Private lessons in voice. Mandatory CR/F. Maximum 12 credits. Prerequisite: MUSC 140 or permission of instructor.
MUSC 119 Wind Instrument Lessons *1-2
Flute, clarinet, saxophone, oboe, bassoon. Mandatory CR/F. Maximum 12 credits. Prerequisite: permission of instructor.
MUSC 123 Guitar Lessons *1-2
Private lessons in guitar. Mandatory CR/F. Maximum 12 credits. Prerequisite: permission of instructor.

## MUSC 130 University Chorale <br> *1

Singing and performance skills, musical interpretation, and sight reading. Maximum 12 credits. Prerequisite: permission of instructor.
MUSC 131 Chamber Singers ${ }^{* 1}$
A select, auditioned choir of approximately 27 singers who perform at many on- and offcampus functions as well as in concerts and masses sung by the Chorale. Maximum 12 credits. Prerequisite: audition and permission of instructor.
MUSC 135 Instrumental Ensemble *1
Small ensemble performance experience for persons proficient in voice or an instrument. Maximum 12 credits. Prerequisite: permission of instructor.

## MUSC 140 Beginning Voice Class

MUSC 141 Beginning Guitar Class

MUSC 142 Electronic Piano Class *1
Maximum 3 credits.

## MUSC 200 Comprehensive Musicianship I 5

A study of the language of music. The development of musical skills through reading, writing, musical analysis, ear training and sight singing. Study of the elements and principles of musical design lead to an exploration of the creative process. Attendance at local musical performances. Offered every other year. Fulfills fine arts core requirement.

## MUSC 211 Music History Survey I 5

History of Western music from Medieval to the 20th Century. Experiential aspect of the course will include attendance at local musical performances. Offered every other year. Fulfills Fine Arts core requirement.

## MUSC 212 Music History Survey II 5

History, traditions, and influence of twentieth century music. The variety of topics may include: the music of America, the history of pop and rock ' $n$ ' roll, world music, the history of jazz. Experiential aspect of the course will include attendance at local musical performances. Offered every other year. Fulfills Fine Arts core requirement.
MUSC 291 Special Topics ..... 1-5
MUSC 292 Special Topics ..... 1-5
MUSC 293 Special Topics ..... 1-5
MUSC $\mathbf{3 0 0}$ Comprehensive Musicianship II ..... 5An expansion of the techniques learned in MUSC 200. Prerequisite: MUSC 200 or permis-sion of instructor. Offered every other year.
MUSC $310 \quad$ Piano Lessons ..... *- $1-2$Mandatory CR/F. Maximum 12 credits. Prerequisite: MUSC 110 or permission of instructor.
MUSC 311 Voice Lessons ..... *1-2Mandatory CR/F. Maximum 12 credits. Prerequisite: MUSC 111 or permission of instructor.
MUSC 319 Wind Instrument Lessons ..... *1-2Mandatory CR/F. Maximum 12 credits. Prerequisite: MUSC 119 or permission of instructor.
MUSC 323 Guitar Lessons ..... *1-2Mandatory CR/F. Maximum 12 credits. Prerequisite: MUSC 123 or permission of instructor.
MUSC 330 University Chorale II ..... * 1An expansion of the techniques learned in MUSC 130 along with increased responsibility.Maximum 9 credits. Prerequisite: MUSC 130 or permission of instructor.
MUSC 331 Chamber Singers II ..... *1An expansion of the techniques learned in MUSC 131 along with increased responsibility.Maximum 9 credits. Prerequisite: MUSC 131, audition and permission of instructor.

## MUSC 335 Instrumental Ensemble II *1

An expansion of the techniques learned in MUSC 135 along with increased responsibility. Maximum 9 credits. Prerequisite: MUSC 135 or permission of instructor.
MUSC 391 Special Topics ..... 1-5
MUSC 392 Special Topics ..... 1-5
MUSC 393 Special Topics ..... 1-5
MUSC 480 Interdisciplinary Core ..... 3-5
MUSC 491 Special Topics ..... 1-5
MUSC 492 Special Topics ..... 1-5
MUSC 493 Special Topics ..... 1-5
MUSC 495 Music Internship ..... 1-5
Supervised work experience or apprenticeship in specific music related area of study in thecommunity. Open only to fine arts majors with permission of faculty adviser. Graded CR/F. Prerequisite: junior or senior standing.
MUSC 496 Independent Study ..... 1-5
MUSC 497 Directed Reading ..... 1-5
MUSC 498 Directed Research ..... 1-5Prerequisites: Music minors with senior standing only.

## Foreign Languages

Victor Reinking, PhD, Chair

## Objectives

The foreign language programs in French, German, Japanese, Spanish, Latin, and Greek recognize academic, cultural, and practical purposes:

## Academic

Foreign language study aims at broadening the scope of the student's intellectual development by affording both a facility in foreign languages and knowledge of other cultures. This end is achieved through the major programs in foreign languages or double majors that couple a major or minor in a foreign language with a major in another field.

## Cultural

Learning about another culture and civilization - its history, geography, literature, and art - through the medium of its language leads to a better understanding of one's self and the world in which we live. To achieve this goal, all foreign languages are taught in their cultural context. Courses in French, German, Spanish, Italian, and Japanese are taught in the vernacular.

## Practical

Career opportunities involving foreign languages are expanding. For the university graduate with a specialization in a particular field and with proficiency in foreign languages, openings exist in the following fields: teaching, social work, transportation, military, foreign service, international law, engineering, librarianship, foreign trade, and international business. In addition, many graduate programs require proficiency in foreign language.

## Degree Offered

Bachelor of Arts

## Majors Offered

French
German Area Studies
Spanish
Minor Offered
French
German
Spanish
Japanese

## International Studies

A foreign language concentration is also offered as an option in the international studies major. Please see International Studies section.

## Intensive Programs

Intensive programs offered in French and Spanish during the summer allow the student to complete the first-year basic language course ( 15 credits) in one quarter.

## Credit by Examination and Waiver

The Foreign Languages Department reserves the right to waive specific courses for students who demonstrate, by examination, achievement at the college level. Courses may be waived, allowing substitution of related electives, or credit may be obtained by meeting the university's requirements for credit by examination.

## Study Abroad

The foreign languages department offers a number of study abroad programs. In order to be eligible for the French-in-France program in Grenoble, France, students must have completed first-year French or equivalent. This can be done during the academic year or in the intensive summer language program. Students then spend winter and spring abroad studying language, culture, and civilization at the University of Grenoble under the direction of Seattle University faculty.

The Latin American Studies program, offered winter and spring quarters at the Universidad Ibero-Americana in Puebla, Mexico, requires at least one year of college-level Spanish prior to participation.

German-in-Germany is offered spring quarter only in Frankfurt/Oder, Germany. Students should have completed the first two quarters of university level German language or equivalent to be able to participate.

The university has established reciprocal exchange programs with international universities. Before attending Karl-Franzens Universitaet in Graz, Austria, a student must have at least two years of college-level German, because integration into the Austrian university means that all course work will be in German. An exchange program with the comparative culture faculty at Sophia University in Tokyo, Japan, where course work is in English, allows direct enrollment with one year of previous Japanese language. An agreement with Taejon University in Taejon, Korea, allows students to study in the Korean language any of the regular university courses for which the student is qualified. By special arrangement studies in English are also available. Students from any major may apply for these programs, which allow continued enrollment and financial aid benefits at Seattle University.

Seattle University is also affiliated with the Council for International Educational Exchange, a consortium of colleges and universities which sponsor a variety of academic programs around the world. Federal loans and federal grants can be continued through the Seattle University Financial Aid Office, but no university grants or scholarships are available for CIEE programs.

## Teacher Education

Teacher preparation is a graduate-level program only. Students planning to become elementary or secondary foreign language teachers should major in one of the following languages: French, Spanish, or German Area Studies. Those interested in teaching should contact the Master in Teaching program at (206) 296-5759 to be assigned an adviser to ensure that they meet state requirements for an academic program as well as the specific requirements for MIT admission.
Bachelor of Arts
Major in French
In order to earn the bachelor of arts degree with a major in French, students must completea minimum of 180 quarter credits, with a cumulative grade point average of 2.0 and amajor/program grade point average of 2.5 , including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST 120 Origins of Western Civilization ..... 5
ENGL 120 Masterpieces of Literature ..... 5
MATH $\quad 107$ or 110 or above ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Choose one of the following two courses: ..... 5
HIST 121 Studies in Modern Civilization
HIST 231 Survey of the United States
III. Major Requirements
Fifty-five credits in French, including:
FREN 115 French Language I ..... 5
FREN 125 French Language II ..... 5
FREN 135 French Language III ..... 5
FREN 215 French Language IV ..... 5
FREN 225 French Language $V$ ..... 5
FREN 235 French Language VI ..... 5
FREN 315 French Culture and Civilization ..... 5
FREN 325 Introduction to French Literature ..... 5
FREN Electives (400 level) ..... 15
Please Note: Students who waive elementary language courses may meet the 55 -creditrequirement by substituting approved courses in other disciplines that relate to their foreignlanguage studies or by taking courses in another language.

## Bachelor of Arts <br> Major in German Area Studies


#### Abstract

In order to earn the bachelor of arts degree with a major in German area studies, students must complete a minimum of 180 quarter credits, with a cumulative grade point average of 2.0 and a major/program grade point average of 2.5 , including the following:


## I. Core Curriculum Requirements

ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST 120 Origins of Western Civilization ..... 5
ENGL 120 Masterpieces of Literature ..... 5
MATH $\quad 107$ or 110 or above ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Choose one of the following two courses: ..... 5
HIST 121 Studies in Modern Civilization
HIST 231 Survey of the United States
III. Major Requirements
Fifty-five credits in German language and German area studies, including:
GERM 115 German Language I ..... 5
GERM 125 German Language II ..... 5
GERM 135 German Language III ..... 5
GERM 215 German Language IV ..... 5
GERM 225 German Language V ..... 5
GERM 235 German Language VI ..... 5
GERM 315 German Culture and Civilization ..... 5
Choose four of the following seven courses: ..... 20
HIST 313 Europe in the Age of Industrialization and Imperialism
HIST 315 Europe 1914 to 1945
PHIL 372 20th Century Philosophy
PHIL 362 Existentialism
PHIL 449 Major Figures in the Traditions
PLSC 331 German Politics and Society
PLSC 432 Welfare States
Please Note: 1 . Students who waive elementary language courses may meet the 55 -credit
requirement by substituting approved courses in other disciplines that relate to German studies or by taking courses in another language. 2. Special topics courses will be offered in sociology, theology and religious studies with a German emphasis, and German literature and culture. 3. In courses used in the major designated other than German (GERM), students must write at least one major paper or three smaller papers in German based upon German language sources. 4. Students are strongly encouraged to participate in a foreign study program in a German speaking country as part of this degree program. Courses from Seattle University's program in Frankfurt/0der beyond the seven course minor can be considered as optional electives for this degree program as can approved courses completed at Karl Franzen Universitaet in Graz, Austria under the terms of the reciprocal exchange program.

## Bachelor of Arts <br> Major in Spanish

In order to earn the bachelor of arts degree with a major in Spanish, students must complete a minimum of 180 quarter credits, with a cumulative grade point average of 2.0 and a major/program grade point average of 2.5 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST 120 Origins of Western Civilization ..... 5
ENGL 120 Masterpieces of Literature ..... 5
MATH 107 or 110 or above ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Choose one of the following two courses: ..... 5
HIST 121 Studies in Modern Civilization
HIST 231 Survey of the United States
III. Major Requirements
Fifty-five credits in Spanish, including:
SPAN 115 Spanish Language I ..... 5
SPAN 125 Spanish Language II ..... 5
SPAN 135 Spanish Language III ..... 5
SPAN 215 Spanish Language IV ..... 5
SPAN 225 Spanish Language V ..... 5
SPAN 235 Spanish Language VI ..... 5
SPAN 315 Latin-American and Spanish Culture and Society ..... 5
SPAN 325 Introduction to Latin American and Spanish Literature ..... 5
SPAN Electives ( 400 level) ..... 15
Please Note: Students who waive elementary language courses may meet the 55 -creditrequirement by substituting approved courses in other disciplines that relate to their foreignlanguage studies or by taking courses in another language.
Minor in Modern Languages
To earn a minor in modern languages (either French, German, Japanese, or Spanish),students must complete 35 credits in one modern language, including:
115 Language I ..... 5
125 Language II ..... 5
135 Language III ..... 5
215 Language IV ..... 5
225 Language V ..... 5
235 Language VI ..... 5
315 French, German, Japanese, or Spanish Culture and Society ..... 5
See policy for minors on p .43.

## Modern Language Courses

In order to receive full credit for courses in foreign language they must be taken in the numerical sequence ( 115 through 235) as listed below. A previous course cannot be repeated to improve a grade once a higher course in the sequence is in progress or has been completed.

## French Courses

FREN 115 French Language I 5
FREN 125 French Language II 5
FREN 135 French Language III 5
FREN 215 French Language IV 5
FREN 225 French Language $V$ 5
FREN 235 French Language VI 5
An intuitive approach to understanding, speaking, reading, and writing French. These courses constitute a systematic, programmed study of the French language and culture. All of the French language courses are taught in French.

| FREN 291 | Special Topics | 1 to 5 |
| :--- | :--- | ---: |
| FREN 292 | Special Topics | 1 to 5 |
| FREN 293 | Special Topics | 1 to 5 |
| FREN 315 | French Culture and Civilization | $\mathbf{5}$ |
| An introduction to French culture and civilization with emphasis on the basic traditions and <br> structures of French society. |  |  |

## FREN 325 Introduction to French Literature <br> 5

A general study of literary French, done in the context of a survey of the major texts, authors, and movements in French literature with emphasis placed on the theories and techniques of literary analysis.

FREN 391 Special Topics 1 to 5
FREN 392 Special Topics 1 to 5
FREN 393 Special Topics 1 to 5
FREN 415 French Literature and Culture, 19th Century 5
A study of the literary movements in 19th century French literature, based on a historical approach to representative authors and works.

## FREN 425 French Literature and Culture, 17th Century 5

A study of the development of 17 th century French classicism as it is reflected in the major works of the period.

## FREN 435 French Literature and Culture, 18th Century 5

A survey of the major works of the French enlightenment as it manifests itself in the scientific, philosophic, political, and ethical thinking of the 18th century.

## FREN 445 French Literature and Culture, 20th Century 5

A survey of 20th century French literature and culture that reflects the social and intellectual trends in modern France.

## FREN 450 Methodology of Teaching French 5

An overview of the various methods and approaches currently being used to teach French.

## FREN 452 Language Development/Modern French 5

An in-depth study of the various levels of modern French, with emphasis on the transformation brought about by current social, political, and cultural changes.

## FREN 463 Contemporary France

A study of contemporary French culture involving a survey of texts in French that reflect the issues and changes currently being discussed and debated in modern France.
FREN 491 Special Topics 1 to 5
FREN 492 Special Topics 1 to 5
FREN 493 Special Topics 1 to 5

## German Courses

GERM 115 German Language I 5

GERM 125 German Language II 5
GERM 135 German Language III 5
GERM 215 German Language IV 5
GERM 225 German Language V 5

## GERM 235 German Language VI

An intuitive approach to understanding, speaking, reading, and writing in German. These courses constitute a systematic, programmed study of the German language and culture. All German language courses are taught in German.

| GERM 291 | Special Topics | 1 to 5 |
| :--- | :--- | ---: |
| GERM 292 | Special Topics | 1 to 5 |
| GERM 293 | Special Topics | 1 to 5 |
| GERM 315 | German Culture and Civilization | 5 |

An introduction to the culture and civilization of German-speaking countries with emphasis placed on the importance of geographical, political, and historical factors in their development.
GERM 391 Special Topics 1 to 5
GERM 392 Special Topics 1 to 5
GERM 393 Special Topics 1 to 5
GERM 491 Special Topics 1 to 5
GERM 492 Special Topics 1 to 5
GERM 493 Special Topics 1 to 5

## Japanese Courses

JPAN 115 Japanese Language I 5
JPAN 125 Japanese Language II 5
JPAN 135 Japanese Language III 5
JPAN 215 Japanese Language IV 5
JPAN 225 Japanese Language V 5
JPAN 235 Japanese Language VI 5
An intuitive approach to understanding, speaking, reading, and writing in Japanese. These courses include practice in reading and writing, kanji, hiragana, and katakana.

| JPAN 291 | Special Topics | 1to $\mathbf{5}$ |
| :--- | :---: | ---: |
| JPAN 292 | Special Topics | $\mathbf{1}$ to 5 |
| JPAN 293 | Special Topics | $\mathbf{1}$ to 5 |
| JPAN $\mathbf{3 1 5}$ | Japanese Culture and Civilization | $\mathbf{5}$ |
| An introduction to Japanese culture and civilization with emphasis on the basic traditions |  |  |
| and structures of Japanese society. |  |  |

## Spanish Courses

SPAN 115 Spanish Language I 5
SPAN 125 Spanish Language II 5
SPAN 135 Spanish Language III ..... 5
SPAN 215 Spanish Language IV ..... 5
SPAN 225 Spanish Language V ..... 5
SPAN 235 Spanish Language VI ..... 5
An intuitive approach to understanding, speaking, reading, and writing Spanish. Thesecourses constitute a systematic, programmed study of the Spanish language and culture. Allof the Spanish language courses are taught in Spanish.
SPAN 315 Latin American and Spanish Culture and Society ..... 5
A study of the origins of Spain and Latin America as well as the fusion of both cultures andsocieties. With a socio-historical approach, strong emphasis is placed on cross-culturaldifferences and contemporary customs and lifestyles.
SPAN 325 Introduction to Latin American and Spanish Literature ..... 5An introduction to literary and critical analysis, with readings from Latin American andSpanish authors. This course also provides the student with a theoretical, historical, andcultural framework for more advanced study.

| SPAN 391 | Special Topics | 1 to 5 |
| :--- | :--- | :--- |
| SPAN 392 | Special Topics | 1 to 5 |
| SPAN 393 | Special Topics | 1 to 5 |

SPAN 410 Cervantes ..... 5A study of the life and works of Miguel de Cervantes with special attention to Don Quijotede la Mancha.
SPAN 416 Latin American and Spanish Literafure ..... 5 and Culture, 19th CenturyA study of 19th Century literary movements in Latin America and Spain. An historicalapproach to major works in Spanish.
SPAN 420 Literafure and Revolution ..... 5The impact of social, political, and cultural revolutions upon the literary works of LatinAmerican writers such as Alejo Carpentier, Arturo Uslar Pietri, Carlos Fuentes, JulioCortazar, Mariano Azuela, and Omar Cabezas.
SPAN 426 Latin American Literature and Culture, ..... 5 20th CenturyA study of 20th Century Latin American literary movements; from the creative work of the"Novela del campo"-Gallegos, Rivera, Guiraldes-through the innovative expression ofthe "Vanguardia"-Asturias, Borges, Carpentier, Neruda, Rulfo, Vallejo, and the explosionof "Realismo Magico"-Marquez, Cortazar, Fuentes, Vargas Llosa, to present works.
SPAN 450 Methodology of Teaching Spanish ..... 5An overview of the various methods and approaches being used to teach Spanish.
SPAN 463 Contemporary Spanish Literature and Culture ..... 5Spanish literature and culture of the 20th century; from the "generacion del 98 "-Azorin,Baroja, Unamuno-through the "new Golden Age of Spanish Letters"-Alberti, Aleixandre,Cernuda, Guillen, Lorca-to present works.
SPAN 491 Special Topics ..... 1 to 5
SPAN 492 Special Topics ..... 1 to 5
SPAN 493 Special Topics ..... 1 to 5
Classical Language Courses
Greek Courses
GREK 101 Greek Language I ..... 5
GREK 102 Greek Language II ..... 5
GREK 103 Greek Language III ..... 5
Intensive study of Attic grammar with elementary reading and composition. Greek 103includes reading selections from classical Attic and Koine (New Testament) authors.
Latin Courses
LATN 101 Latin Language I ..... 5
LATN 102 Latin Language II ..... 5
LATN 103 Latin Language III ..... 5Intensive study of grammar with elementary reading and composition. Latin 103 includesselections from classical authors.
Special Topic and Independent Study Language Courses
FRLG 291 Special Topics ..... 1 to 5
FRLG 292 Special Topics ..... 1 to 5
FRLG 293 Special Topics ..... 1 to 5
FRLG 391 Special Topics ..... 1 to 5
FRLG 392 Special Topics ..... 1 to 5
FRLG 393 Special Topics ..... 1 to 5
FRLG 396 Directed Study ..... 1 to 5
FRLG 480 Interdisciplinary Core Course ..... 3 to 5Title and content vary.
FRLG 491 Special Topics ..... 1 to 5
FRLG 492 Special Topics ..... 1 to 5
FRLG 493 Special Topics ..... 1 to 5
FRLG 496 Independent Study ..... 1 to 5
FRLG 497 Directed Reading ..... 1 to 5
FRLG 498 Directed Research ..... 1 to 5

## History

Thomas W. Taylor, PhD, Chair

## Objectives

Defying classification as either humanity or social science, history functions as both. It focuses on the values, as well as the ideas, personalities, and institutions that existed in the past and shaped the present. As concerned with perceptions of reality as with historic reality itself, it attempts to exploit all forms of information concerning the past-myth, folklore, legend, and works of art, as well as conventional manuscript and published sources. And, while the department attempts to assist all students in acquiring that knowledge of the past which is essential to the educated person in the modern world, it is especially concerned with developing the methods and techniques unique to historical inquiry. By consistently raising questions regarding "how we know" as well as "what we know," the department aims at the development of fundamental intellectual skills that will be of lifelong utility.

## Degree Offered

Bachelor of Arts

## Major Offered

History

## Minor Offered

History

## International Studies

A history concentration is also offered as an option in the international studies major. See International Studies section for details.

## Teacher Education

The teacher preparation program is a graduate-level program only. Students interested in teaching should contact the Master in Teaching program at (206) 296-5759 to be assigned an adviser to ensure that they meet state requirements for an academic program as well as the specific requirements for MIT admission.

## Bachelor of Arts Major in History

In order to earn the bachelor of arts degree with a major in history, students must complete a minimum of 180 credits with a cumulative grade point average of 2.0 and major/program grade point average of 2.5 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English .............................................................................. 5
PHIL 110 Introduction to Philosophy and Critical Thinking ............................... 5
ENGL 120 Masterpieces of Literature ................................................................. 5

Lab Science ......................................................................................................... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Foreign Language $115,125,135$, or equivalent ..... 15
Please Note: All students with a major in the College of Arts and Sciences must demonstratecompetency in a foreign language through the 135 level. This competency is ordinarilyachieved by successful completion of the three-course sequence: 115,125 , and 135 . Becausethese courses are a college requirement, no course in the sequence may be taken on a pass/fail, correspondence, or audit basis. Placement into other than the beginning course of thesequence is achieved by acceptable performance on the Foreign Language CompetencyExamination. See the Foreign Language Department for details on the examinations.
III. Major Requirements
Sixty credits in history, including:
HIST 120 Origins of Western Civilization ..... 5
Choose one of the following two courses: ..... 5
HIST 121 Studies in Modern Civilization
HIST 231 Survey of the United States
HIST 200 Introduction to World History ..... 5
HIST 201 Workshop in World History ..... 5
HIST Electives (300-400-level) ..... 30
HIST Research Seminar (400-level) ..... 10
Please Note: HIST 200 and 201 are to be completed by the end of the junior year.

## Policy for Honors Students

Honors program students who have completed all five of the honors history courses may earn a history major by taking an additional 35 credits in history. These credits must include HIST 200 and HIST 201.

## Minor in History

In order to earn a minor in history, students must complete 35 credits in history, including: HIST 120 Origins of Western Civilization .............................................................. 5
Choose one of the following two courses: ..... 5HIST 121 Studies in Modern CivilizationHIST 231 Survey of the United States
HIST 201 Workshop in World History ..... 5
HIST Electives (300-400-level) ..... 20

Please Note: Honors program students who have successfully completed all five honors history courses may earn a minor in history by completing 15 or more history credits at the 300-400 level.
See policy for minors on p. 43.

## History Courses

## HIST 120 Origins of Western Civilization

Traditional societies of the Western world, their values, institutions and historical development from ancient times to the modern era.
HIST 121 Studies in Modern Civilization 5
The process of modernization in the West and the world.

## HIST 200 Introduction to World History

Foundational course in the major which will examine the main themes and eras in world history while introducing students to the state of the discipline of history.

## HIST 201 Workshop in World History 5

Focuses specifically on problems of data collection, comparative analysis, and interpretation that are part of the discipline generally. Will be practiced here within the context of world history and thus the course will serve as a complement to HIST 200.

## HIST 231 Survey of the United States 5

A topical survey focusing on the United States as a model of the modern society and an analysis of the conflicts generated by competing traditional and modern value systems in American society
HIST 301 The Roman Republic 5
This course will examine Rome from its beginnings to the death of Caesar and the collapse of the Republic.

## HIST 302 The Roman Empire 5

The history of the Roman empire from its establishment by Augustus unitl its final collapse in A.D. 476.

## HIST 303 Foundations of European Civilization 5

The emergence of the Carolingian Empire and Anglo-Saxon England. Western European relations with the Byzantine and Arab-Mohammedan states.

## HIST 304 Greece to the End of the Peloponnesian War <br> 5

Political and cultural history of Greece to the death of Socrates. First in a two quarter series on ancient Greece.

## HIST 305 Alexander and the Hellenistic World

Fourth century Greece, the failure of the polis, rise of Macedon, Alexander's Persian campaign and the successor kingdoms to the death of Cleopatra. Also a brief exploration of Judea under the Greek kings.

## HIST 306

Europe of the High Middle Ages
An analysis of the cultural, political, and social institutions of medieval Europe.
HIST 307 Europe in the Renaissance Era 5
A study and interpretation of the many facets of change which brought the Middle Ages to an end and began the distinctive modern developments in the West, 1350-1550.

## HIST 309 Europe in the Reformation Era

Study of the political responses by the new monarchies and the religious responses of the Christian churches to the new socio-economic conditions and cultural transformations of Western modernity, 1500-1660.
HIST 310 Europe in the Age of Expansion 5
The period covered will move from the Renaissance to the French and Haitian revolutions of the 1790s and the course will examine how the expanded world of the Atlantic impacted the older cultures and civilization of Europe.
HIST 311 Europe of the 18th Century 5
Cultural and political ferment of Western civilization in the century of the Enlightenment and the French Revolution.

## HIST 313 Europe in the Age of Industrialization and Imperialism

Study of the impact of European industrialization and nation-building at home and abroad. (formerly titled Europe of the 19th Century)

## HIST 315 Europe 1914-1945

5
Examination of the causes of WWI, the impact on European society, the Russian revolution, rise of Fascism. WWII and the Holocaust. (formerly titled Europe of the 20th Century)

## HIST 328

US Women's History
The course will examine the role of women in family, society, and culture. The particular emphasis may change from time to time or from instructor to instructor, but the focus will remain the social history of women. Applies to women's studies minor.

HIST 331
Peoples of Early America
5
An exploration of early American societies from prehistoric times to the verge of the American Revolution. (formerly titled Colonial America)

## HIST 333 The Age of the American Revolution <br> 5

Seven Years War to the 1820s. (formerly titled The Beginnings of the United States)
HIST 335 Expansion and the Crisis of the Union 5
The U.S. in the age of Jackson: antebellum reform movements; territorial expansion; slavery and abolition; the Civil War and Reconstruction. Social, political, and economic issues provide major foci, though diplomatic and military topics are also considered.
HIST 337 The United States from the Gilded Age to the Jazz Age
The course will cover the late nineteenth and early twentieth centuries and create a continuum of chronological coverage. (formerly titled The United States in the Progressive Era)

## HIST 339 Recent United States

5
The culture of the 1920s, the Great Depression, the Second World War, contemporary American society.
HIST 340 American Indian History 5
A survey of American Indian history from prehistoric times to the present.
HIST 341 The Pacific Northwest
Past development and present problems of the states comprising the Pacific Northwest, with emphasis on Washington state.

## HIST 342 United Stafes Immigration History 5

The course will focus on the experience of the Irish \& German immigrants of the mid-19th centry and of Eastern and Southern Europeans, Asians, and Mexicans of the late 19th and early 20th centuries. The attitudes of both immigrants and natives are to be examined as well as issues fo assimilation. (formerly titled American Ethnic Minorities)

## HIST 343 American Society and Culture <br> 5

Social and intellectual history of the United States, with emphasis on the 19th and 20th centuries.

## HIST 349 Contemporary U.S. Since 1945 <br> 5

An examination of the major changes in the period after the Second World War, with special emphasis on the development of American pluralism.

## HIST 351 Environmental History 5

A historical survey of human interaction with the environment. Topics include images of nature, case studies in human modification of the environment, social conflicts over land and resource use, and the emergence of the environmental movement in the 20th century.

## HIST 381 Chinese Civilization 5

The development of Chinese culture, thought, and institutions down to the late 19th century.

## HIST 383 China-20th Century 5

The Western impact and the Chinese revolutions from the Opium War to the People's Republic.
HIST 385 Traditional Japan ..... 5
The development of Japanese culture, thought, and institutions to 1867.
HIST 387 Modern Japan ..... 5

The transformation of Japan from feudalism to imperial power and industrial giant, 1867 to present.
HIST 389 Modern Asia Revolutions ..... 5

Problems and forces in selected Asian nations in the 20th century, especially of circumstances, leaders, tactics, and doctrines of revolutionary groups in China. (formerly HS 481)
HIST 391 Special Topics 1 to 5
HIST 392 Special Topics 1 to 5
HIST 393 Special Topics 1 to 5
HIST 400 Historiography 5
Historical study and writing and the philosophy of history from the earliest times to the present.
HIST 412 The French Revolution and Napoleon 5
Studies in the institutions and events which led to the fall of old France. Research seminar.

## HIST 419 Great Historical Figures 5

An analysis of a major historical figure in the context of his or her times. Considers the impact of an individual upon events as well as that of events upon the individual. Research seminar.

HIST 420 Hitler and the Holocaust
5
Seminar will examine the rise of Hitler, the Nazi Revolution, World War II, and the Holocaust. Students will work on the research paper using primary documents.

## HIST 434 Early American History 5

Seminar in colonial and early national periods with research paper required. (formerly titled American Revolution and Confederation)

## HIST 435 Jackson, Civil War, and Reconstruction 5

Research seminar on social, political, and economic aspects of the U.S. during the antebellum eras, the Civil War, and reconstruction. (formerly titled American Civil War and Reconstruction)

## HIST $480 \quad$ History of Modern Science 5

This course examines the significant development in the history of physics and biology and then explores the impact of these developments on modern Western thought and politics. It will further scrutinize the ethical and moral dilemmas faced by modern scientists through examination of issues such as the building of the atom bomb. Satisfies the interdisciplinary core requirement.

## HIST 481 Community and Conflict in Europe since 1945 5

The first part of this couse examines international relations in Europe since the end of World War II, particularly the Cold War and the European Community. The second half investigates how political and social movements have shaped European identity. Of special interest are questions of immigration and racism, the student movements of the ' 60 s and the terrorism of the ' 70 s and ' 80 s. Satisfies the interdisciplinary core requirement.

| HIST 491 | Special Topics | 1 to 5 |
| :--- | :--- | :--- |
| HIST 492 | Special Topics | 1 to 5 |
| HIST 493 | Special Topics | 1 to 5 |

## HIST 495 Internship

Offers students the opportunity for experience with public history in off-campus agencies. Internships are appropriate for senior level students.
HIST 496 Independent Study 1 to 5
HIST 497 Directed Reading 1 to 5
HIST 498 Directed Research 1 to 5
Department permission required.

Honors Program

David W. Madsen, PhD, Director

## Objectives

The Honors Program is a two-year program designed to develop students who can think, read, write, and speak integratively across various university disciplines. The courses are historically arranged, beginning with the Ancient Near East and proceeding through the civilizations of the Hindus, Hebrews, Greeks, Romans, and Medieval Europeans to modern and contemporary times. The various disciplines-literature, thought, history, fine arts, and science-are correlated to provide the student with the greatest possible depth in each period under examination. The program is conducted according to the dialogue method in seminars. In addition, each quarter the student must write at least one paper in each course and be prepared to defend this written work in a tutorial session of five or six students and the instructor. Examinations are normally oral and are given at the end of each quarter.

## Applications/Scholarships

Applicants are accepted into the Honors Program on the basis of their academic record and on providing evidence that they are willing to make the extra effort necessary to meet the intellectual challenges provided through the Honors Program. In addition to the Seattle University application, the candidates must apply directly to the Honors Program. Honors scholarships are granted on the condition that students participate in the Honors Program for a minimum of eight credit hours per quarter and maintain at least a 3.0 grade point average.

## Program Requirements

After acceptance into the program those students who complete each of the course sequences numbered HONR 101 through HONR 251 have satisfied the university core curriculum requirements except for those in mathematics, interdisciplinary course, and senior synthesis. A minimum of 70 credits is required for completion of the Honors Program. Students who limit themselves to the minimum credits must be attentive as to which Honors Program courses fulfill the university core requirements. Completion of the Honors Program will be noted on the student's exit transcript. All HONR courses are closed to non-matriculated students.

## Degree Major

Students enrolled in the Honors Program identify their major as "Honors" even if they are beginning foundational work in their degree major, such as premed or business. Upon completion of the program or in their junior year, students will declare their degree major and transfer to the academic department of their choice. Students who decide to major in philosophy, English or history and have completed the Honors Program sequence in these disciplines will have already accumulated five or six quarters of foundational credits toward their major. Such students are ready to move into upper division course work in the philosophy, English or history majors.

## Honors Program Courses

$$
\begin{array}{llr}
\text { HONR } 101 & \text { Humanities Seminar - Thought } & \mathbf{5} \\
\text { HONR } 102 & \text { Humanities Seminar - Thought } & \mathbf{4} \\
\text { HONR } 103 & \text { Humanities Seminar - Thought } & \mathbf{5} \\
\text { Critical reading and discussion of the works that have most deeply influenced the develop- } \\
\text { ment of the Western world, including the Old Testament, Pre-Socratics, Plato, Aristotle, } \\
\text { New Testament, St. Augustine, St. Thomas, Duns Scotus, William of Ockham. }
\end{array}
$$

HONR 111 Humanities Seminar - Literature 4
HONR 112 Humanities Seminar - Literature 4
HONR 113 Humanities Seminar - Literature 4
Critical examination of those literary works that have most deeply influenced the development of the Western world, including the Bhagavad Gita, Homer and the Greek playwrights, Virgil, Beowulf, Song of Roland, Dante, and Chaucer.
HONR 121 Humanities Seminar - History 4
HONR 122 Humanities Seminar - History 4
HONR 123 Humanities Seminar - History 4
Historiography and historical survey of the Near East, Hebrew, Greek, Roman, Medieval, and Renaissance eras.

## HONR 131 Humanities Seminar - Modes of Inquiry 3 and Knowing

Focus is on the theory and practice of how we know. Depending on the instructor, students might study modes of inquiry and their historical evolution in disciplines such as theology, the social, biological, and physical sciences, philosophy, fine arts, literature or law.
HONR 142 Humanities Seminar - Art 2
Synoptic view of art history; period and national styles; principles and implication of design.
HONR 201 Humanities Seminar - Thought 4
HONR 202 Humanities Seminar - Thought 4
HONR 203 Humanities Seminar - Thought 5
Critical reading and discussion, including Descartes, Hobbes, Locke, Spinoza, Leibniz, Rousseau, Hume, Wollestonecraft, Kant, Hegel, J.S. Mill, Nietzsche, Marx, Sartre, Heidegger, Merleau-Ponty, Ricoeur.
HONR 211 Humanities Seminar - Literature 4
HONR 212 Humanities Seminar - Literature 4
HONR 213 Humanities Seminar - Literature 4
Shakespeare, Donne, Moliere, Milton, Dryden, Pope, Goethe, the Romantics, Victorians, Russian novelists, and modern literature through the Existentialists to the post-moderns.
HONR 221 Humanities Seminar - History ..... 4
HONR 222 Humanities Seminar - History ..... 4
The study of historical eras, issues, and documents from the Reformation to modern times,
HONR 231 Humanities Seminar - Science ..... 3A historical and philosophical examination of assumptions and experiments in the physicalor biological sciences.
HONR 232 Humanities Seminar - Science ..... 4A three-hour lecture and three-hour laboratory course in the biological sciences whichfulfills the core requirement in science.
HONR 243 Humanities Seminar - Music ..... 2Survey of European musical tradition with focus on major composers and generic forms.
HONR 251 Humanities Seminar - Social Science ..... 4An introduction to political science or sociology through an examination of influentialthinkers in either field.
HONR 291 Special Topics ..... 1 to 5
HONR 292 Special Topics ..... 1 to 5
HONR 293 Special Topics ..... 1 to 5
HONR 480 Interdisciplinary Core Courses ..... 3 to 5
Title and content change each term.
HONR 490 Humanities Senior Seminar ..... 3 to 5
Reading and discussion of major synthetic literature in the humanities on selected topics.Prerequisite: approval of instructor.
HONR 496 Independent Study ..... 1 to 5Private work by arrangement. Prerequisite: approval of program director.

## Interdisciplinary Studies-Social Science

Bradley Scharf, PhD, Coordinator

## Objectives

Contemporary society is marked by many changes and controversies about how major institutions can best respond to emergent problems. Public engagement begins with moral awareness, but the path to effective action runs through systematic analysis of aggregate human behavior. Interdisciplinary social science courses take students beyond common sense to the point where value choices meet studies of general causation. Students become involved in the definition of important issues, as well as in the actual practice of using empirical data to sort out alternative modes of action.

## Interdisciplinary Social Science

ISSS 120 Poverty in America 5
The causes and consequences of poverty in America today are explored with the resources of four disciplines: economics, psychology, sociology, and political science. Alternative theories and reforms are evaluated. Includes service learning. Correlates with PHIL 220 in core phase II. (former title Social Science Inquiry)

## International Studies

Paul B. Milan, Ph.D., Coordinator

## Objectives

The International Studies Program is an interdisciplinary major which permits a multifaceted focus on Asia, Europe, or Latin America. The aim of the program is to provide Seattle University students with the opportunity to study their disciplinary concentration while examining the modern social, political, economic, and cultural influences of a foreign country and how these influences affect that discipline. The perspectives acquired through this program will provide students with an awareness and greater understanding of how one reacts not only to one's own cultural experiences, but also to the cultural values of another country. As a result of students' studies and foreign experiences, they will develop those qualities that will allow them to interact in an international setting.

## Degree Offered

Bachelor of Arts

Majors Offered
International Studies/East Asian Studies
International Studies/Economics
International Studies/Foreign Language
International Studies/History
International Studies/Politics

## Minor Offered

International Studies

## Sfudy Abroad

The International Studies Program offers university-approved study abroad opportunities through exchange, consortia, and independent programs. Each program will demonstrate high academic standards within an educational philosophy that insists upon theoretical and practical interaction within each cultural setting. The international studies major requires a learning program in a country other than the United States. An acceptable study abroad experience encompasses a minimum of 25 quarter credits or 15 semester credits. See university-sponsored programs listed under the foreign language department. Additional overseas courses are occasionally offered by the College of Arts and Sciences and by the Albers School of Business and Economics.

## Bachelor of Arts <br> Major in International Studies/East Asian Studies

In order to earn the bachelor of arts degree with a major in international studies/East Asian studies, students must complete a minimum of 180 credits with a cumulative grade point average of 2.0 and major/department grade point average of 2.5 , including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST 120 Origins of Western Civilization ..... 5
ENGL 120 Masterpieces of Literature ..... 5
MATH $\quad 107$ or 110 or above ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I (not economics or political science) ..... 5
Social Science II (ECON 271 required) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Foreign Language $115,125,135$, or equivalent ..... 15
HIST 121 Studies in Modern Civilization ..... 5Please Note: 1. All students with a major in the College of Arts and Sciences must demonstratecompetency in a foreign language through the 135 level. This competency is ordinarily achievedby successful completion of the three-course sequence: 115,125 , and 135 . Because thesecourses are a college requirement, no courses in the sequence may be taken on a pass/fail,correspondence, or audit basis. Placement into other than the beginning course of the sequenceis achieved by acceptable performance on the Foreign Language Competency Examination. Seethe Foreign Language Department for details on the examinations. 2. Students educated to the ageof 16 in schools outside the United States may use HIST 231 as a substitute for HIST 121.
III. Major Requirements
Sixty-five credits in international studies, including:
Foreign Language above 135 (Japanese, Chinese, or Korean\#) ..... 15
HIST (related to East Asia) ..... 10
(Choose from HIST 381, 383, 385, 387, 389, or alternate approved by international studies director)
PLSC 231 Diversity and Change ..... 5
PLSC 260 Intro to Global Politics ..... 5
PLSC Upper Division Electives (International or Comparative) ..... 10
Approved Elective ..... 5
Choose three of the following East Asia electives or approved alternate courses: ( $300-400$ level) ..... 15
ENGL 393 Japan and the West
ENGL 430 Japanese Drama
JPAN 315 Japanese Culture and Civilization
TRST 267 Spiritual Traditions, East and West*
TRST 371 Christian-Buddhist Dialogue*
Language courses above 235\#Chinese language requirement can be fulfilled through study abroad; Korean through studyat Taejon University as part of reciprocal exchange.
IV. Major Department Prerequisite
ECON 272 Microeconomics5

Please Note: *1. If TRST 267 or 371 are used to satisfy core requirements they may not be taken as major electives. 2. Approval for major electives must be obtained from the adviser appointed by the international studies director. 3. See departmental listings for course descriptions. 4. Major requires participation in an approved study abroad program for two quarters or one semester. 5 . International students educated to age 16 in a language other than English may request a waiver of the foreign language requirement, substituting additional approved electives in international areas.

## Bachelor of Arts Major in International Studies/Economics

In order to earn the bachelor of arts degree with a major in international studieseconomics, students must complete a minimum of 180 credits with a cumulative grade point average of 2.0 and major/department grade point average of 2.5 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST 120 Origins of Western Civilization ..... 5
ENGL 120 Masterpieces of Literature ..... 5
MATH ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I (not economics or political science) ..... 5
Social Science II (ECON 271 required) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Foreign Language $115,125,135$, or equivalent ..... 15
HIST 121 Studies in Modern Civilization ..... 5

Please Note: 1. All students with a major in the College of Arts and Sciences must demonstrate competency in a foreign language through the 135 level. This competency is ordinarily achieved by successful completion of the three-course sequence: 115,125 , and 135 . Because these courses are a college requirement, no courses in the sequence may be taken on a pass/ fail, correspondence, or audit basis. Placement into other than the beginning course of the sequence is achieved by acceptable performance on the Foreign Language Competency Examination. See the Foreign Language Department for details on the examinations. 2. Students educated to the age of 16 in schools outside the United States may use HIST 231 as a substitute for HIST 121.
III. Major Requirements
Sixty-five credits in international studies, including:
ECON 330 International Economic Events ..... 5
ECON 374 Intermediate Microeconomics ..... 5
Business/Economics International Electives ..... 15(Choose from ECON 376, 379, 386, 472, 473, FINC 446 $\dagger$, MGMT$320 \dagger$, or MKTG $456 \dagger$ )
Foreign Language above 135 ..... 15
HIST Elective (non-U.S.) ..... 10
(Choose from HIST 313, 315, 381, 383, 387, 389, 420, 481)
PLSC 260 Introduction to Global Politics ..... 5
PLSC Upper Division Elective (International or Comparative) ..... 5
Approved Elective* ..... 5
IV. Major Department Prerequisite
ECON 272 Microeconomics ..... 5
MATH 130 or 134 (prerequisite to upper-division business or economics) ..... 5Please Note: *1. Approved major elective cannot be in the discipline of the chosen concen-tration. 2. Approval for major electives must be obtained from the adviser for internationalstudies in the department of concentration. 3. See departmental listings for course descrip-tions. 4. Major requires participation in an approved study abroad program for two quartersor one semester. 5. International students educated to age 16 in a language other than Englishmay request a waiver of the foreign language requirement, substituting additional approvedelectives in international areas. $\ddagger 6$. The prerequisite requirements for FINC 446, MGMT 320,and MKTG 456 are junior standing and all specific prerequisite courses listed in the Bulletinof Information.
Bachelor of Arts
Major in International Studies/HistoryIn order to earn the bachelor of arts degree with a major in international studies/history,students must complete a minimum of 180 credits with a cumulative grade point averageof 2.0 and major/department grade point average of 2.5 , including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST 120 Origins of Western Civilization ..... 5
ENGL 120 Masterpieces of Literature ..... 5
MATH $\quad 107$ or 110 or above ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I (not economics or political science) ..... 5
Social Science II (ECON 271 required) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Foreign Language 115, 125, 135, or equivalent ..... 15
HIST 121 Studies in Modern Civilization ..... 5
Please Note: 1. All students with a major in the College of Arts and Sciences must demonstrate competency in a foreign language through the 135 level. This competency is ordinarily achieved by successful completion of the three-course sequence: 115,125 , and 135 . Because these courses are a college requirement, no courses in the sequence may be taken on a pass/ fail, correspondence, or audit basis. Placement into other than the beginning course of the sequence is achieved by acceptable performance on the Foreign Language Competency Examination. See the Foreign Language Department for details on the examinations. 2. Students educated to the age of 16 in schools outside the United States may use HIST 231 as a substitute for HIST 121.
III. Major Requirements
Sixty-five credits in international studies, including: Foreign Language above 135 ..... 15
HIST Elective (non-U.S.) ..... 20
(Choose from HIST 313, 315, 381, 383, 387, 389, 420, 481)
PLSC 231 Diversity and Change ..... 5
PLSC 260 Introduction to Global Politics ..... 5
PLSC Upper Division Elective (International or Comparative) ..... 10
Approved Elective* ..... 5
Choose one of the following six courses: ..... 5
ECON 330 International Economic Events
ECON 376 Economic Development
ECON 379 Comparative Economic Systems
ECON 386 International Business Enterprises
ECON 472 International Trade
ECON 473 International Macroeconomics and Finance
IV. Major Department Prerequisite
ECON 272 Microeconomics ..... 5Please Note: ${ }^{*}$. Approved major elective cannot be in the discipline of the chosen concen-tration. 2. Approval for major electives must be obtained from the adviser for internationalstudies in the department of the student's concentration. 3. See departmental listings forcourse descriptions. 4. Major requires participation in an approved study abroad program fortwo quarters or one semester. 5 . International students educated to age 16 in a language otherthan English may request a waiver of the foreign language requirement, substituting additionalapproved electives in international areas.
Bachelor of Arts
Major in International Studies- Foreign Language

In order to earn the bachelor of arts degree with a major in international studies/foreign language, students must complete a minimum of 180 credits with a cumulative grade point average of 2.0 and major/department grade point average of 2.5 , including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST 120 Origins of Western Civilization ..... 5
ENGL 120 Masterpieces of Literature ..... 5
MATH $\quad 107$ or 110 or above ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I (not economics or political science) ..... 5
Social Science II (ECON 271 required) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Foreign Language 115, 125, 135, or equivalent ..... 15
HIST 121 Studies in Modern Civilization ..... 5
Please Note: 1. All students with a major in the College of Arts and Sciences must demonstrate competency in a foreign language through the 135 level. This competency is ordinarily achieved by successful completion of the three-course sequence: 115,125 , and 135 . Because these courses are a college requirement, no course in the sequence may be taken on a pass/ fail, correspondence, or audit basis. Placement into other than the beginning course of the sequence is achieved by acceptable performance on the Foreign Language Competency Examination. See the Foreign Language Department for details on the examinations. 2. Students educated to the age of 16 in schools outside the United States may use HIST 231 as a substitute for HIST 121.

## III. Major Requirements

Sixty-five credits in international studies, including:
Foreign Language above 13525
HIST Elective (non-U.S.) ..... 10
(Choose from HIST 313, 315, 381, 383, 387, 389, 420, 481)
PLSC 231 Diversity and Change ..... 5
PLSC 260 Introduction to Global Politics ..... 5
PLSC Upper Division Elective (International or Comparative) ..... 10
Approved Elective* ..... 5
Choose one of the following six courses: ..... 5ECON 330 International Economic Events
ECON 376 Economic Development
ECON 379 Comparative Economic Systems
ECON 386 International Business Enterprise
ECON 472 International Trade
ECON 473 International Macroeconomics and Finance
IV. Major Department Prerequisite
ECON 272 Microeconomics ..... 5

Please Note: *1. Approved major elective cannot be in the discipline of the chosen concentration. 2. Approval for major electives must be obtained from the adviser for international studies in the department of the student's concentration. 3. See departmental listings for course descriptions. 4. Major requires participation in an approved study abroad program for two quarters or one semester. 5. International students educated to age 16 in a language other than English may request a waiver of the foreign language requirement, substituting additional approved electives in international areas.

## Bachelor of Arts <br> Major in International Studies/Politics

In order to earn the bachelor of arts degree with a major in international studies/politics, students must complete a minimum of 180 credits with a cumulative grade point average of 2.0 and major/department grade point average of 2.5 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST 120 Origins of Western Civilization ..... 5
ENGL 120 Masterpieces of Literature ..... 5
MATH ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I (not economics or political science) ..... 5
Social Science II (ECON 271 required) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin
II. College of Arts and Sciences Requirements
Foreign Language 115, 125, 135, or equivalent ..... 15
HIST 121 Studies in Modern Civilization ..... 5

Please Note: 1. All students with a major in the College of Arts and Sciences must demonstrate competency in a foreign language through the 135 level. This competency is ordinarily achieved by successful completion of the three-course sequence: 115,125 , and 135 . Because these courses are a college requirement, no course in the sequence may be taken on a pass/ fail, correspondence, or audit basis. Placement into other than the beginning course of the sequence is achieved by acceptable performance on the Foreign Language Competency Examination. See the Foreign Language Department for details on the examinations. 2. Students educated to the age of 16 in schools outside the United States may use HIST 231 as a substitute for HIST 121 .
III. Major Department PrerequisiteSixty-five credits in international studies, including:Foreign Language above 13515
HIST Elective (non-U.S.) ..... 10
(Choose from HIST 313, 315, 381, 383, 387, 389, 420, 481)
PLSC 231 Diversity and Change ..... 5
PLSC 260 Introduction to Global Politics ..... 5
PLSC Upper Division Electives (International or Comparative) ..... 20
Approved Elective* ..... 5
Choose one of the following six courses: ..... 5
ECON 330 International Economic Events
ECON 376 Economic Development
ECON 379 Comparative Economic Systems
ECON 386 International Business Enterprises
ECON 472 International Trade
ECON 473 International Macroeconomics and Finance
IV. Other Program Requirements
ECON 272 Microeconomics ..... 5
Please Note: *1. Approved major elective cannot be in the discipline of the chosen concen-tration. 2. Approval for major electives must be obtained from the adviser for internationalstudies in the department of the student's concentration. 3. See departmental listings forcourse descriptions. 4. Major requires participation in an approved study abroad program fortwo quarters or one semester. 5. International students educated to age 16 in a language otherthan English may request a waiver of the foreign language requirement, substituting additionalapproved electives in international areas.

## Minor in International Studies

In order to earn a minor in international studies, students must earn 30 credits in courses with an international focus, including:

| ECON | Elective $\qquad$ <br> (Choose from ECON 330, 376, 379, 386, 472, 473) |
| :---: | :---: |
| HIST | Elective (non-U.S.) $\qquad$ 10 <br> (Choose from HIST 313, 315, 381, 383, 387, 389, 420, 481) |
| PLSC | Electives (dealing with international and foreign systems, 300-400 level) $\qquad$ 10 |

Please Note: ECON 271 and 272 are prerequisites to upper division economics courses. See policy for minors on p. 43.

# Liberal Studies Program 

Betsey Barker Klein, MA, Director

## Objectives

The study of the humanities, social sciences, and sciences has long been recognized as the finest preparation for the challenges presented in a world requiring critical reflection, creativity, open-mindedness, and the courage of personal conviction. The Liberal Studies Program is designed for students with initiative and curiosity who want to use their skills and knowledge to make a contribution to society through the wide array of opportunities open to persons who are thoughtful, articulate, and liberally educated. Professions in the fields of government, law, education, business, communications, and a wide range of cultural endeavors consistently require persons with both breadth of vision and breadth of knowledge.

The focus of each student's program is determined by the person's ultimate aspirations. With the guidance of the program director, the student examines the options available in the various disciplines that can be combined into a rich and coherent degree program. The program's interdisciplinary character contributes to the development of both perspective and judgment essential to success in all human endeavors.
The Liberal Studies program is recommended for students who plan to teach at the elementary level. Specific courses are recommended by the School of Education and students planning to become teachers should inform the School of Education as soon as possible.

## Degree Offered

Bachelor of Arts

## Major Offered

Liberal Studies

## Bachelor of Arts Major in Liberal Studies

In order to earn the bachelor of arts degree with a major in liberal studies, students must complete a minimum of 180 credits with a cumulative grade point average of 2.0 and major/ program grade point average of 2.5 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English .............................................................................. 5
PHIL 110 Introduction to Philosophy and Critical Thinking .............................. 5
HIST 120 Origins of Western Civilization .......................................................... 5
ENGL 120 Masterpieces of Literature ................................................................. 5
MATH 107 or 110 , or above ......................................................................... 5
Lab Science .......................................................................................................... 5
FINR 120 or approved fine arts alternate ............................................................ 5
PHIL 220 Philosophy of the Human Person ...................................................... 5
Social Science I .......................................................................................................... 5
Social Science II (different discipline from Social Science I) .................................. 5
Theology and Religious Studies Phase II (200-299) ................................................. 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis satisfied by LBST 490
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Foreign Language $115,125,135$, or equivalent ..... 15
Please Note: All students with a major in the College of Arts and Sciences must demonstrate competency in a foreign language through the 135 level. This competency is ordinarily achieved by successful completion of the three-course sequence: 115,125 , and 135 . Because these courses are a college requirement, no courses in the sequence may be taken on a pass/ fail, correspondence, or audit basis. Placement into other than the beginning course of the sequence is achieved by acceptable performance on the Foreign Language Competency Examination. See the Foreign Language Department for details on the examinations.
Choose one of the following two courses: ..... 5
HIST 121 Studies in Modern Civilization
HIST 231 Survey of the United States
III. Major RequirementsSixty credits in liberal studies, including:
Humanities (300-400-level) ..... 20English, fine arts, foreign language, history, philosophy, and religious studies,including five credits in composition/writing
Social Sciences (300-400-level) ..... 15
Anthropology, communications, criminal justice, economics, political science, psychology, sociology, and a limited number of addiction studies courses
Natural Science Electives ..... 10
Math, Statistics, or Computer Science Elective ..... 5
CMJR 225, 230, 355, 361, 385 or equivalent ..... 5
Choose one of the following two courses:
LBST 490 Senior Synthesis / Project or approved course ..... 5
Please Note: 1. 40 credits must be taken at $300-400$-level; 25 of these must be taken atSeattle University. 2. Courses used to satisfy major requirements may not simultaneously fulfillcore requirements.
Liberal Studies Course
LBST $490 \quad$ Senior Synthesis/Project ..... 5In the senior year students either take an approved seminar course offered by one of theother majors in the College of Arts and Sciences, or work on a research project that buildson previous studies. Students' faculty advisers must grant final approval of projects, basedon written outlines. The thematic content of projects are determined by students' alreadyapproved academic program.

# Medieval Studies Minor 

David W. Madsen, PhD, Adviser

## Objectives

The program of courses comprising the medieval studies minor will enable humanities students to gain an interdisciplinary insight into the medieval mind and heart. Though open to any undergraduate, this minor is designed to complement major studies in philosophy, history, English, and foreign language, and humanities studies in the Honors Program. All courses will have three objectives: (1) to enter into the ethos of this period through a synthesis of tests, methods, and viewpoints from a variety of disciplines, (2) to develop an adequate scholarly apparatus, and (3) to prepare and qualify students for graduate studies in this area.

## Minor in Medieval Studies

In order to earn a minor in medieval studies, students must complete 30 credits of course work in medieval studies. The first of the following two lists designates courses approved for students enrolled in the Honors Program. The second designates courses approved for students not enrolled in the Honors Program.

## Approved courses for students enrolled in the Honors Program:

Honors
HONR 103 Humanities Sem: Thought (Medieval Philosophy) ..... 5
HONR 113 Humanities Sem: Literature (Dante and Chaucer) ..... 4
HONR 122 Humanities Sem: History (Early Medieval) ..... 4
HONR 123 Humanities Sem: History (High Medieval) ..... 4
English (Literature)
ENGL 326 Dante's Divine Comedy ..... 5
ENGL 328 Chaucer ..... 5
ENGL 491-93*Special Topics in Medieval Literature ..... 1 to 5
Fine Arts
ART 391-393 Special Topics in Medieval Art ..... 3
DRMA 391-393Special Topics inMedieval Drama ..... 2
History
HIST 491-93* Special Topics in Medieval History ..... 1 to 5
Language (Latin)
LatN 102 Latin Language II (Prereq: Latin I) ..... 5
LATN 103 Latin Language III ..... 5
FRLG 291-93*Special Topics in Latin Language ..... 1 to 5
FRLG 391-93*Special Topics in Latin Language ..... 1 to 5
Medieval Studies
MVST 491-93*Special Topics: Medieval Studies ..... 1 to 5
MVST 496* Independent Study: Medieval Studies ..... 1 to 5
Philosophy
PHIL 491-93* Special Topics: Medieval Philosophy ..... 1 to 5
Religious Studies
TRST 491-93 Special Topics: Medieval Theology ..... 5
Approved courses for students not enrolled in the Honors Program
See departmental listings for course descriptions.
English (Literature)
ENGL 326 Dante's Divine Comedy ..... 5
ENGL 328 Chaucer. ..... 5
ENGL 391-93 Medieval Literature ..... 5
ENGL 491-93*Special Topics in Medieval Literature ..... 1 to 5
Fine Arts
ART 391-93 Special Topics: Medieval Art ..... 3
DRMA 351 Medieval Drama ..... 2
History
HIST 303 Foundations Eur. Civ.: Early Medieval History ..... 5
HIST 306 Europe of the High Middle Ages ..... 5
HIST 491-93* Special Topics in Medieval History ..... 1 to 5
Language (Latin)
LaTN 102 Latin Language II (Prereq: Latin I) ..... 5
LATN 103 Latin Language III ..... 5
FRLG 291-93* Special Topics in Latin Language ..... 1 to 5
FRLG 391-93* Special Topics in Latin Language ..... 1 to 5
Medieval Studies
MVST 491-93*Special Topics: Medieval Studies ..... 1 to 5
MVST 496-98*Independent Study: Medieval Studies ..... 1 to 5
Philosophy
PHIL 442 Medieval Synthesis (Augustine/Aquinas) ..... 5
PHIL 491-93* Special Topics: Medieval Philosophy ..... 1 to 5
Religious Studies
TRST 491-93 Special Topics: Medieval Theology ..... 5
*Special topics courses will be announced at least one quarter before being offered.Consult quarterly schedule of classes for listings approved for minor. Independent studycourses may be arranged with individual faculty members in conjunction with the minorcoordinator.
Please Note: 1. Courses taken for the minor may also be applied to a major in the department offering these courses (e.g., PHIL 442 may be applied to both the medieval studies minor and a major in philosophy).
2. Reading competence in the Latin language is strongly advised. LATN 101 may not be applied to the minor. LATN 102, LATN 103, and all more advanced Latin courses may be applied to the minor. No more than 10 credits of Latin language may be applied to the minor. 3. No more than 10 credits from any discipline may be applied to the minor. 4. Up to 15 transfer credits may be applied to the minor when approved by the medieval studies coordinator.5. Courses having an MVST prefix, that is, special topics courses (MVST 491-MVST 493) and independent study courses (MVST 496-MVST 498), may be applied only to the medieval studies minor. 6. Honors Program students may apply no more than 15 credits of Honors medieval course work to the Medieval Studies minor. 7. Some Honors Program courses are similar to upper-division courses offered by the humanities departments. Honors Program students may not apply these
courses to the minor: PHIL 442 (similar to HONR 103), Medieval Literature (similar to HONR 113), HIST 303 (similar to HONR 122), or HIST 306 (similar to HONR 123). 8. Students who decide to pursue a minor in medieval studies should contact the coordinator of the minor. In consultation with the coordinator, students will design a program that best fits their interests and complements their majors. The coordinator posts the list of all approved classes each quarter, and assures that all requirements are fulfilled and that the minor is noted on the transcript. 9. See policy for minors on p. 43.

## Courses Specific to the Medieval Studies Minor

| MVST 491 | Special Topics | 1 to 5 |
| :--- | :--- | :--- |
| MVST 492 | Special Topics | 1 to 5 |
| MVST 493 | Special Topics | 1 to 5 |
| MVST 496 | Independent Study | 1 to 5 |
| MVST 497 | Directed Reading | 1 to 5 |
| MVST 498 | Directed Research | 1 to 5 |
| Permission of minor adviser required. |  |  |

## Military Science

Lieutenant Colonel Kerry S. Abington, Chair

## Objectives

To prepare academically and physically qualified college women and men for the rigor and challenge of serving as officers in the United States Army-active, national guard, or reserve. To that end, the program stresses service to country and community through the development of leadership traits and values necessary for success as an Army commissioned officer.

## The Program

The program has been designed to complement the historical mission of Seattle University in teaching and learning, education for values, preparation for service, and growth of persons. Through the program's elective courses, students are exposed to a rigorous curriculum where they learn vital management and leadership skills not available in other college courses. It is multifaceted with distinctive sub-elements to meet individual needs and requirements. For example, ROTC is traditionally a four-year program, but individuals with prior service, members of reserve or National Guard units, participants of JROTC in high school, and summer basic camp attendees may complete the program in only two years. Normally, all students participate in two class days per week (two to three hours), one workshop (leadership lab) per quarter, and one overnight field exercise per quarter. Physical fitness of all cadets is closely monitored.

The program allows for scholarship assistance for selected students, a monthly stipend for all scholarship and third and fourth year students, and attendance at confidencebuilding courses during the summer: Air Assault School, Airborne School, and cadet troop leadership training. For specifics about the program, please contact the professor of military science for additional information. High school seniors interested in applying for a four-year scholarship must submit applications by November 15 of their senior year. College freshmen and sophomores may be eligible to apply for three-year and two-year scholarships.

## Financial Aid

Cadets receive financial aid in three forms: Two-, three-, and four-year scholarships that are awarded by the Department of the Army annually. Scholarship amounts pay full tuition and mandatory fees and are enhanced by room and board grants provided by Seattle University.

## Commissioning Requirements

To be commissioned in the United States Army, students must complete the military science curriculum, including successful completion of the five-week advanced camp at Fort Lewis, WA, the summer prior to the senior year.

## The Curriculum

The curriculum is designed to prepare students to become future leaders of the U.S. Army by instilling army values and developing leader attributes, skills, and actions. Behavioral development occurs through course work in the areas of professional military education (PME), military knowledge (MK), and military skills (MLSC).

PME requirements, met through the student's course of academic studies or by evaluation of student skills, develop student's ability to communicate appropriately in writing, understand the human aspects of command, and to become familiar with personal computer terminology, hardware, and application software. Courses meeting these requirements are taught by other departments in the university but they are required for completion of the ROTC program.

Military knowledge courses provide a foundation in such areas as leadership theory, ethics, roles, and responsibilities of the officer and military operations. Military skills are developed during the conduct of leadership workshops and quarterly field training exercises. In addition, the evolution of warfare and military theory with a particular emphasis on the place of military institutions in society will be included.

Leadership development occurs both in and out of the classroom by placing students in a variety of leadership positions. Oral presentations and writing requirements are incorporated in all classes as another means of developing oral and written communication skills.

## Basic Course

The term Basic Course refers to first and second year courses, MLSC 113, 114, 120, 213, 221, and 222, which are designed for beginning students who want to qualify for entry into the Advanced Course and for those students who may want to try Military Science without any obligations. A number of popular or challenging extracurricular activities are associated with these courses. A student can also qualify for entry into the Advanced Course by completing the summer encampment, Camp Challenge.

## Freshman year

MLSC 113, 114, and 120 6
PME: English 110 or equivalent ............................................................................................................................................

## Sophomore year

MLSC 213, 221, 222 6
MLSC 217 Army Conditioning ..... 1
PME: Course in psychology, sociology, anthropology, or ethics ..... 5

## Advanced Course

## Junior year

MLSC 321, 322, and 323 .......................................................................................... 9
MLSC 314 .......................................................................................................... 4

## Senior year

MLSC 421, 422, and 423 ........................................................................................... 9
Please Note: Special topics or independent study courses may be substituted for some courses listed above with the approval of the professor of military science.

## Military Science Basic Courses

MLSC 113 The Profession of Arms 2
Make your first new peer group at college one committed to performing well and enjoying the experience. Learn the fundamentals of leadership and team building - skills to serve you well in any capacity. Also included are rappelling skills and the basics of physical fitness. Includes one leadership lab and one weekend orientation exercise.

## MLSC 114 Skills for Military Leaders

2
An introductory course to train students in the use of topographic maps for navigation. Students also learn basic first aid skills and increase confidence through team study. Emphasis is on performance oriented practical exercises. Includes one leadership lab.

## MLSC 120 Effective Communication for Leaders 2

Students learn different types of briefings and the essentials of writing well through practical exercise. Includes instruction in the Army Writing Style. Students also develop leadership skills through experiential learning and the development and accomplishment of a class service project. Course includes one training exercise and one leadership lab.

## MLSC 213 Leadership in Organizations

Students learn the principles of management and leadership through a series of simulations, lectures, projects and readings. Topics encompass organizational behavior, leadership theories, management competencies and communication skills. Includes a service project, a weekend orientation exercise and a leadership lab.

## MLSC 217 Army Conditioning 1

A physical fitness program designed to develop students to the Army standard of physical fitness. Required prior to attendance at camps, air assault, and airborne schools.

## MLSC 221 American Military History I: The Revolution to World War I <br> 2

A survey course designed to introduce the student to military history through the eyes of the profession. Includes instruction about battle tactics through historic examples. Students participate through readings, lecture, and oral and written presentations. Includes one leadership lab.
MLSC 222 American Military History II: World War II to the Present

2
A continuation of MLSC 221, this course builds on the knowledge acquired in MLSC 221 to give the student an understanding of modern military history. Includes instruction about battle tactics through historic examples. Students participate through readings, lecture, and oral and written presentations. Includes one leadership lab and one training exercise.

## MLSC 291

Special Topics
1 to 5
MLSC 292
Special Topics
1 to 5
MLSC 293
Special Topics
1 to 5
MLSC 296

## Military Science Advanced Courses

## MLSC 314 Advanced Camp

A five-week camp conducted at Fort Lewis, WA. Only open to (and required of) students who have completed MLSC 301, 312, 313. The student receives pay. Travel, lodging and most meal costs are defrayed by the US Army. The Advanced Camp environment is highly structured and demanding, stressing leadership at small unit levels under varying, challenging conditions. Individual leadership and basic skills performance are evaluated throughout the camp. Although this course is graded on Pass/Fail basis only, the leadership and skills evaluated at the camp weigh heavily in the subsequent selection process that determine the type of commission and job opportunities given to the students upon graduation for ROTC and the university.
MLSC 321 Land Navigation Competencies 3
Advanced principles of land navigation and orienteering using terrain association, map reading and aerial photograph interpretation. Permission of instructor. Includes one leadership lab and one field training exercise.

MLSC 322 Small Unit Leadership I
An orientation to the competencies required of the small unit leader. Includes organizational structure, squad tactics, oral and written orders and communications. Permission of instructor. Includes one leadership lab and one field training exercise. (formerly MLSC 312)

MLSC 323 Small Unit Leadership II 3
A continuation of MLSC 322. Includes platoon tactics, how to plan and conduct training and a review of leadership theories. Permission of instructor. Includes one leadership lab and one field training exercise. (formerly MLSC 313)
MLSC 391 Special Topics 1 to 5
MLSC 396 Directed Study 1 to 5

MLSC 421 Professionalism I 3
A course which assists students in coming to grips with the concept of officership. Covers command and staff procedures, training management, military justice, law of land warfare, and battle analysis. Permission of instructor. Includes one leadership lab and one field training exercise. (formerly MLSC 412)
MLSC 422 Professionalism II 3
The capstone course prior to commissioning, discusses the role of the officer and the institution in a rapidly changing world environment. Covers just war theory, military ethics, force protection, and joint doctrine. Includes one leadership lab and one field training exercise. (formerly MLSC 413)
MLSC 423 Transition to Lieutenant 3
Continues the methodology from MLSC 422. Prepare for a future as a successful Army lieutenant. Includes one leadership lab and one field training exercise. (formerly MLSC 414)

# Aerospace Studies (Air Force ROTC) 

Col. David A. Reinholz, Department Chair, Faculty, University of Washington

## Objectives

Air Force Reserve Officer Training Corps (AFROTC) is offered to Seattle University students through an agreement with the University of Washington. The Air Force ROTC program is designed to motivate, educate, and commission highly qualified students for active duty as officers in the U.S. Air Force. The curriculum develops the professional knowledge, in both theory and application, that an Air Force officer needs to be an effective manager and leader in the aerospace environment.

## General Program Requirements

The freshman- and sophomore-level classes (general military course) are open to U.S. citizens between the ages of 14 and 26 attending any two- or four-year college or university full time. Ninety percent of all professional officer course students are on scholarship. Students of all majors are eligible to apply for a scholarship. For further information contact the recruiting officer at (206) 543-2360 or write Recruiting Officer, AFROTC Det 910, University of Washington, Box 353830, Seattle, WA 98195-3830.

## Commissioning Requirements

Students who successfully complete the AFROTC program and receive an academic degree from Seattle University are offered commissions as second lieutenants in the U.S. Air Force.

## General Military Course (GMC)

The basic level courses consist of one classroom hour and two leadership laboratory hour per week during the freshman and sophomore years. Uniforms and textbooks are provided. Students may enter the freshman class at the start of fall, winter, or spring quarters. Sophomore students may enter at the start of fall or winter quarters. A four- or five-week field training course, taken during the summer between the sophomore and junior years, is required for entry into the professional officer course. Students receive pay and travel costs for field training. Except for sophomore cadets on AFROTC scholarships, students incur no active duty service commitment from enrollment in the GMC, and students may drop the courses at any time.

## Professional Officer Course (POC)

Cadets selected for enrollment in POC receive tax-free monthly subsistence pay of $\$ 150$. They are furnished text books and uniforms. Junior- and senior-level classes consist of three hours of academic classes and two hours of leadership laboratory per week. Students are obligated to serve four years of active duty as Air Force officers after college graduation.

## Financial Assistance

The Air Force offers two- and three-year scholarships to qualified college students. Scholarships are available in the areas of engineering, science and technology, nursing, medicine, law, nontechnical, and others. Most AFROTC scholarships pay tuition up to $\$ 15,000$ per year, fees, and $\$ 480$ a year for texbooks. In addition, scholarship winners receive a $\$ 150$ subsistence allowance per month. Students awarded scholarships from the

Air Force ROTC Scholarship Board are eligible for a supplemental room grant. To take advantage of these scholarships, students should apply directly to AFROTC Det 910, University of Washington, Box 353830, Seattle, WA 98195-3830 or call (206) 543-2360, or e-mail to afrotc@u.washington.edu.

## Two-Year Program

To provide for those students who did not elect to enroll in the general military courses, a two-year option is available. The two-year program is open to students who have two years remaining until graduation. Students in this program are required to attend a six-week field training course at an Air Force base during the summer preceding program entry. Students are paid during the six-week period. Upon return to campus, students pursue the professional officer course. Uniform, text books, and $\$ 150$ monthly subsistence are provided. Partial incentive scholarships are available for students with a minimum 2.35 term GPA and 2.00 cumulative GPA in any major. Students interested in this program must apply to AFROTC.

## General Military Courses

Offered at the University of Washington

$$
\begin{array}{llr}
\text { AS } 101 & \text { Aerospace Studies } 100 & 1 \\
\text { AS } 102 & \text { Aerospace Studies } 100 & \mathbf{1} \\
\text { AS } 103 & \text { Aerospace Studies } 100 & \\
\text { A survey course introducing topics relating to the Air Force and defense, including Air Force } \\
\text { career opportunities, flight dynamics, and a survey of the other braches of the military } \\
\text { services. Officership qualities and written communication skills will be emphasized. The } \\
\text { Weekly Leadership Lab (LLAB), consisting of Air Force customs and courtesies, health and } \\
\text { physical fitness, and drill and ceremonies, is provided for all students who are interested } \\
\text { in becoming Air Force officers. Credit does not apply to the bachelor's degree. }
\end{array}
$$

AS 211 Aerospace Studies 200 ..... 1
AS 212 Aerospace Studies 200 ..... 1
AS 213 Aerospace Studies 200 ..... 1Factors contributing to the development of air power from its beginnings to the present andthe evolution of air power concepts and doctrine. History of air power employment inmilitary and nonmilitary operations in support of national objectives. Assessment ofcommunicative skills. Additional one-hour leadership laboratory is available.
Professional Officer CoursesOffered at the University of Washington

AS 331
AS 333 Aerospace Studies $\mathbf{3 0 0}$3Emphasis on leadership and management fundamentals, professional knowledge, leader-ship ethics, and communicative skills required of an Air Force junior officer. Case studiesare used to examine leadership and management situations. Mandatory leadership labora-tory provides advanced leadership experiences in officer-type activities, giving students theopportunity to apply learned principles.
AS 431 Aerospace Studies 400 ..... 3
AS 432 Aerospace Studies 400 ..... 3
AS 433 Aerospace Studies 400 ..... 3Needs for national security, evolution of American defense strategy and policy, methods formanaging conflict, alliances, and regional security to preserve American interests. Armscontrol and terrorism. The military as a profession; officership; the military justice system;current military issues; refinement of communicative skills. Preparation for active duty.Leadership opportunities are provided.

# Naval Science (Navy ROTC) 

Capt. Marc A. Helgeson, PNS, Department Chair, University of Washington

## Objectives

Naval ROTC is offered to Seattle University nursing students through an agreement with the University of Washington. The objective of Naval ROTC is to educate and train young men and women to become officers in the United States Navy or Marine Corps. The single largest source of officers for the Navy and Marine Corps, NROTC provides prospective candidates a liberal educational background.

## General Program Requirements

Classes are taught at the University of Washington in Clark Hall. Classes are open to all Seattle University students via UW Extensions. It is not necessary to be a member of the NROTC Unit to take naval science classes.

## Commissioning Requirements

Students who successfully complete Naval ROTC and receive a nursing degree from Seattle University will be offered commissions as officers in the United States Navy Nurse Corps.

## Scholarships

Four- and two-year scholarships are offered for nursing program students only. Naval ROTC scholarships pay for 100 percent of tuition and books, as well as a $\$ 150$ tax-free subsistence payment each month. To take advantage of these scholarships, students should apply directly to NROTC Unit, University of Washington, Box 353840 , Seattle, WA $98195-$ 3840, or call (206)543-0170.
The two-year scholarship covers the final two years of college. When accepted, students attend the six-week Naval Science Institute at Newport, Rhode Island, during the summer between their sophomore and junior years to bring them up-to-date on the NROTC curriculum missed during their freshman and sophomore years. Students interested in twoyear scholarships should contact the NROTC Unit in January of their sophomore year.

## Two-Year Program

The program is open to college students who will complete their sophomore year or third year in a five-year curriculum. The two-year scholarship covers the final two years of college. When accepted, students attend the six-week Naval Science Institute at Newport, Rhode Island, during the summer between their sophomore and junior years to bring them up to date on the NROTC curriculum missed during their freshman and sophomore years.

## College Program

Each year, men and women are accepted for four- and two-year non-scholarship college programs. For the four-year program, the professor of naval science accepts applications from qualified students throughout the freshman year. Applications for the two-year program are accepted from current sophomores in community colleges or four-year colleges and must be received prior to the beginning of March.


#### Abstract

Those students selected for the two-year program attend a six-week course of instruction at the Naval Science Institute during the summer prior to their junior year. Successful completion of the NSI instruction qualifies students for enrollment in the advanced course in the NROTC program. Students in the NROTC college program pay their own college expenses but receive monthly subsistence pay of $\$ 150$ during their junior and senior years, including the intervening summer. The Navy furnishes all uniforms and textbooks used in naval science courses.


## Naval Science Courses

Offered at the University of Washington

## N SCI 111 The Naval Service 3

General introduction to the Navy, its organization, missions, roles, tasks, and operating methods. The relationship to the other services within the Department of Defense is emphasized.
N SCI 112 Sea Power Practicum I 2
N SCI 113 Sea Power Practicum II 2
A comprehensive study of the role of sea power in the history of the United States, the current status of the various elements of the nation's sea power as they influence the development and implementation of national security policy, and the economic effects of the elements of sea power (the Navy, the Merchant Marine, port facilities, fisheries, and oceanographic capabilities).

## N SCI 211 Naval Weapon Systems 3

Concept of naval weapons systems and the systems approach, the techniques of linear analysis of ballistics and weapons, the dynamics of basic components of weapons control systems. The tools are provided for understanding the basic principles that are involved in all modern naval weapon systems.
N SCI 212 Naval Ship Systems I 3
N SCI 213 Naval Ship Systems II 3
Study of the varied ship systems operational in the Navy today, including the principles of characteristic propulsion systems and auxiliary machinery and the elements of ship stability and damage control. An introduction to nuclear propulsion, gas turbines, and auxiliary power systems.

## N SCI 311 Navigation 3

The science and practice of maritime coastal navigation, including visual fixing, dead reckoning, and piloting methods. Computation of tides and currents and nautical rules of the road.

## N SCI 312 Navigation II <br> 3

Theory and practice of celestial navigation and relative motion. The student performs the complete day's work of the ship's navigator.
N SCI 313 Naval Operations 3
Introduction to naval operations, the employment of naval forces, naval tactics, formulation of operations plans and orders, employment of detection equipment, and meteorology.

## N SCI 411 Psychology of Leadership 3

Introduction of the theory and techniques of naval leadership based on those principles of behavioral science that are pertinent to understanding individual and group behavior of adults. It introduces students to the management process and the relationship of management functions to leadership. Acceptance of a traditional deep sense of moral responsibility on the part of the aspiring leader is stressed.

## N SCI 412 Naval Organization and Management I 3

## N SCI 413 Naval Organization and Management II 3

Study of organization, systems, and techniques employed in the Navy for management of its human, financial, and material resources. Some of the work relates to the administration of discipline in the Navy under the Uniform Code of Military Justice. Emphasis is placed on the leadership and management role of the junior officer in the fleet.

## Marine Corps Option Courses

Offered at the University of Washington
N SCI 321 Evolution of Warfare I 3
N SCI 322 Evolution of Warfare II 3
N SCI 323 Evolution of Warfare III 3
Introduction to the art of war, the evolution of warfare from the earliest recorded battles to the present day.
N SCI 421 Amphibious Warfare I ..... 3
N SCI 422 Amphibious Warfare II ..... 3
Provide basic knowledge of evolution of amphibious warfare from premodern era to present. Strategic and tactical considerations in planning specific operations and amphibi- ous landings.
N SCI 423 USMC Leadership and ..... 3 Administration of Justice

Concepts, objectives, characteristic qualities, and practical techniques of leadership as exercised by the Marine Corps officer are studied. Emphasis is placed on the leadership and management role of the junior officer in the fleet Marine forces.

Philosophy

Rosaleen Trainor, CSJP, PhD, Chair

## Objectives

The study of philosophy begins with questions that are as personal as they are universal: What truths can I know? How should I live? Who, or what, am I? Where is my place in the grand scheme of things? To respond fruitfully to such questions requires training in critical habits of mind, learning from the rich traditions and the great minds that have meditated on such questions, and engaging in lively discussion with a community of inquirers. Seattle University undergraduate philosophy courses communicate the value of philosophy and impart knowledge of its most influential figures. Even more, the courses help students bring their own intellectual concerns into dialogue with great minds of the past and present, and hone skills of reasoning and argumentation that make that questioning illuminating, reliable, and useful.
Elective courses support a major in philosophy that emphasizes skills of textual analysis, knowledge of the history of philosophy, and familiarity with contemporary figures and major trends.

## Degree Offered

Bachelor of Arts

## Major Offered <br> Philosophy <br> Minor Offered

Philosophy

## Bachelor of Arts Major in Philosophy

In order to earn the bachelor of arts degree with a major in philosophy, students must complete a minimum of 180 credits with a cumulative grade point average of 2.0 and major/ program grade point average of 2.5 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ..... 5
HIST 120 Origins of Western Civilization ..... 5
ENGL 120 Masterpieces of Literature ..... 5
MATH $\quad 107$ or 110 or above ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis ..... 3See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Foreign Language $115,125,135$, or equivalent ..... 15
Please Note: All students with a major in the College of Arts and Sciences must demonstratecompetency in a foreign language through the 135 level. This competency is ordinarilyachieved by successful completion of the three-course sequence: 115,125 , and 135 . Becausethese courses are a college requirement, no courses in the sequence may be taken on a pass/fail, correspondence, or audit basis. Placement into other than the beginning course of thesequence is achieved by acceptable performance on the Foreign Language CompetencyExamination. See the Foreign Language Department for details on the examinations.
Choose one of the following two courses: ..... 5
HIST 121 Studies in Modern Civilization
HIST 231 Survey of the United States
III. Major RequirementsFifty-five credits in philosophy, including:
A. Foundations
PHIL 110* Introduction to Philosophy and Critical Thinking ..... 5
PHIL 220* Philosophy of the Human Person ..... 5
PHIL 260 Logic ..... 5
B. Ethics
PHIL 312, 345, 351, 352, 353, 354, 358, or 359 ..... 5
C. History and Traditions
PHIL 370 Modern Philosophy ..... 5
PHIL 441 Greek Philosophy: Plato/Aristotle ..... 5
PHIL 442 Medieval Philosophy: Augustine/Aquinas ..... 5
PHIL 449 Major Figures in the Traditions ..... 5
D. Topics and Controversies
PHIL Approved Electives (300-400 level) ..... 15
*Please Note: Students who matriculate with 90 or more credits in transfer and no philosophy will substitute PHIL 210 for PHIL 110 and PHIL 220. Approved electives will then number 20 credits rather than 15.

## Policy for Honors Students

Honors Program students who have successfully completed the HONR courses listed below are exempted from PHIL 220 and ethics, but need an additional 30 credits to complete the major: PHIL 260 or 261, 441, 449 and 15 credits of approved electives. They are credited with the following equivalents:
HONR 101 = PHIL 110
HONR 102/3 = PHIL 442
HONR 201 = PHIL 370
HONR $202=$ PHIL 371
HONR 203 = PHIL 372

## Minor in Philosophy


#### Abstract

In order to earn a minor in philosophy, students must complete 30 credits in philosophy, including: PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5 PHIL 220 Philosophy of the Human Person ..... 5 PHIL 345 Ethics (or other approved upper-division ethics) ..... 5 PHIL Electives ..... 15

Please Note: 1 . The department can assist students to design a special track in the philosophy minor that complements the student's major field. 2. Students who have completed the Honors Program need an additional 10 elective philosophy credits to complete the minor. 3. See policy for minors on p. 43.


## Philosophy Courses

## PHIL 110 Introduction to Philosophy and Critical Thinking 5

 A combined historical and problematic approach to the nature of philosophical inquiry. Reflection upon fundamental philosophical problems provides the context for mastering basic tools of critical interpretation, logical reasoning, argumentative writing, and responsible cognitive communication. Prerequisite: ENGL 110.
## PHIL 210 Philosophy of the Human Person (Bridge)

This course is a modification of PHIL 220 for transfer students for whom PHIL 110 has been waived and who have had no previous philosophy course. It introduces students to the nature of philosophical inquiry and includes the issues contained in PHIL 220.

## PHIL $220 \quad$ Philosophy of the Human Person 5

Critical examination of the nature and powers of the human person. Special emphasis on the human knowing process and the problems of human freedom and personal responsibility. Prerequisite: PHIL 110.

## PHIL 260

Systematic treatment of traditional logic. The themes of communication and language, division and definition, propositions, syllogisms, and the nature of science will be examined.

PHIL 300
Nature and Cosmos 5
Philosophical appraisal of contemporary cosmological theory. Possible topics include the Big Bang and before; cosmic expansion and the ultimate fate of the universe; space, time, and general relativity; singularities and black holes; the search for a unified field theory; the relation of cosmology to theology. Prerequisite: PHIL 210 or 220.

## PHIL 305

Philosophy of Social Sciences
Study of the philosophical implications and presuppositions of the methodology and conceptual framework of the social and behavioral sciences; sociology, economics, and/ or psychology. Prerequisite: PHILL 210 or 220.

## PHIL 306 Philosophy and Psychology

 5A study of the interrelationships between philosophical methods and contents, and the method and contents of psychology, with special focus on the psychoanalytic and phenomeno-logical-existential developments of psychological theory. Prerequisite: PHIL 210 or 220.

## PHIL 308 Philosophy and Literature <br> 5

An examination of philosophical themes in literature and of the philosophical dimensions of literary interpretation and criticism. Prerequisite: PHIL 210 or 220.

## PHIL 309 Environmental Philosophy 5

An examination of the two key debates: anthropocentrism (human-central view of the world) vs. non-anthropocentrism, and individualism vs. ecological holism. Several specific environmental problems are treated, including animal rights issues. Prerequisite: PHIL 210 or 220 .

## PHIL 312 Social Ethics 5

Moral problems raised by the relation between individuals and their societies: the common good, the justification of authority, rights and responsibilities of individuals and societies. Prerequisite: PHIL 210 or 220.

## PHIL 315 Buddhist Philosophy

Study of the path of right living as expressed in the mystical and religious philosophy of Buddha. Prerequisite: PHIL 210 or 220.

## PHIL 324 Philosophy of Religion

Examines attempts to rationally prove (or disprove) the existence of God. The divine attributes and the problem of evil are also treated. Thinkers from several traditions are studied.

PHIL 325

## Philosophy of Art

5

Philosophical reflection on the nature of art and its reality; beauty as a transcendental property of being and its relationship to art and the artist. Prerequisite: PHIL 210 or 220.

## PHIL 326 Philosophy of Law 5

An investigation into the nature of law, the relation between law and morality, the limits of law, and the nature of justice and rights. Prerequisite: PHIL 210 or 220.

## PHIL $335 \quad$ Philosophy of History

Consideration of the aim and scope of history, the meaning of the historical event, the nature of historical explanation, and the criterion for historical truth from the points of view of leading representatives of both the speculative and analytical schools. Prerequisite: PHIL 210 or 220.

## PHIL 336 Philosophical Impact of 5 Scientific Revolutions

Critical examination of one or more major scientific revolutions e.g., the Copernican, Galilean-Newtonian, Darwinian, or Einsteinian revolutions - and of philosophical responses to such emergent scientific views. Prerequisite: PHIL 210 or 220.

## PHIL 337 Social and Political Philosophy 5

General overview of major thinkers or focus on particular theme(s) in the history of Western social-political theory, from the ancients to the present-day. Prerequisite: PHIL 210 or 220.

## PHIL 345 Ethics 5

General theory of moral behavior, ethics as a science, the purpose of human life and the means of attaining this goal. Applications of general ethical theory in specific instances. Prerequisite: PHIL 210 or 220.

## PHIL 351 Business Ethics 5

Application of general ethical theory to those problems directly related to the business world. Prerequisites: PHIL 210 or 220; ECON 271.

PHIL 352 Health Care Ethics 5
Application of general ethical theory to basic problems encountered in the health care professions; professional secrecy, rights of patients, distribution of healthcare resources. Prerequisite: PHIL 210 or 220.

## PHIL 353 Ethical Issues in Science and Technology

An application of ethical theories to morally problematic situations confronted in the sciences and in science-based professions. Possible topics include rights and responsibilities; social experimentation; safety and acceptable risk; privacy, confidentiality, and whistle blowing; international and environmental obligations; discrimination and harassment. Prerequisite: PHIL 210 or 220.

## PHIL 354 Ethics and Criminal Justice

 5Critical analysis of the ethical issues facing criminal justice practitioners, such as the use of deadly force, conformity to the rules of one's office, the decision to prosecute, participation in plea bargaining, representation of the guilty, and the imposition of punishment. Prerequisite: PHIL 210 or 220.

## PHIL 358 Communication Ethics 5

Ethical responsibilities of the communicator, in both interpersonal and media settings. Critical examination of ethical codes in establishing relationships and conducting communication in a democratic society. Topics covered include: lying, withholding information, conflicts of interest, objectivity, service to audiences. Prerequisites: PHIL 210 or 220, and at least one of the following: CMJR 201, 210, or 260.

## PHIL 359 Professional Ethics

 5This course will provide the foundations for dealing with the ethical issues professionals in various fields encounter. In addition to the conceptual foundation of professional ethics, attention is given to such issues as truth-telling, informed decision-making, confidentiality, and justice. Prerequisite: PHIL 210 or 220.

## PHIL 360 Analytic Philosophy

5Readings from source material of 20th century analytic philosophers. Investigation of contemporary schools of logical positivism and linguistic analysis from Russel to Wittgenstein. Prerequisite: PHIL 210 or 220.

## PHIL 361 Phenomenology

Focus on the "pure" phenomenology of Edmund Husserl, the ontological phenomenology of Heidegger, and Merleau-Ponty's phenomenology of the lived-body. Prerequisite: PHIL 210 or 220.

## PHIL 362 Existentialism

The themes of anxiety, despair, guilt, and freedom in the writings of Kierkegaard, Nietzsche, Sartre, Camus, Jaspers, and others. Prerequisite: PHIL 210 or 220.
PHIL 363 Hermeneutics 5
An examination of the role of interpretation in human understanding, focusing on the work of such thinkers as Gadamer, Heidegger, Schleiermacher, Dilthey, Habermas, and Ricoeur. Prerequisite: PHIL 210 or 220.

## PHIL 364 American Philosophy

Offers, at the discretion of the instructor, either a general overview of the history of the American philosophical tradition from Puritanism to the present or a focused study of a particular movement (e.g., pragmatism) or theme (e.g., community) in that tradition. Prerequisite: PHIL 210 or 220.

## PHIL $366 \quad$ Process Philosophy <br> 5

Critical reflection on the philosophies of such thinkers as Bergson, Pierce, Whitehead, and Hartshorne. Prerequisite: PHIL 210 or 220.

## PHIL $367 \quad$ Gender and Social Reality

A study of the influence of feminist thinking on metaphysics, epistemology, ethics, and the methodology of philosophy. Prerequisite: PHIL 210 or 220.
PHIL 370 Modern Philosophy 5
A seminar study of major figures of the 17th and 18th centuries, such as Descartes, Hobbes, Locke, Berkeley, Hume and Kant. Prerequisite: PHIL 210 or 220.

## PHIL 371 19th Century Philosophy

 5Readings from source material of the 19th century philosophers. Investigation of central topics, problems, and teachings of selected authors from Hegel to Nietzsche. Prerequisite: PHIL 210 or 220.

## PHIL 372 20th Century Philosophy

5
Readings from source materials of 20th century philosophers in the Anglo-American and/ or continental traditions, such as Bergson, Whitehead, Russell, Wittgenstein, James Dewey, Husserl, Heidegger, and Sartre.

| PHIL 391 | Special Topics | 1 to 5 |
| :--- | :--- | ---: |
| PHIL 392 | Special Topics | 1 to 5 |
| PHIL 393 | Special Topics | 1 to 5 |
| PHIL 403 | God and Philosophy | 5 |

An examination of the existence, nature, and importance of God. Topics to be included: arguments for God's existence, the problem of human suffering, the issue of atheism and nature of faith. Prerequisite: PHIL 210 or 220.

## PHIL 436 The Philosophy and History of Science 5

Philosophical reflection on the nature of science. Possible topics include theory and observation/experiment; confirmation and refutation; objectivity and truth; realism; science and common sense; science and religion. Prerequisite: PHIL 210 or 220

## PHIL 439 Ethical Theory I: History of Ethics <br> 5

A survey and comparison of classical texts on ethical theory, (e.g., Aristotle, Aquinas, Mill, and Kant). Prerequisite: PHIL 210 or 220.
PHIL 441 Greek Philosophy: Plato/Aristotle 5
A seminar study of the ancient Greek philosophical experience, with particular focus on the works of Plato and Aristotle. Prerequisite: PHIL 210 or 220.

A seminar study of the Christian philosophies of St. Augustine and St. Thomas Aquinas. Prerequisite: PHIL 210 or 220.

PHIL 443 German Idealism 5
Seminar study of major 18th and 19th century figures as Kant, Fichte, Schelling, and Hegel. Prerequisite: PHIL 210 or 220.

## PHIL 449 Major Figures in the Traditions 5

Intensive, seminar examination of the work of a major philosopher. Prerequisite: PHIL 210 or 220.

## PHIL 461 Symbolic Logic 5

Introduction to symbolic or mathematical logic from both an intuitive and formal standpoint. Elementary calculus of classes and relations and introduction to axiomatic set theory and Boolean algebra. (formerly PHIL 261.)
PHIL 465 Issues in Contemporary Philosophy 5
A selected examination of some of the current debates within philosophy, e.g., modernity vs. post-modernity, relation between theory and practice, the place of reason in contemporary life. Previously PHIL 341. Prerequisite: PHIL 210 or 220.

## PHIL 480 <br> Interdisciplinary Core Course <br> 3 to 5

Title and content may change each term. Prerequisite: PHIL 210 or 220.
PHIL $490 \quad$ Senior Synthesis 3 to 5
PHIL 491 Special Topics 1 to 5
PHIL 492 Special Topics 1 to 5
PHIL 493 Special Topics 1 to 5
PHIL 496 Independent Study 1 to 5
PHIL 497 Directed Reading 1 to 5
PHIL 498 Directed Research 1 to 5
PHIL 499 Senior Thesis 1 to 5
Original philosophical investigation under the direction of a faculty member appointed by the chairperson of the department. Prerequisite: senior status.

# Political Science/Public Administration 

James B. Hogan, PhD, Chair

## Objectives

Politics is essential to the human condition. It is expressed in patterns of influence among individuals, in the actions of states in world affairs, and in collective efforts to achieve our most noble goals. The political science curriculum links moral issues to empirical analytic questions of political life and explores the realities of political behavior at local, state, national, and international levels. A political science major helps students prepare for careers in government, business, and education, and for graduate study or law school.

## Degrees Offered

Bachelor of Arts
Bachelor of Public Administration

## Majors Offered

Political Science
Public Administration

## Minors Offered

Political Science
Public Program Management
Note: The Institute of Public Service offers two graduate degrees: Master of Public Administration and Master of Not-for-Profit Leadership. See the Graduate Bulletin of Information.

## General Program Requirements

Students in political science and public administration must satisfy the university core curriculum requirements as given in this bulletin, and must complete the general program requirements of the College of Arts and Sciences. Macro-economics is required as partial fulfillment of the social science core. Political science majors are strongly encouraged to take additional courses in history, economics, and languages. Advisers may recommend electives in business, sociology, philosophy, and writing. Students who plan to attend law school should consult the prelaw section of this bulletin and see a prelaw adviser.

## Teacher Education

The teacher preparation program is a graduate-level program only. Students interested in teaching should contact the Master in Teaching program at (206) 296-5759 to be assigned an adviser to ensure that they meet state requirements for an academic program as well as the specific requirements for MIT admission.

## Bachelor of Arts <br> Major in Political Science

In order to earn the bachelor of arts degree with a major in political science, students must complete a minimum of 180 credits with a cumulative grade point average of 2.0 and major/ program grade point average of 2.5 , including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST 120 Origins of Western Civilization ..... 5
ENGL 120 Masterpieces of Literature ..... 5
MATH $\quad 107$ or 110 or above ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I (not economics or political science) ..... 5
Social Science II (ECON 271 required) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis filled by designated PLSC course
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Foreign Language $115,125,135$, or equivalent ..... 15
Please Note: All students with a major in the College of Arts and Sciences must demonstrate competency in a foreign language through the 135 level. This competency is ordinarily achieved by successful completion of the three-course sequence: 115,125 , and 135 . Because these courses are a college requirement, no courses in the sequence may be taken on a pass/ fail, correspondence, or audit basis. Placement into other than the beginning course of the sequence is achieved by acceptable performance on the Foreign Language Competency Examination. See the Foreign Language Department for details on the examinations.
Choose one of the following two courses: ..... 5
HIST 121 Studies in Modern Civilization
HIST 231 Survey of the United States
III. Major Requirements
Sixty credits in political science, including:
PLSC 205 Introduction to American Politics ..... 5
PLSC 231 Diversity and Change ..... 5
PLSC 253 Introduction to Political Theory ..... 5
PLSC 260 Introduction to Global Politics ..... 5
Administration and Law (PLSC 280, 321, 322, 378, 379, 490) ..... 5
American Politics (PLSC 300, 301, 302, 303, 304, 305, 306, 307, 309, 410) ..... 5
Comparative Politics (PLSC 331, 332, 338, 339, 367, 432) ..... 5
International Politics (PLSC 362, 367, 461, 464) ..... 5
Political Theory (PLSC 352, 355, 356, 459) ..... 5
PLSC Electives ..... 15
Please Note: 1. Transfer students are required to take at least one course at Seattle University from each of the five fields: Administration and Law, American Politics, Comparative Politics, International Politics, and Political Theory. 2. Several PLSC courses have been identified as satisfying the senior synthesis and the core interdisciplinary requirements. Those courses may be used to fill major requirements or major electives while also fulfilling university core requirements. The credit for each course completed is included in totals only once.

## Minor in Political Science

In order to earn a minor in political science, students must complete 30 credits in political science, including:
Choose three from the following four courses: ............................................................. 15
PLSC 205 Introduction to American Politics
PLSC 231 Diversity and Change
PLSC 253 Introduction to Political Theory
PLSC 260 Introduction to Global Politics
PLSC Electives .......................................................................................... 15
See policy for minors on p. 43.

## Public Administration

The bachelor of public administration (BPA) degree provides a broad understanding of how public business is transacted in both government service and private non-profit organizations. The curriculum blends liberal education with preprofessional training in public management and the analysis of public policy. Theory and practice are combined in course work and internship opportunities.

## Bachelor of Public Administration Major in Public Administration

In order to earn the bachelor of public administration degree, students must complete a minimum of 180 credits with a cumulative grade point average of 2.0 and a major/program grade point average of 2.5 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English .............................................................................. 5
PHIL 110 Introduction to Philosophy and Critical Thinking ............................... 5
HIST 120 Origin of Western Civilization ........................................................... 5
ENGL 120 Masterpieces of Literature ................................................................. 5
MATH 107 or 110 or above ......................................................................... 5
Lab Science .......................................................................................................... 5
FINR 120 or approved fine arts alternate ........................................................... 5
PHIL 220 Philosophy of the Human Person ....................................................... 5
Social Science I (not economics or political science) ............................................. 5
Social Science II (ECON 271 required) ..................................................................... 5
Theology and Religious Studies Phase II (200-299) ................................................ 5
Ethics (upper division) ............................................................................................ 5
Theology and Religious Studies Phase III (300-399) .............................................. 5
Interdisciplinary ............................................................................................... 3 to 5
Senior Synthesis satisfied by PLSC 490
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Foreign Language $115,125,135$, or equivalent ..... 15

Please Note: All students with a major in the College of Arts and Sciences must demonstrate competency in a foreign language through the 135 level. This competency is ordinarily
achieved by successful completion of the three-course sequence: 115,125 , and 135 . Becausethese courses are a college requirement, no courses in the sequence may be taken on a pass/fail, correspondence, or audit basis. Placement into other than the beginning course of thesequence is achieved by acceptable performance on the Foreign Language CompetencyExamination. See the Foreign Language Department for details on the examinations.
Choose one of the following two courses: ..... 5
HIST 121 Studies in Modern Civilization
HIST 231 Survey of the United States
III. Major Requirements
Fifty-five credits, including:
PLSC 205 Introduction to American Politics ..... 5
PLSC 280 Principles of Public Administration ..... 5
PLSC 305 The Policy Process ..... 5
PLSC 309 Local and State Politics ..... 5
PLSC 378 Planning, Budgeting, and Information Systems ..... 5
PLSC 379 Public Sector Analysis ..... 5
PLSC 382 Research Methods ..... 5
PLSC 485 Leadership in the Public Sector (Senior Synthesis) ..... 5
PLSC 495 Internship ..... 5
Choose one of the following two courses: ..... 5
MGMT 380 Principles of Management
CMJR 383 Organizational Communication
Additional Requirements:
CSSE 103 Introduction to Computers and Applications ..... 5
Minor in Public Program Management
In order to earn a minor in public program management, students must complete
30 credits, including:
PLSC 280 Principles of Public Administration ..... 5
PLSC 378 Planning, Budgeting, and Information Systems ..... 5
PLSC 379 Public Sector Analysis ..... 5
PLSC 382 Research Methods ..... 5
PLSC 485 Leadership in the Public Sector ..... 5
Choose one of the following two courses: ..... 5
MGMT 380 Principles of Management
CMJR 383 Organizational Communication
Prerequisite for minor: ..... 5
CSSE 103 Introduction to Computers and Applications, or equivalent required.
See policy for minors on p. 43.

## Political Science Courses

Courses that fulfill field requirements for the political science major are designated by the following code:

AL Administration and Law
A American Politics
C Comparative Politics
I International Politics
T Political Theory

## PLSC 120 Citizenship <br> 5

Exploration of the theory and practice of democratic citizenship. Through a concentration of classroom learning and experiential service learning, consideration of questions such as the following: What does it mean to be a citizen in a democratic political community? What are the rights and responsibilities of democratic citizens in relation to one another, to the community as a whole, and to other communities? What are the implications of issues of race, class, and gender for the theory and practice of democratic citizenship?

## PLSC 205 Introduction to American Politics <br> 5

Constitutional and historical foundations of the federal government. Processes and structures of American politics from conservative, radical, and reformist perspectives. Power, class, and culture as elements affecting citizen participation and as shapers of economic and social policy.
PLSC 231 Diversity and Change 5
Political diversity among contemporary nations. Methods of comparison. Testing theories of change in political economy and political sociology. Examples from capitalist, socialist, and developing nations.

## PLSC 253 Introduction to Political Theory 5

Tenets and historical development of modern political ideologies, with a focus on liberalism, conservatism, and democratic socialism. Theoretical and philosophical questions, such as political obligation and justice.

## PLSC 260 Introduction to Global Politics 5

Analysis of the international system, including balance of power theory, theories of international cooperation, and of global peace and justice. Major themes include war, nationalism, the global economy, the European Community, interventionism, and the new world order.

## PLSC $280 \quad$ Principles of Public Administration 5

Tour of the multi-disciplinary nature of public administration. Role of public organizations in the American polity at the federal, state, and local levels. Constitutional definition of administration. Exposure to daily workings of public agencies. Role of independent sector organizations. AL

## PLSC 300 Environmental Politics

Current issues in environmental stewardship facing the human race. The political process as a means of environmental protection at the local, national, and global levels of government. A

## PLSC 301 The President and Congress

The constitutional basis of divided government in the United States. Examiniation of the powers of the President and Congress. The President as a builder of national consensus. A

PLSC 302 Politics of American Competitiveness 5
Productivity, distribution, investment, technology, and trade characteristics of the U.S. econonomy. Comparison with Japan and Europe. Consideration of the role of government; ethical and moral dimensions. Core interdisciplinary option. A, I
PLSC 303 Black Power in American Society 5
Social and political aspects of African American history; the "Jim Crow" system; golden years of the Civil Rights movement; the race-neutral period of the 1990s. Core interdisciplinary option. A

## PLSC 304 Interests, Parties, and Elections 5

Popular participation, group influence, party organization, and electoral choice in the American political system. A
PLSC 305 The Policy Process 5
How public policies are enacted and implemented in the U.S. Constitutional, political, ideological, and socio-economic constraints on policy makers. The relationship between economic structure and the substance of public policy. A

## PLSC 306 Native American Politics <br> 5

Native American culture and politics. An examination of four centuries of political interactions between Native Americans and European Americans using the techniques of film criticism, literary analysis, ecological science, anthropology, history, economics, and political science. Core interdisciplinary option. A

## PLSC $307 \quad$ Politics and the Media

5
Role of media in contemporary U.S. politics. Interactions and First Amendment tensions among political and media players in governance, elections, investigative reporting, and political advertising. Ethical issues in media and the political process. A

## PLSC 309 Local and State Politics

5
Examination of structures and functions of political institutions at local, state, county, and special district levels, especially legislative, executive, and judicial systems. A

## PLSC 321 Constitutional Law I: Structure and Process 5

 Growth, philosophy, and development of the United States Constitution as reflected in decisions of the Supreme Court with emphasis on the role of the court in contemporary America. ALPLSC 322 Constitutional Law II: Civil Liberties 5
Interpretation of the Bill of Rights by the Supreme Court and the impact on the individual and the states. AL
PLSC 331 German Politics and Society 5
Post-war division and re-unification. Impacts on current political culture, social segments, regional diversity, interest groups, and government structures. Germany as the fulcrum of European integration. C
PLSC 332 Politics of Japan 5
Political power structures as agents of Japan's social and economic transformation. The decline of consensus, and the rise of pressures for political and economic reform. United States links to our second largest trading partner. C

## PLSC 338 African Politics

Political order, state-building, and economic development in Sub-Saharan Black Africa. Theories of comparative social, economic, and political change. Historical and contemporary causes of famine, civil war, debt, United States and other great power influence, and revolution in South Africa. C

## PLSC 339 The Politics of Gender 5

How politics is gendered. Patriarchy, when and how women are included in politics, in what ways its makes a difference. Public policy issues of employment, sexuality, and violence against women. C

## PLSC 352 Modern Political Thought <br> 5

Foundations of modern Western political thought, from the Renaissance to the French Revolution. T

## PLSC 355 Contemporary Political Thought <br> 5

Issues in modern and postmodern thought. Marxism and critical theory, Freud and modern identity, hermeneutics, poststructuralism, and feminism.T
PLSC 356 American Political Thought 5
Survey of American political thought, with special focus on the critical debates which marked turning points in our nation's history. T

## PLSC 362 World Order 5

How states cooperate to form treaties, institutions, and informal agreements. The United Nations and its specialized agencies, GATT, IMF, the World Bank, UNEP, and the Law of the Sea. Theories of institutionalization, integration, regimes, and interdependence. I

## PLSC 367 Third World Politics

5
Changing politics of Asia, Africa, Latin America, and the Middle East. Political order and state expansion; political participation and the growth of democracy; economic growth; politics of income distribution and social equity. Core interdisciplinary option. C, I

## PLSC 378 Planning, Budgeting, and Information Systems

Characteristics of the control structure in public and non-profit organizations, including financial reporting, output measurement, programming, budget preparation, performance monitoring, and evaluation. AL

## PLSC $379 \quad$ Public Sector Analysis

Economic theory of public and non-profit organizations, including demand, production, and cost. Introduction to externalities, public goods, collective decision making, taxation, present value, and discounting. AL

## PLSC 382 Research Methods

 5Social science techniques in defining and executing public policy evaluation. Research design, data acquisition, basic quantitative skills, modes of effective research presentation.
PLSC 391 Special Topics 1 to 5
PLSC 392 Special Topics 1 to 5
PLSC 393 Special Topics 1 to 5
PLSC $410 \quad$ Urban Politics and Public Policy 5
Problems of large American cities with special emphasis on transportation, housing, public safety, and planning. Fiscal problems of American cities; public school politics. A

## PLSC $432 \quad$ Welfare States

 5Culture and politics of social planning in Sweden, Germany, Britain, United States, and Canada. Contrasting approaches to income distribution, health care, education, and public assistance. Normative and empirical methods in empirical research. C

## PLSC 459 Topics in Political Philosophy

 5In-depth analysis of an issue, theorist, or debate of contemporary relevance, including theories of justice, the future of liberalism, and the interpretation of political language. T

## PLSC 461 United States Foreign Policy 5

The United States role in the international system. The sources of American foreign policy commitments in history, culture, social and economic conditions, and the process of government. Focus on United States relations with the republics of the former Soviet Union, the Third World, and Europe. I
PLSC 464 European Union 5
The EU's myriad institutions regulate business activity in fifteen nations, affect prosperity for 300 million people, and help shape the global economy. Member governments are transformed by their own creation, interest groups bridge national boundaries, economic and social rights are redefined, and a unique system of politics emerges. I
PLSC 480 The Human Prospect 5
An examination of the political implications of the dangers of nuclear war and ecological suicide. Emphasis on discovering political strategies for preventing a world cataclysm. Core interdisciplinary option.

## PLSC 490 Leadership in the Public Sector 5

Causes and consequences of short-term thinking in major public policies, including the environment, the economy, and education. Developing an ethical vision and implementing leadership strategies for the future. Senior synthesis. AL

## PLSC 495 Internship <br> 1 to 15

On-the-job experience with appropriate governmental or non-profit agency. Students may register for no more than 15 total intern credits (consult with intern coordinator). Mandatory CR/F.
PLSC 491 Special Topics 1 to 5
PLSC 492 Special Topics 1 to 5
PLSC 493 Special Topics 1 to 5
PLSC 496 Independent Study 1 to 5
PLSC 497 Directed Reading 1 to 5
PLSC 498 Directed Research 1 to 5

## Prelaw

David W. Arnesen, JD, Adviser
Erik Olsen, PhD, Adviser

## Program

The best preparation and a requirement for entrance to many law schools is the completion of a four-year bachelor's degree.

In advising prelaw students, Seattle University follows the recommendations of the Association of American Law Schools. These stress comprehension and expression in words, critical understanding of institutions and values with which the law deals, and creative power in thinking. These capacities may be developed through study in any of a number of departmental majors.

Entering students interested in law must declare a major in the field in which they are most interested and for which they are best suited. Those unable to make such a determination upon entrance will be enrolled in the liberal studies program. The program of study of each prelaw student must be approved by the departmental adviser, and the prelaw adviser should be consulted quarterly. During their junior year, students must acquaint themselves with the entrance requirements of the law school they plan to attend and make arrangements to take the Law School Aptitude Test (LSAT). The application form and the instruction booklet for this test may be obtained from the political science prelaw adviser.

## Pre-Graduate Advising Program

Gerald Cobb, SJ, PhD, Adviser
Arthur Fisher, PhD, Adviser

## Program

Seattle University offers assistance to prospective graduate students in six areas: 1. selecting graduate programs; 2. preparing for the Graduate Record Examination (GRE); 3. crafting application essays; 4. preparing writing samples; 5 . requesting letters of recommendation; and 6. obtaining financial aid. The program sponsors a public presentation every quarter and provides individual assistance. For a schedule of events and individual assistance, please contact an adviser named above.

This program also helps qualified students compete for several national and international graduate scholarships, such as the Rhodes, Marshall, Luce, Rotary, and Mellon (contact person: Jerry Cobb, SJ, PhD). National Science Foundation scholarships (contact person: David Thorsell), Fulbright (contact person: James Stark, PhD., Edwin Weihe PhD, and Paul Milan, PhD), and the Truman Scholarship (David Leigh, SJ, PhD) For information about these scholarships and eligibility requirements, contact the persons named.

## Premajor Program

Betsey Barker Klein, MA, Director

## Objectives

The College of Arts and Sciences recognizes that many students come to Seattle University wishing to explore academic programs and careers before committing themselves to a major program. The premajor is intended to provide freshmen and sophomores with this opportunity while assuring they are well prepared for whatever direction they choose. Each student is assigned an adviser who not only assists in arranging the student's program, but will aid in the process of making an academic and career decision.

## General Program Requirements

The premajor program is for freshmen and sophomores only. Students must enroll in the core courses of phase I and phase II appropriate to their academic level. Students may apply for admittance into a major or professional school at any time in their freshman or sophomore year, but must do so prior to the attainment of junior status.

## Psychology

Kevin Krycka, PsyD, Chair

## Objectives

The specific and unique role of the Psychology Department is to provide a knowledge of psychology as a human science and as a natural science, both founded on a solid philosophical reflection on values of the human person. The curriculum is designed for students who plan to work as professional psychologists and thus need a sound preparation for graduate study; for students who plan a career in any field dealing primarily with people, such as nursing, teaching, social work, guidance, and human resources; or for those who desire a well-rounded education and thus need a basic knowledge and understanding of human experience and behavior.

## Degrees Offered

Bachelor of Arts
Bachelor of Science
Master of Arts in Psychology (See the Graduate Bulletin of Information)

## Major Offered

Psychology
Psychology with a Specialty in Addiction Studies

## Minor Offered

Psychology

## General Program Requirements

Entry into the psychology major requires a 2.75 grade point average for incoming freshmen and a 2.75 grade point average for transfer students.

Psychology majors may choose any minor. For social work, the recommended curriculum is a major in psychology and a minor in sociology. Premedical students may take a bachelor of science in psychology. Psychology majors may not register for P/F in the courses listed under departmental requirements. They must obtain a minimum grade of C in the required courses, PSYC $120,301,303,304,305,306$, and 489 in the bachelor of arts program. In the bachelor of science program, those courses plus $330 / 316,403 / 405$, and $404 / 440$ must be graded C or higher. Psychology majors must complete at least 30 credits in the major at Seattle University.

The psychology major may be combined with a specialty in addiction studies (see addiction studies section of this bulletin). Students taking this specialty may count ADST 480 and ADST 402 towards their psychology requirements.

A psychology major cannot count more than 10 credits in independent study toward the 50 credits required for the major.

## Teacher Education

The teacher preparation program is a graduate-level program only. Students planning to become elementary teachers or secondary psychology or social studies teachers must complete a bachelor's degree prior to beginning the teacher preparation program. They should contact the Master in Teaching program (206) 296-5759, to ensure that they meet state requirements for an academic program as well as requirements for MIT admission.

## Bachelor of Arts Major in Psychology

In order to earn the bachelor of arts degree with a major in psychology, students must complete a minimum of 180 credits with a cumulative grade point average of 2.0 and major/program grade point average of 2.5 , including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST 120 Origins of Western Civilization ..... 5
ENGL 120 Masterpieces of Literature ..... 5
MATH $\quad 107$ or 110 or above ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I (not psychology) ..... 5
Social Science II (not psychology, and different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis satisfied by PSYC 489
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Foreign Language $115,125,135$, or equivalent ..... 15
Please Note: All students with a major in the College of Arts and Sciences must demonstrate competency in a foreign language through the 135 level. This competency is ordinarily achieved by successful completion of the three-course sequence: 115,125 , and 135 . Because these courses are a college requirement, no course in the sequence may be taken on a pass/fail, correspondence, or audit basis. Placement into other than the beginning course of the sequence is achieved by acceptable performance on the Foreign Language Competency Examination. See the Foreign Language Department for details on the examinations.
Choose one of the following two courses: ..... 5
HIST 121 Studies in Modern Civilization
HIST 231 Survey of the United States
III. Major Requirements
Fifty credits in psychology, including:
PSYC 120 Introductory Psychology* ..... 5
PSYC 301 History and Schools of Psychology* ..... 5
PSYC 303 Statistics and Research Methods* ..... 4
PSYC 304 Lab for Statistics and Research Methods* .....
PSYC 305 Statistics and Research Methods: Applied* ..... 4
PSYC 306 Lab for Statistics and Research Methods: Applied* .....
PSYC 489 Senior Seminar* ..... 5
PSYC Electives ..... 25

Please Note: 1. *Must be graded C (2.0), or better. 2. No more than 10 credits of independent study are permitted.
Bachelor of Arts Major in Psychology with Specialization in Addiction Studies
In order to earn the bachelor of arts degree with a major in psychology with a specializationin addiction studies, students must complete a minimum of 180 quarter credits, with acumulative grade point average of 2.0 and a major/program grade point average of 2.5 ,including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST 120 Origins of Western Civilization ..... 5
ENGL 120 Masterpieces of Literature ..... 5
MATH 107 or 110 or above ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I (not psychology) ..... 5
Social Science II (not psychology and different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary (ADST/PSYC 480 allowed) ..... 3 to 5
Senior Synthesis filled by PSYC 489
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Foreign Language $115,125,135$, or equivalent ..... 15
Please Note: All students with a major in the College of Arts and Sciences must demonstrate competency in a foreign language through the 135 level. This competency is ordinarily achieved by successful completion of the three-course sequence: 115,125 and 135 . Because these courses are a college requirement, no course in the sequence may be taken on a pass/ fail, correspondence, or audit basis. Placement into other than the beginning course of the sequence is achieved by acceptable performance on the Foreign Language Competency Examination. See the Foreign Language Department for details on the examinations.
Choose one of the following two courses: ..... 5
HIST 121 Studies in Modern Civilization
HIST 231 Survey of the United States
III. Major Requirements
Fifty credits in psychology, including:
PSYC 120 Introductory Psychology* ..... 5
PSYC 301 History and Schools of Psychology* ..... 5
PSYC 303 Statistics and Research Methods* ..... 4
PSYC 304 Lab for Statistics and Research Methods* ..... 1
PSYC 305 Statistics and Research Methods: Applied* ..... 4
PSYC 306 Lab for Statistics and Research Methods: Applied* ..... 1
ADST 402 Counseling-Alcohol and Drugs* ..... 3
PSYC 480 or ADST 480 Introduction to Alcohol and Drug Addiction ..... 3
PSYC 489 Senior Seminar* ..... 5
PSYC Electives ..... 19
IV. Other Major Program Requirements
ADST 405 Addiction: Law and Public Policy ..... 2
ADST 407 Field Experience ..... 3
ADST 412 Group Process in Treatment ..... 3
ADST 414 Case Management and Record Keeping ..... 3
ADST 418 Addiction and the Family ..... 3
ADST 428 Ethics for Addiction Professionals ..... 3
ADST 429 Pharmacology of Alcohol and Drugs ..... 3
Please Note: 1. *Must be graded C (2.0), or better. 2. No more than 10 credits of independentstudy are permitted.
Bachelor of Science Major in PsychologyIn order to earn the bachelor of science degree with a major in psychology, students mustcomplete a minimum of 180 credits with a cumulative and major/program grade pointaverage of 2.5 , including the following:
I. Core Curriculum Requirements
engl 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST 120 Origins of Western Civilization ..... 5
ENGL 120 Masterpieces of Literature ..... 5
MATH $\quad 107$ or 110 or above ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I (not psychology) ..... 5
Social Science II (not psychology and different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) .....  5
Interdisciplinary ..... 3 to 5
Senior Synthesis filled by PSYC 489
See detailed core curriculum information in this bulletin
II. College of Arts and Sciences Requirements
Foreign Language $115,125,135$, or equivalent ..... 15Please Note: All students with a major in the College of Arts and Sciences must demonstratecompetency in a foreign language through the 135 level. This competency is ordinarilyachieved by successful completion of the three-course sequence: 115,125 , and 135 . Becausethese courses are a college requirement, no course in the sequence may be taken on a pass/fail, correspondence, or audit basis. Placement into other than the beginning course of the
sequence is achieved by acceptable performance on the Foreign Language CompetencyExamination. See the Foreign Language Department for details on the examinations.
Choose one of the following two courses: ..... 5
HIST 121 Studies in Modern CivilizationHIST 231 Survey of the United States
III. Major Requirements
Fifty credits in psychology, including:
PSYC 120 Introductory Psychology* ..... 5
PSYC 301 History and Schools of Psychology* ..... 5
PSYC 303 Statistics and Research Methods* ..... 4
PSYC 304 Lab for Statistics and Research Methods* ..... 1
PSYC 305 Statistics and Research Methods: Applied* ..... 4
PSYC 306 Lab for Statistics and Research Methods: Applied* ..... 1
PSYC 489 Senior Seminar* ..... 5
PSYC Electives ..... 10
Choose one of the following two courses: ..... 5
PSYC 330 Physiological Psychology*
PSYC 316 Health Psychology*
Choose one of the following two courses: ..... 5
PSYC 403 Advanced Statistics*
PSYC 405 Advanced Experimental Design*
Choose one of the following two courses: ..... 5
PSYC 404 Psychology of Learning*PSYC 440 Cognitive Psychology*
IV. Other Major Department Requirements
Mathematics and physical science electives (includes any mathematics or laboratory science course) ..... 40
Please Note: 1.* Must be graded C (2.0), or better. 2. No more than 10 credits of independent study are permitted.

## Minor in Psychology

In order to earn a minor in psychology, students must earn 30 credits of psychology, including:
PSYC 120 Introductory Psychology ..... 5
PSYC Electives ..... 25
Please Note: Only five credits of independent study are permitted.
See information for minors on p .43.

## Psychology Courses

## PSYC 120 Introductory Psychology

General introduction to the modes of inquiry of scientific psychology, including its nature, scope, and method; organic, environmental, and personal factors that influence human experience and behavior. Correlates with PHIL 220.
PSYC 201
Statistics I
5
Basic descriptive and inferential statistics; central tendency, variability, correlation and regression, probability, z and t tests, one-way analysis or variance. Prerequisite: At least high school algebra. Not for psychology majors.

## PSYC $210 \quad$ Personality Adjustment

The normal personality; self-knowledge and self-actualization; personality adjustment problems; various inadequate reactions, escape and defense mechanisms; positive mental health.
PSYC 291 Special Topics 1 to 5

PSYC 292 Special Topics 1 to 5
PSYC 293 Special Topics 1 to 5
PSYC 301 History and Schools of Psychology 5
Survey of the history of psychology, including the classic periods of structuralism, functionalism, behaviorism, psychoanalytic schools, and Gestalt. Majors only. Prerequisite: PSYC 120. (fall, winter)

## PSYC 303 Statistics and Research Methods* 4

An introduction to methods of statistical analysis and the use of the natural sciences in the study of human experience and the study of human and animal behavior with an emphasis on the experimental method. Majors only. Corequisite: PSYC 304 (fall, winter)

## PSYC 304 Lab for Statistics and Research Methods* 1

Introduction to the application of computers and computer software in descriptive and inferential statistics. Topics will include the creation of data files, the use of statistical software for data and analysis, and the use of graphics software in reporting the results of statistical analysis. Majors only. Corequisite: PSYC 303 (fall, winter)

## PSYC 305 Statistics and Research Methods: Applied*

A continuation of the first course with a greater emphasis on inferential statistics and the application of the experimental method to areas of psychology such as psychophysics, perception, learning, and memory. Continued study and application of statistical software to the laboratory project. Majors only. Prerequisite: PSYC 303 and 304. Corequisite: PSYC 306 (winter, spring)

## PSYC 306 Lab for Statistics and Research Methods: Applied* $\quad 1$

The application of the correlational method and the experimental method in conducting psychological research. Topics will include within-subjects designs, between-subjects designs, and factorial designs. Students will design research projects, collect and analyze data, and prepare a written report following the format of the publication manual of the American Psychological Association. Majors only. Prerequisite: PSYC 303, PSYC 304. Corequisite: PSYC 305 (winter, spring).

* The four course, PSYC 303, 304, 305, and 306 are components of a single 10 -credit course. All must be completed to satisfy any requirement.


## PSYC 315 Abnormal Psychology <br> 5

Study of standard topics in abnormal psychology, such as diagnosis, treatment, and factors leading to psychological disturbance, as well as consideration of how one comes to a psychological understanding of disturbed, as well as "ordinary," human existence. One of the purposes of psychological interpretation of disturbed persons which is essential for genuine treatment is to uncover and reveal their basic humanness.

## PSYC 316 Health Psychology 5

An examination of the contributions of the methods of psychology and the application of psychological intervention and treatment of illness. The review of current research with respect to the identification of psychological correlates of health and illness. Prerequisite: PSYC 120

## PSYC $322 \quad$ Growth and Development 5

Life span development from infancy through childhood, adolescence, young adulthood, middle age, old age, and death and dying. Cognitive, personality, social, and emotional development. Optional field work placement in settings related to different age periods. Prerequisite: PSYC 120 or equivalent.

## PSYC $330 \quad$ Physiological Psychology 5

Biological basis of behavior, cerebrospinal, autonomic and sensory systems; endocrine glands, relation of the brain to behavior. Prerequisites: PSYC 120.

## PSYC $340 \quad$ Psychology of Gender 5

How gender shapes the lives of men and women, including human development, personality, cognition, achievement, and social behavior. Emphasis will be on the mechanisms through which gender has its effect, including possible effects of biology, learning, modeling, social roles, etc. Prerequisite: PSYC 120.

## PSYC $350 \quad$ Theories of Personality 5

Study of the assumptions, basic principles, and implications for psychotherapy and everyday life of selected personality theorists representing the psychoanalytic, social psychological, social learning, humanistic, and existential approaches to psychology. Prerequisite: third-year standing, and PSYC 120 or equivalent.

## PSYC $375 \quad$ Psychology of Death and Dying

 5Topics include the experience of dying, death anxiety, death denial, pain, near-death experiences, bereavement, disasters, rituals cross-culturally, funerals, the death of the child and the child's perception of death, and the relationship of death to life. Prerequisite: PSYC 120.

PSYC 391 Special Topics 1 to 5
PSYC 392
Special Topics
1 to 5
PSYC 393 Special Topics 1 to 5
PSYC 403
Advanced Statistics
Review of probability, correlational methods, and inferential statistics followed by factorial designs including repeated measures designs, analysis of covariance designs, multiple regression, factor analysis, multidimensional scaling, and other multivariate statistics. Prerequisites: PSYC 303, PSYC 304, PSYC 305, and PSYC 306.

## PSYC 404 Psychology of Learning <br> 5

Principles of classical conditioning; instrumental conditioning, reinforcement, punishment, and avoidance learning; generalization and discrimination, biological aspects of conditioning and learning; review of major learning theories; and application of learning principles in the management of animal and human behavior. Prerequisite: PSYC 120.

PSYC 405 Advanced Experimental Design 5
Students will develop independent skills in designing and conducting studies in psychology and in analyzing and interpreting data. Further development of abilities to read, write, and evaluate experimental articles. Training in advanced statistical software for the social sciences. Prerequisites: PSYC 303, PSYC 304, PSYC 305, and PSYC 306.
PSYC 427 Introduction to Counseling 5
Basic theory, principles and dynamics of the counselor-client relationship and the counseling process. Majors only. Prerequisite: PSYC 120.

## PSYC $440 \quad$ Cognitive Psychology

5Considers alternative models of how our mind works to receive, store, and process information. The relative strengths of those models in the light of existing data are evaluated. Topics include processes of attention, memory, reasoning and decision making, including the implications of those processes for issues in education, language, social interaction, risk assessment, etc. Prerequisite: PSYC 120.

## PSYC 461 Theory and Experience of Group Dynamics <br> 5

Basic theory and principles of group dynamics. Experience of group dynamics in a group focusing on the interpersonal, gives a foundatipn for understanding theory. Majors only.

PSYC 480 Introduction to Alcohol and Drug Addiction 3
Psychological, educational, physiological, social, industrial, psychiatric, therapeutic, and rehabilitation aspects of the problem of alcoholism. Satisfies interdisciplinary core requirement. Prerequisite: junior or senior standing in psychology, sociology, premedicine or nursing, or permission. (fall, winter, spring) Also offered as ADST 480. (formerly PSY 490)

## PSYC 481 Ecological Psychology

 5Learn about the planet we call earth and how we relate to it. Study ways we as individuals and systems shape what we see and how we live in the world. Look at how our attitudessocial and spiritual-and character influence and create the world in which we live. Satisfies a social science major requirement for the ecological studies major or a core interdisciplinary course.
PSYC 482 Psychology of Forgiveness 5
Explores various aspects of forgiveness as well as related phenomena such as injury, shame, guilt, blame, and revenge. Questions addressed include: what is the nature of this experience, how does one move towards it, what enables a person to forgive, and what are obstacles to forgiveness. Satisfies core interdisciplinary requirement.
PSYC $489 \quad$ Senior Seminar 5

Reading and discussion of current issues with respect to psychology as a mental health profession, and as a discipline with a particular content and diverse methodologies. Prerequisite for non-majors: permission. Majors only. Satisfies core senior sysnthesis. (formerly PSY 499)
PSYC 493 Special Topics in Psychology ..... 1 to 5
PSYC 496 Independent Study ..... 1 to 5
PSYC 497 Directed Reading ..... 1 to 5
PSYC 498 Directed Research ..... 1 to 5By arrangement. Prerequisite: permission.

## Sociology

Charles Lawrence, Ph.D., Chair

## Objectives

Sociologists are endlessly fascinated by the fundamental question: why do people do what they do? Sociologists describe and explain the ecological foundations of society, major institutions and the ways in which people interact, organize their lives together and bestow meaning on the world. In so doing we seek a wider cross-cultural and multi-cultural understanding, striving to make people's lives intelligible across the boundaries of culture, class, race, and gender.

Students are both supported and challenged to develop their abilities to apply the sociological perspective to the study of social life. In our respective disciplines of sociology, social work and anthropology, we seek to build a learning environment which will bring each student to a level of understanding and skill needed to apply that knowledge to furthering one's career and bettering one's life and society. We help prepare students for careers in human services, for graduate study in sociology, education and law. Internships match theory with practice by providing opportunities for on-the-job training.

We strive to help students make sense of their own lives and the world in which they live. We also want to empower them to see the possibilities and limits of social change and of service to others.

## Degree Offered

Bachelor of Arts

## Majors Offered

## Sociology

Applied Sociology/Social Work

## Minors Offered

## Sociology

Social Work

## Teacher Education

The teacher preparation program is a graduate-level program only. Those students planning to become elementary teachers or secondary sociology or social studies teachers should contact the Master in Teaching program at (206) 296-5759 to be assigned an adviser to ensure that they meet state requirements for an academic program as well as the specific requirements for MIT admission.

## Bachelor of Arts Major in Sociology

In order to earn any bachelor of arts degree with a major in sociology, students must complete a minimum of 180 credits with a cumulative grade point average of 2.0 and major/ program grade point average of 2.5 , including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST $120 \quad$ Origins of Western Civilization ..... 5
ENGL 120 Masterpieces of Literature ..... 5
MATH $\quad 107$ or 110 or above ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I (not sociology) ..... 5
Social Science II (not sociology and different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Foreign Language 115, 125, 135, or equivalent ..... 15
Please Note: All students with a major in the College of Arts and Sciences must demonstratecompetency in a foreign language through the 135 level. This competency is ordinarilyachieved by successful completion of the three-course sequence: 115,125 , and 135 . Becausethese courses are a college requirement, no course in the sequence may be taken on a pass/fail, correspondence, or audit basis. Placement into other than the beginning course of thesequence is achieved by acceptable performance on the Foreign Language CompetencyExamination. See the Foreign Language Department for details on the examinations.
Choose one of the following two courses: ..... 5
HIST 121 Studies in Modern Civilization
HIST 231 Survey of the United States
III. Major Requirements
Fifty-five credits in sociology, social work, and anthropology, including:
SOCL 301 Approaches to Sociological Reasoning ..... 5
SOCL 302 Sociological Methods (Prerequisite SOCL 301) ..... 5
SOCL 402 Sociological Theory (Prerequisites SOCL 301, SOCL 302) ..... 5
Area I - Power and Stratification
Choose one from the following three courses: ..... 5
SOCL 316 Social Inequality
SOCL 317 Race and Ethnicity
SOCL 318 Gender and Sexuality
Area II - Self and Society
Choose one from the following three courses: ..... 5
SOCL 222 Social Psychology
SOCL 321 Socialization through the Life-CycleANTH 323 Culture and Personality
Choose electives from SOCL, SOCW and ANTH courses. ..... 30
Please Note: 1. A minimum of 30 upper-division credits in sociology, social work, andanthropology will be required for graduation. 2. Transfer students must complete a minimumof 25 credits in sociology, social work, and/or anthropology at Seattle University. 3. Studentsare restricted to no more than one program from the sociology department. They may choosea major or a minor or a second degree from either sociology or from applied sociology/socialwork offerings. For example, students may not major in sociology/social work and minor insociology.
Bachelor of Arts
Major in Applied Sociology/Social Work
In order to earn the bachelor of arts degree with a major in applied sociology/social work,students must complete a minimum of 180 credits with a cumulative grade point averageof 2.0 and major/program grade point average of 2.5 , including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
HIST 120 Origins of Western Civilization ..... 5
ENGL 120 Masterpieces of Literature ..... 5
MATH $\quad 107$ or 110 or above ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I (not sociology) ..... 5
Social Science II (not sociology and different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Foreign Language 115, 125, 135, or equivalent ..... 15
Please Note: All students with a major in the College of Arts and Sciences must demonstratecompetency in a foreign language through the 135 level. This competency is ordinarilyachieved by successful completion of the three-course sequence: 115,125 , and 135 . Becausethese courses are a college requirement, no course in the sequence may be taken on a pass/fail, correspondence, or audit basis. Placement into other than the beginning course of thesequence is achieved by acceptable performance on the Foreign Language CompetencyExamination. See the Foreign Language Department for details on the examinations.
Choose one of the following two courses: ..... 5
HIST 121 Studies in Modern Civilization
HIST 231 Survey of the United States
III. Major Requirements
Fifty-five credits in sociology, social work, and anthropology, including:
SOCL 301 Approaches to Sociological Reasoning ..... 5
SOCL 302 Sociological Methods (Prerequisite SOCL 301) ..... 5
SOCL 402 Sociological Theory (Prerequisites SOCL 301, SOCL 302) ..... 5
Area I - Power and Stratification
Choose one from the following three courses: ..... 5
SOCL 316 Class and Inequality
SOCL 317 Race and Ethnicity
SOCL 318 Gender and Sexuality
Area II - Self and Society
Choose one from the following three courses: ..... 5
SOCL 222 Social Psychology
SOCL 321 Socialization Across the Life-CycleANTH 323 Culture and Personality
SOCW 250 Introduction to Social Work ..... 5
SOCW 354 The Helping Process ..... 5
SOCW 450 Welfare Policy and Community Change ..... 5
SOCW 470 Field Experience ..... 5
Choose electives from SOCL, SOCW, and ANTH courses ..... 10
Please Note: 1. Admission to the social work program requires permission from the socialwork admissions committee. 2. A minimum of 30 upper division credits in sociology, socialwork, and anthropology will be required for graduation. 3 . Transfer students must completea minimum of 25 credits in sociology, social work, and/or anthropology at Seattle University.4. Students are restricted to no more than one program from the sociology department. Theymay choose a major or a minor or a second degree from either sociology or from appliedsociology/social work offerings. For example, students may not major in sociology/social workand minor in sociology.
Minor in SociologyIn order to earn a minor in sociology, students must complete 30 credits in sociology,social work, and anthropology including:
SOCL 301 Approaches to Sociological Reasoning ..... 5
Choose one of the following two courses: ..... 5
SOCL 302 Sociological MethodsSOCL 402 Sociological Theory
Area I - Power and Stratification
Choose one from the following three courses: ..... 5SOCL 316 Class and Inequality
SOCL 317 Race and Ethnicity
SOCL 318 Gender and Sexuality
Area II - Self and Society
Choose one from the following three courses: ..... 5
SOCL 222 Social PsychologySOCL 321 Socialization Across the Life-CycleANTH 323 Culture and Personality
Choose electives from SOCL, SOCW and ANTH courses: ..... 10
Please Note: Transfer students must take at least 15 upper-division ANTH, SOCL, or SOCWcredits at Seattle University for the minor. See policy for minors on p. 43.
Minor in Social WorkIn order to earn a minor in social work students must complete 30 credits in social work,sociology, and anthropology, including:SOCL 120 Introduction to Sociology.5
Area II - Self and Society
Choose one from the following three courses: ..... 5
SOCL 222 Social Psychology
SOCL 321 Socialization Across the Life Cycle
ANTH 323 Culture and Personality
SOCW 250 Introduction to Social Work ..... 5
SOCW 450 Welfare Policy and Community Change ..... 5
Choose two from the following eight courses: ..... 10
SOCL 219 Deviance and Social Control
SOCL 316 Class and Inequality
SOCL 354 Helping Process
SOCL 368 Social Work with Families
SOCW 452 Social Work with Children
SOCW 456 Social Work with Adults and Aged
CRJS 303 Juvenile Justice
PLSC 378 Planning, Budgeting and Information
Please Note: Transfer students must take at least 15 upper-division ANTH, SOCL, or SOCW credits at Seattle University for the minor. See policy for minors on p. 43.

## Sociology Courses

## SOCL 120 Introductory Sociology

A description of the science of sociology; an analysis of interpersonal relations, of associations and social institutions, and the way these affect one another and are affected by culture. Correlates with PHIL 220.

## SOCL 202 Human Ecology and Geography

Examination of basic human responses to nature. 1. Population dynamics, settlement patterns, resource usage, environmental impacts, and the relation of these to ecological processes; 2. Geographical locations and spatial distribution of human activities in terms of natural and cultural regions. The significance of place; special focus on Pacific Northwest.

Who determines when a social issue becomes defined as a "social problem"? What are the links between public issues and personal problems? We will investigate the nature and roots of such problems as poverty, homelessness, violence, family breakdown and changing sex roles in America today. To better understand why problems persist over time, and to consider possible solutions. We will meet with human services professionals in the Seattle community.

## SOCL 210 American Society and Culture <br> 5

Exploration of the basic institutions and social structure of America. Analysis of main patterns and trends since WWII in population, environment, technology, economy, politics, family, and class, interpreted as a transformation to a post-industrial society. Reflection on origin and nature of American values and character structure (esp. Weber); problems and future prospects.

## SOCL 215 Family and Kinship

Analysis of the nature of family systems. Kinship as the primordial social bond, and the evolution of families in relation to changes in the larger social structure. Contemporary family types, dynamics, development, policy; changes in contemporary family and kinship relations.

## SOCL 219 Deviance and Social Control

Analysis of the nature and dynamics, norms and values, deviance and sanctions, and modes of social control. Theories of causes of deviant behavior, types of deviance, processes of becoming deviant, stigmatization; deviant groups and subcultures, deviance and race, ethnicity, gender, and class differences; deviance, innovation, and social change (formerly SC 319). Also offered as CRJS 200.

## SOCL 222 Social Psychology

5Inquiry into fundamental relations between the individual and society. Theoretical perspectives on interaction and communication, formation of personal identity through identification with models, internal organization of self, formation and changes of perceptions, attitudes, beliefs, and behavior; small-group dynamics, collective behavior.

| SOCL 291 | Special Topics | 1 to 5 |
| :--- | :--- | :--- |
| SOCL 292 | Special Topics | 1 to 5 |
| SOCL 293 | Special Topics | 1 to 5 |
| SOCL 301 | Apprath |  |

SOCL 301 Approaches to Sociological Reasoning 5
An in-depth study of the field of sociology outlining the structure of the discipline, major theoretical and methodological perspectives, and definition of sociological problems. History of the field, relations and boundaries with other disciplines and current issues in sociology will also be covered. Required of all SOCL and SOCW majors.
SOCL 302 Sociological Methods 5
This course deals with the why and how of social research. We will cover two main themes: the epistemology of social science and the logic of study design. Students will chart the logic of a social study and establish criteria for evaluating this study. At the conclusion of this course students will be able to understand and interpret information about the contemporary social world. Required of all SOCL and SOCW majors. Prerequisite: SOCL 301.

## SOCL 303 Sociology of Community

Study of community as both an experience and a place; main focus on the life of the local community. Consideration of classical theories of Toennies and others; ecological, anthropological, and sociological perspectives on community. Historical changes transforming communities in the modern world and America. Contemporary problems of community and innovative responses; community and regional development.
SOCL $306 \quad$ Population Dynamics 5
Analysis of basic demographic processes and principles; population in relation to environment and resources. Main demographic patterns and trends in history in relation to changes in social and economic organization. Contemporary dynamics, including the demographic transition, over-population, and "birth death".

## SOCL 316 Class and Inequality

5
Exploration of the nature and development of social inequality and societal stratification. Alternative theories of Marx, Weber, functionalist and others on the dynamics and evolution of stratification systems, especially the emergence of the modern class system, in relation to changes in social structure. Special focus on classes and the elite in America, and contemporary changes. (formerly titled Inequality and Stratification)

## SOCL 317 Race and Ethnicity

Investigation of the social construction of race and ethnicity in comparative perspective, including the political and socio-historical factors affecting individual and group identities. Special attention paid to the economic and social-psychological dimensions of racism and domination. (formely titled Racial and Ethnic Relation)
SOCL 318 Gender Roles and Sexuality 5
Maleness/femaleness vs. masculinity/femininity; reflection of gender role changes in modern and traditional societies, perceptions and explanations of role changes in educational, economic, political, religious, marital, and familial life in American society. (formerly SC 421)

## SOCL 321 Socialization Across the Life-Cycle 5

Study of the formation of personal identity throughout the human life-cycle. 1. socialization: emergence of the self through identification with models, agents and modes of socialization, resocialization; 2 . Life-stages: moral and cognitive development, sociology of childhood, youth, adulthood, and old age. Changes in socialization patterns and life-stages in contemporary America.

## SOCL 330 Sociology/Anthropology of Religion

 5Exploration of the nature and evolution of religion from a cross-cultural perspective. Theories of Durkheim, Marx, Weber, and others on the nature and dynamics of religious beliefs, symbols, behaviors, organizations, and movements; interrelations of religion, society, culture, and self. Evolution of religious systems in relation to changes in social organization; contemporary religion and society.

## SOCL 333 Sociology/Anthropology of Law

 5Exploration of the nature and dynamics of law from a cross-cultural perspective. Theories of custom and law, sources of legal forms and principles; legal institutions, classes, and the state; deviance, law, and social control; changes in legal systems in relation to changes in politics, economics, religion, and society.

## SOCL 336 Sociology/Anthropology of Health and Medicine 5

Exploration of the meanings of health, disease, and modes of healing from a cross-cultural perspective. Changes in disease and mortality in relation to changes in social structure. Development of modern scientific medicine, professionalization, and the hospital system; critiques and alternative therapeutics; contemporary dilemmas and future prospects.


#### Abstract

SOCL 391 Special Topics 1 to 5 SOCL 392 Special Topics 1 to 5 SOCL 393 Special Topics 1 to 5 SOCL 402 Sociological Theory 5 An overview of both classical and contemporary theory with special emphasis on conceptualization of theoretical problems, comparison of theoretical approaches and limitations of given theoretical perspectives. Central sociological themes: the transition from traditional to modern society, the relation of ideas to social structure and the focus of identity in postmodern society will be discussed. Required of all SOCL and SOCW majors. Prerequisites: SOCL 301, 302. (formerly SC 340)


## SOCL 424 Sociology of Mental Illness 5

The nature, dynamics, and treatment of madness and insanity from a socio-cultural perspective. Theoretical perspectives on the social causes of mental illness; class, gender, and cultural differences; therapeutic approaches in cross-cultural and historical perspective. Changes in types and treatments of mental illness in relation to changes in society; contemporary definitions and treatment.
SOCL 480 Interdisciplinary Core Course

Title and content vary.

| SOCL 491 | Special Topics | 1 to 5 |
| :--- | :--- | ---: |
| SOCL 492 | Special Topics | 1 to 5 |
| SOCL 493 | Special Topics | 1 to 5 |
| SOCL 495 | Internship | 5 to 10 |

Practical work experience in a selected organization or supervised setting. Students are required to meet weekly on campus with other interns in a colloquium guided by a faculty member.
SOCL 496 Independent Study 1 to 5

SOCL 497 Directed Study 1 to 5
SOCL 498 Directed Research 1 to 5

## Social Work Courses

## SOCW 250 Introduction to Social Work 5

Historical development of social welfare practices and institutions. Theoretical bases underlying the structure and function of social welfare systems and services. Philosophy and methods used by professional social workers in meeting human needs.

## SOCW 354 The Helping Process 5

Survey of the philosophy and methods of social work practice with individuals, families, small groups and communities with a focus on interviewing skills and generalist intervention methods.

## SOCW 368 Social Work with Families 5

Behavioral dynamics in family systems, the reciprocal nature of relationships, and conceptual framework for individual and family therapy through study of treatment modalities.

## SOCW 391 <br> Special Topics <br> 1 to 5

SOCW 392 Special Topics 1 to 5
SOCW 393 Special Topics 1 to 5
SOCW 450 Welfare Policy and Community Change 5
Survey of historical and current social welfare policies and services in America with a focus on the remediation of critical social problems by intervention at the macro level.

## SOCW 452 Social Work with Children and Youth 5

A practice-orientated course focusing on methods of working with children and youth in social and interpersonal conflicts at home, school and the community.

## SOCW 456 Social Work with Adults and Aged

Examines the history and current status of adults and aged. Current concepts about the aging process and theoretical frameworks which attempt to explain or resolve the social problems of the adult and aged are presented.

## SOCW 470

Field Experience
5 to 10
Required practical experience for social work majors. Work in a selected organization or supervised setting combined with campus meetings guided by a faculty member. Does not fill core senior synthesis.

SOCW 491
Special Topics
1 to 5
SOCW 492 Special Topics 1 to 5
SOCW 493
SOCW 496
SOCW 497
SOCW 498

Special Topics
1 to 5
Independent Study
1 to 5
Directed Study
1 to 5
Directed Research
1 to 5

## Anthropology Courses

## ANTH 230 Cultural Anthropology 5

Study of the nature and the dynamics of cultural processes, the evolution of human beings and cultures. Analysis of the ecological, social, and symbolic lives of humans in a holistic way. Case studies and selected institutions and peoples. Evolution of major socio-cultural systems; impacts of Westernization on native peoples today. (formerly SC 230)

## ANTH 323 Culture and Personality 5

Exploration of cross cultural differences in the organization of personality systems. Alternative theories of culture and character, formation of cognitive and moral structures, and changes in selves in relation to changes in larger social and historical contexts. Evolution of Western notions of personhood, the modern self, and the development of American character structure. (formerly SC 323)


#### Abstract

ANTH 391 Special Topics 1 to 5 ANTH 392 Special Topics 1 to 5 ANTH 393 Special Topics 1 to 5 ANTH 396 Directed Study 1 to 5 ANTH 438 Anthropology of Pacific Northwest Peoples 5 Study of the cultures of native peoples of the north Pacific coast and inter-mountain plateau. Overview of eras, and natural and cultural regions. Analysis of selected peoples in terms of ecology and economics, kinship, politics, status, mythology and ritual. Review of intertribal relations, native-white relations, and native-government relations. Contemporary changes, politics, and future prospects. (formerly SC 438)


ANTH 491 Special Topics 1 to 5
ANTH 492 Special Topics 1 to 5
ANTH 493 Special Topics 1 to 5
ANTH 496 Independent Study 1 to 5
ANTH 497 Directed Reading 1 to 5
ANTH 498 Directed Research 1 to 5
Also see:
SOCL 330 Sociology/Anthropology of Religion
SOCL 333 Sociology/Anthropology of Law
SOCL 336 Sociology/Anthropology of Health and Medicine

# Theology and Religious Studies <br> Jeanette Rodriguez-Holguin, PhD, Chair 

## Objectives

Theology and religious studies contribute to the formation of students' personal growth by helping them develop attitudes, skills, and knowledge to deal perceptively and critically with the religious dimension of human life, especially with the beliefs, practices and values of the Catholic Christian tradition. The department supplies two levels of courses for the university core curriculum. Phase II religious experience courses ( 200 numbers on the bulletin course listings) help students recognize and appreciate the presence and function of the sacred in human life and history; Phase III theological reflection courses (300 numbers in the course listings) enable students to learn how to understand religious traditions.

Students must take a Phase II course before they can register for a Phase III course. Transfer students with 90 or more credits and no equivalent 200 - or 300 - level theology/ religious studies course are granted a waiver for Phase III ( $300-\mathrm{level}$ ) and are required to take a Phase II ( 200 -level) course at Seattle University.
The department also offers a program of courses, some from courses designed for the core curriculum, some special for majors and minors ( 400 numbers in the listings), leading to a bachelor of arts degree in theology and religious studies.

## Degrees Offered

Bachelor of Arts

## Major Offered

Theology and Religious Studies

## Minor Offered

Theology and Religious Studies

## Bachelor of Arts <br> Major in Theology and Religious Studies


#### Abstract

In order to earn the bachelor of arts degree with a major in theology and religious studies, students must complete a minimum 180 credits with a cumulative grade point average of 2.0 and major/program grade point average of 2.5 , including the following:


## I. Core Curriculum Requirements

ENGL 110 Freshman English ............................................................................... 5
PHIL 110 Introduction to Philosophy and Critical Thinking .............................. 5
HIST 120 Origins of Western Civilization ........................................................... 5
ENGL 120 Masterpieces of Literature .................................................................. 5
MATH 107 or 110 or above ......................................................................... 5
Lab Science .......................................................................................................... 5
FINR 120 or approved fine arts alternate .......................................................... 5
PHIL 220 Philosophy of the Human Person ....................................................... 5
Social Science I ....................................................................................................... 5
Social Science II (different discipline from Social Science I) ................................... 5
Ethics (upper division) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin.
II. College of Arts and Sciences Requirements
Foreign Language 115, 125, 135, or equivalent ..... 15
Please Note: All students with a major in the College of Arts and Sciences must demonstrate competency in a foreign language through the 135 level. This competency is ordinarily achieved by successful completion of the three-course sequence: $\mathbf{1 1 5}, \mathbf{1 2 5}$, and 135 . Because these courses are a college requirement, no course in the sequence may be taken on a pass/ fail, correspondence, or audit basis. Placement into other than the beginning course of the sequence is achieved by acceptable performance on the Foreign Language Competency Examination. See the Foreign Language Department for details on the examinations.
Choose one of the following two courses: ..... 5
HIST 121 Studies in Modern Civilization
HIST 231 Survey of the United States
III. Major Requirements
Sixty credits in theology and religious studies, including:
Introductory Courses
TRST 267 Spiritual Traditions: East and West ..... 5
Choose one of the following Hebrew Bible courses: ..... 5
TRST 200 The Hebrew Bible
TRST 201 Torah: The Birth of a People
TRST 208 Women and the Hebrew Bible
Choose one of the following New Testament courses: ..... 5
TRST 211 The Gospel of Jesus Christ
TRST 217 The Message of Paul
TRST 221 John: A Different Gospel
Intermediate Courses
Choose two of the following systematics courses: ..... 10
TRST 300 Themes of Christian Faith
TRST 301 Women and Theology
TRST 303 Theology of the Person
TRST 310 Christology
TRST 312 Rethinking God
TRST 317 Church as Community
TRST 321 Symbol, Ritual, and Sacrament
TRST 334 Jesus and Liberation
Choose one of the following ethics courses: ..... 5
TRST 330 God, Money, and Politics
TRST 338 Human Sexuality: The Challenge of Love
TRST 341 Contemporary Ethical Issues
TRST 345 Biomedical Ethics: The Giving and Taking of Life
TRST 347 Religion and Ecology

## Advanced Courses

Choose one of the following two courses: ..... 5
TRST 407 Interpreting the Hebrew Bible
TRST 414 Interpreting the Synoptics
TRST 401 Theology of Religions ..... 5
TRST 419 Early Christian Theology ..... 5
TRST 420 Medieval and Restoration Theology ..... 5
TRST 461 Theology Seminar ..... 5
TRST *Elective (approved by adviser) ..... 5
Please Note: *Students who transfer with 90 or more credits and no applicable religiousstudies may waive this requirement, reducing their major credit total to 55 .
Minor in Theology and Religious Studies
In order to earn a minor in theology and religious studies, students must complete 30credits in theology and religious studies, including:
Choose three courses in one of the following specializations: ..... 15
Biblical Studies
Systematic Theology
Historical Theology
Theological Ethics
World Religions
Choose one course from each of three areas outside the chosen specialization: ..... 15
Biblical Studies
Systematic/Historical Theology
Theological Ethics
World Religions

Please Note: 1. Students considering a minor should contact the department chair as soon as possible to discuss options. 2. Brochures with sample courses for each area of specialization are available in the departmental office. 3. All minors will work closely with a faculty adviser in their chosen area of specialization. 4. It is strongly recommended that students take one or more 400 -level courses. 5 . If students design their programs carefully, courses taken to fulfill the Theology and Religious Studies core requirement will count toward the minor. See policy for minors on p .43.

## Theology and Religious Studies Courses

Courses numbered in the 200s are Core Phase II; those in the 300s are Phase III and each has a Phase II Religious Studies prerequisite. Advanced courses for majors and minors as well as interdisciplinary core courses carry 400 numbers. See core curriculum section of this bulletin. Courses that fill requirements for theology and religious studies minors are designated by the following code:

B Biblical Studies
S Systematic Theology
H Historical Theology
TE Theological Ethics
WR World Religions

Core Phase II: Person in Society—Religious Experience<br>Pbase II courses investigate religious experience, asking bow students' own religious experiences and those of particular faith communities affect their understandings of self, others, the natural world, and the Sacred.

## TRST 200 The Hebrew Bible 5

Study of central traditions and texts of the Hebrew Bible in their historical, cultural, political, and religious contexts. Extensive reading in the narrative and prophetic books and the Psalms, and an intensive study of selected texts, with attention to their role as foundational in the Jewish and Christian religions, both traditionally and recently. B

## TRST 201 Torah: The Birth of a People 5

Study of the Torah or Pentateuch, the core of the Hebrew Bible. Stories of world creation and flood, of Israel's ancestors, of slavery and liberation, of covenant and wandering. Critical reflection on the use of these stories in both Jewish and Christian traditions and in the theologies of contemporary marginalized groups. B
TRST 208 Women and the Hebrew Bible 5
Investigation of a selection of narrative, legal, prophetic, and wisdom texts dealing with themes relating to women's lives: the frequent absence or trivialization of women; images of women-both individuals and types-as victims, as evil, as strong, and as loyal; and gendered imagery of the divine. Secondary literature will include interpretations by Jewish and Christian women around the world as well as white women and women of color in the United States. B

## TRST 211 The Gospel of Jesus Christ 5

Introductory study of the New Testament with a focus on the Jewishness of Jesus of Nazareth; his unique view of the relationship between God, human persons, communities, and the cosmos as a revolutionary perspective on human identity and freedom. The literary forms in which the Christian community proclaimed him. Appropriations of the Jesus tradition from the diverse perspectives of culture, gender, class, and race. B

## TRST 217 The Message of Paul

Paul's letters as the earliest New Testament writings of Christian faith and experience; his evolving understanding of Jesus; influence of the believing community and its culture on Paul's theology; dominant themes and ethical perspectives within the letters, relating especially to modern concerns and issues (e.g., Jewish-Christian dialogue, ministry, sexuality). B

TRST 221 John: A Different Gospel 5
Investigation of John's distinctive understanding of Jesus as the divinely incarnate Christ; John's cultural and religious background and its shaping of the picture of Jesus as divine light and life; John's theology of indwelling and stress on the commandment of love; the relevance of the Johannine Jesus for contemporary believers. B

TRST 224
Women and the New Testament
5
Investigation of stories, images, and texts within the New Testament that touch directly on women's lives. Use of feminist hermeneutics, in conversation with modern historical and literary methods, to explore the meaning and value of these stories and images in terms of their ancient cultural context, traditional interpretations, and modern application. Special focus on the portrayal of Jesus in relationship to women within the gospel tradition. B

## TRST $230 \quad$ God in Human Experience 5

Exploration of religious experience and the understandings of the Sacred, the natural world, person, and society that flow from such experience. Major themes include: revelation and faith; experiences of God and their expression in symbols, stories, and concepts; implications of one's view of God for understanding persons and community; challenges to the contemporary believer. S

## TRST 235 Catholic Traditions 5

Description of the historical roots and the characteristic set of beliefs, values, structures, and practices that give rise to, shape, and vitalize the continuing faith-life of Roman Catholics. Scriptural sources and life-effects of the tradition. S

TRST 243 Faith and Morality 5
Examination of connections between Christian faith expressions and decisions/actions in everyday life. Topics include: development of persons as moral agents in society; the place of Christian scriptures and tradition in the formation of people as agents in history; methods of moral decision-making and tools for evaluating personal decisions and public policies; application to central issues of the day. TE

## TRST 252 Living Prayer

Introduction to prayer as humans' most direct experience of God; investigation of our experiences of prayer, from prayers our parents taught us to liturgical prayer in various traditions; identification of personal prayer styles; Eastern and Western methods of contemplation as integration of self and world and as union with God.

## TRST 255 Psychology and Religion

Exploration of experiences of the Sacred as religious and psychological phenomena. Reflection on theories of faith development and development of persons through the lifecycle. Study of the Gospel story of Jesus as paradigm of authentic human life.

TRST 258 African-American Religious Experience 5 Effect of experiences and understandings of God (esp. providence, justice, power, knowledge, goodness) on African-American history, struggle, and concepts of reality. Contributions of African-Americans to biblical interpretation and theological understanding. Impact of African roots, slavery, segregation, and the civil rights movement upon the AfricanAmerican collective psyche. S
TRST 267 Spiritual Traditions: East and West 5
Study of the revelation-authority religions of the West (Judaism-Christianity-Islam) compared with the wisdom-experience traditions of Asia (Hindu-Buddhist-Tao-Shinto). Focus on historical data and Scriptural texts of each tradition to understand different views of person, community, sacred world, and meditation as experienced relationship to the divine. WR

TRST 275 Jewish Faith and Life 5
Examination of monotheism, covenant, morality and ethics as law, halacha (an intricate system of law governing the daily life of the individual), the lifecycle from birth to death, Sabbath and holidays, kosher dietary laws, messiah and messianism, theological Zionism, political Zionism, and the modern Jewish state of Israel. Analysis of antisemitism as a major factor in the development of Judaism and the Jewish psyche. WR

| TRST 291 | Special Topics | 2 to 5 |
| :--- | :--- | :--- |
| TRST 292 | Special Topics | 2 to 5 |
| TRST 293 | Special Topics | 2 to 5 |

## Core Phase III: Responsibility and ServiceTheological Reflection

Phase III courses employ more advanced theoretical frameworks and critical skills to explore the implications of theological understanding for responsiblity, service, and justice in the world.

Please Note: All 300 level courses have a prerequisite of a Phase II 200 -level religious studies course.

## TRST 300 Themes of Christian Faith 5

Origins, continuing relevance, and integrating connections of some of the principal beliefs that shape and sustain Christian living over time: faith, revelation, creation, incarnation, redemption, life in the Spirit. Relation of beliefs to continuing life-evaluations and decisions. S

## TRST $301 \quad$ Women and Theology 5

Exploration of central topics in feminist theology, e.g., naming the sacred, the self in relation, transformation of the world. Discussion of what is involved in "doing theology" and what women bring to this discipline by attending to their own experience, interpretation, and the power of their heritage. $S$
TRST 303 Theology of the Person
Theological reflection on the nature of human persons understood in relation to self, community, natural world, and God. Major themes include origins and destiny; sin and grace; embodiment; creativity, play, and work; gender and sexuality; suffering and oppression; human dignity and responsibility. S

## TRST 310 Christology

Exploration of Jesus Christ's continuing redemptive significance for today's world. Sources and methods for addressing questions about who Jesus is and what he does. Investigation of the Christian community's deepening understanding of and response to the mystery of Jesus' person, presence, and power. S

## TRST 312 Rethinking God

Exploration of some major themes in the doctrine of God (e.g., power, love, transcendence, involvement in the world, trinitarian life, etc.) in light of questions raised by contemporary understandings of basic issues like suffering, gender and cultural diversity, humanity's place in the ecosystem, etc. Reflection on images and understandings of God in the Bible, Christian tradition, contemporary theology. Influence of one's view of God upon one's sense of responsibility for the world. S

## TRST $317 \quad$ Church as Community

An examination of the Christian community's attempt to represent Jesus' expression of the love of the triune God for all creation. Study of the Church's beliefs, values, structures, and activities in the past and in today's pluralistic world. Role of the Christian community in the lives of its members and in society. $S$

TRST 321
Symbol, Ritual, and Sacrament
5
Investigation of the relevance of symbol, ritual, and sacrament for human life. Introductory exploration of these topics in selected world religions. Study of sacraments in the Catholic Christian tradition, including Christ and the church as primary sacraments, biblical roots, and historical development; contemporary challenges to sacramental practice; relation between sacraments and Christian living.
TRST 330 God, Money, and Politics 5
A critical examination of the relationship between wealth and power and the Christian tradition; relationship between faith and the social, political, and economic orders; faith and justice; Christian social teachings; Christian responses to issues of poverty, hunger, and injustice. TE
TRST 334 Jesus and Liberation 5
Examination of the subject and methods of liberation theologies, such as Latin American, feminist, black, Asian; reflection on the life, mission, death, and resurrection of Jesus Christ in light of oppressive situations; role of church; nonviolence, revolution, and the drive for freedom. S

TRST 338 Human Sexuality: The Challenge of Love 5
Study of ethical standards for human sexuality in relation to Scripture, Christian tradition, and human experience; dialogue between the natural/social sciences and theological perspectives on sexuality; role of gender in sexuality; examination of ethical norms on marriage, same-sex relationships, being single, and dysfunctional and abusive relationships; sacramental character of marriage; sexuality and the sacred. TE

## TRST 341 Contemporary Ethical Issues

Exploration of selected contemporary moral problems in the light of the challenge they present to Christian ethics; emphasis upon components of an adequate Christian ethical framework; dialogical character of Christian ethics between the natural/social sciences and theological/philosophical perspectives; issues such as nonviolence, war and peace, capital punishment, racism, sexism, etc. TE

## TRST 345 Biomedical Ethics: 5 <br> The Giving and Taking of Life

Reflection on the ethical challenges that modern scientific and medical advances present to the Christian tradition in the areas of human reproduction and death; the proper relationship between science and Christian faith; the personal and relational character of human persons and their ways of moral knowing vs. the technological, scientific ways of determining knowledge. TE

## TRST 347 Religion and Ecology

Exploration of the role and responsibility of humans in the natural world; place of nature in Christian teachings and practices; examination of biblical themes, such as domination, co-creation, Promised Land, and Exodus; Christianity in the face of the environmental crisis and its dialogue with nature religions; myth and symbols of the sacred in nature. TE

## TRST 371 Christian-Buddhist Dialogue 5

Comparative study of Christianity and Buddhism emphasizing the unity and diversity in both traditions. Exploration of major Christian theological concepts of the divine Trinity, the divine and human nature of Jesus Christ, revelation and redemption; as compared to the Buddhist teachings of sunyata and nirvana, enlightenment, Buddha-nature, and Zen philosophy. Special attention will be given to new approaches in inter-religious dialogue, such as comparative hermeneutics of scriptures and classics. WR

## TRST 373 Creation Spirituality <br> 5

Reading, analysis, and discussion of the current Christian search for a holistic awareness of a God whose presence continues in an ongoing Creation and of human dynamic connectedness with and dependence on the natural world. Reflection on Chinese Taoist and Zen Buddhist views, which contribute to environmental courtesy and personal harmony with the universe. WR

TRST 380 Core Ethics: Christian Perspective 5
Core ethics requirement as offered from Christian theological perspectives. Examines the theological contributions which Christian faith brings to bear upon normative ethics by exploring the constitutive elements of an adequate ethical framework within the Christian tradition; theological method, requisite sources of knowledge informing an ethical framework, the prioritization of sources in normative ethics, modes of ethical reasoning. TE

## TRST 391 <br> Special Topics <br> 2 to 5

TRST 392 Special Topics 2 to 5
TRST 393 Special Topics 2 to 5
TRST 396 Directed Study 2 to 5

## Major Courses

## TRST 401 Theology of Religions 5

The study of theologizing the world's religious history; in Jewish, Christian, Buddhist, Hindu, Taoist-Confucian, and Japanese traditions. An in-depth exploration of inter-religious dialogue. Topics considered include the persistence of religion, science, and religious experience; revelation and transcendence; invisible harmony, cosmic confidence in reality, and anthropomorphic categories. Christocentrism and Buddhacentrism, Brahmanic transcendence and Muslim mysticism. Prerequisite: TRST 267. WR

## TRST 407 Interpreting the Hebrew Bible <br> 5

Intensive study of selected texts in the Hebrew Bible focusing on a specific theme; emphasis on inductive study followed by reading a variety of interpretations; attention to the use made of these texts in various strands of Jewish and Christian traditions. Prerequisite: 200-level course in Hebrew Bible. B

## TRST 414 Interpreting the Synoptics 5

Discussion of the synoptic problem; use of historical (source, form, reaction criticisms) and literary methods to uncover the unique portraits of Jesus in the Gospels of Matthew, Mark, and Luke; the Gospels as narrative theologies embodying images of self, God, community, and world; critical reflection on interpretative uses of Gospel traditions from diverse perspectives. Prerequisite: 200 -level course in New Testament. B

## TRST 419 Early Christian Theology 5

An exploration of the development of Christian theology from the sub-apostolics through the early Middle Ages, emphasizing the Christological and Trinitarian controversies and the writings of Augustine. H

## TRST 420 Medieval and Restoration Theology

An exploration of the development of Christian theology from Bonaventure through the Council of Trent emphasizing the contributions of Aquinas, Luther, and Calvin. H
TRST 461 Theology Seminar ..... 5In-depth investigation of one selected theme that engages students in the full range ofadvanced theological reflection-biblical roots, historical development, contemporaryreinterpretations, implications for life-and includes attention to the trinitarian dynamicof Christian theology. Examples include Trinity, grace, and life in the Spirit; Christiananthropology; Christology; justice and the common good; etc. Capstone course for themajor; does not satisfy senior synthesis requirement. Prerequisite: major or permission. S
TRST 480 Interdisciplinary Core Course ..... 3 to 5
Title and content may change each term
TRST 491 Special Topics ..... 2 to 5
TRST 492 Special Topics ..... 2 to 5
TRST 493 Special Topics ..... 2 to 5
TRST 496 Independent Study ..... 2 to 5
TRST 497 Directed Reading ..... 2 to 5
TRST 498 Directed Research ..... 2 to 5

# Women's Studies Minor 

Betsey Barker Klein, MA, Co-director
Jodi 0'Brien, Ph.D., Co-director

## Objectives

The program of courses which comprises the women's studies minor will enable students to examine women's roles in society from multiple perspectives and disciplines; to understand and evaluate feminist critical scholarship and to apply it across disciplines and in all areas of life; to analyze the connections between gender inequalities and other forms of discrimination (race, class ethnicity, etc.); and to develop abilities and skills to deal positively and effectively with gender issues for individuals and society.

The minor is designed for women and men to complement a major field of study with an increased understanding of the role gender plays in the social construction of reality.

## Minor in Women's Studies

In order to earn a minor in women's studies, students must complete 30 credits in women's studies, including:

WMST 401 Women's Studies Seminar ................................................................. 5
Electives from approved list .................................................................................... 25
Not more than 10 credits may be taken in any one discipline. At least 15 credits must be from upper-division courses. At least 15 credits must be taken at Seattle University, five credits of which must be WMST 401.

Please Note: As soon as a student decides to pursue a minor in women's studies, she or he should contact the director. In consultation with the director, students will choose an adviser and begin to design programs that fit their specific interests and best complement their majors. The adviser helps decide on particular courses, assures that all requirements of the minor are fulfilled, that the minor is noted on the transcript, and provides information on further study and/or career opportunities.
Courses selected for the minor may include those which fulfill university core or elective requirements, and those taken to fulfill a major.
See information on minors on p. 43.

## Courses Approved for the Women's Studies Minor

## Courses Specific to the Minor

WMST 101 Introduction to Women's Studies
A survey of women in society and feminist methods and concepts. Major themes include identity, work, community, and citizenship. How race, class, age, nationality, ethnicity, and sexuality create similarities and differences with gender.
WMST 401 Women's Studies Seminar
Exploration of methods of various disciplines to understand gender, providing a truly interdisciplinary perspective on women's issues. Synthesis of preceding work in the minor. Required for women's studies minor. Prerequisite: senior standing, women's studies minors only.
Courses Based in Other Departments
(See departmental listings for descriptions.)
CMJR 480 Gays, the Media, and Politics (or Sex, Myth, and Media) ..... 5
CRJS 405 Feminist and Multicultural Criminology ..... 5
ENGL 440 Women and the Creative Imagination ..... 5
ENGL 441 International Women's Writing ..... 5
HIST 328 US Women's History ..... 5
NURS 372 Issues in Women's Health: A Wellness Perspective ..... 3 or 5
PHIL 220 Philosophy of the Human Person ..... 5
(Only sections designated X:WS in the remarks column of the quarterly schedule of classes)
PHIL 367 Gender and Social Reality ..... 5
PHIL 345 Ethics ..... 5
(Only sections designated X :WS in the remarks column of thequarterly schedule of classes)
PLSC 339 The Politics of Gender ..... 5
PSYC 340 Psychology of Gender ..... 5
SOCL 318 Gender and Sexuality ..... 5
SOCL 402 Sociology Theory ..... 5
(Only sections designated X :WS in the remarks column of thequarterly schedule of classes)
TRST 208 Women and the Hebrew Bible ..... 5
TRST 224 Metaphor and Gender in the Bible ..... 5
TRST 301 Women and Theology ..... 5
Special topics courses will be added as departments propose new offerings. Recent classtitles include: ECON 491 Economics of Gender and the Family; HIST 393E Her Story/HisStory; HUMT 400 Women: Image/Reality; SOCL 491 Sexual Politics; TRST 293 Women in theGospel; WMST 392E Feminist Theories and Methods. Appropriate offerings will be identi-fied each term in the schedule of classes.

## Albers School of Business and Economics

Jan Duggar, PhD, Dean and Genevieve Albers Chair C. Frederick DeKay, PhD, Associate Dean Mary Carpenter, MEd, Director of Graduate Programs David White, MBA, Director of Marketing and External Relations
Wendie Phillips, MA, Director of Undergraduate Programs
Lorie Johnson, MEd, Director of Albers Placement Center

## Department Chairs

Accounting: David E. Tinius, PhD
Management: David Arnesen, JD
Economics and Finance: Barbara M. Yates, PhD

## Program Directors

Undergraduate Program Chair: Mary Jean Rivers, PhD
Graduate Program Chair: William Weis, PhD
Individualized Major in Business Administration: Mary Jean Rivers, PhD
International Business: C. Patrick Fleenor, PhD
Marketing: Rex Toh, PhD
Operations: Greg Magnan, PhD

## Professorships and Endowed Chairs

Robert D. O'Brien Chair in Business: Barbara Parker, PhD Frank Schrontz Endowed Chair of Ethics: John Dienhart, PhD Thomas Gleed Chair in Business: Russell J. Petersen, PhD

## Centers

The Entrepreneurship Center: Harriet Stephenson, PhD, Director

## Objectives

In the spirit of the Jesuit tradition of academic excellence, student development, and the service of faith through the promotion of justice, the Albers School of Business and Economics provides high quality educational programs, research and scholarship, and service.
We prepare students for leadership positions in domestic and international business, government, and in not-for-profit organizations. Our programs develop responsible leaders who think clearly and critically, judge wisely and humanely, communicate effectively, and act with integrity at all times. They, moreover, foster an ethical and service orientation.
We conduct high-quality research in order to enhance the quality of teaching, foster an intellectual atmosphere, improve management practice, contribute to public policy, and serve society's needs.

Finally, we encourage and promote high-quality service to the university and community.

## Accreditation

The undergraduate and graduate programs are accredited by AACSB-IAME, International Association for Management Education (formerly AACSB).

## Organization

The Albers School has two principal divisions, undergraduate and graduate studies. Undergraduate majors are offered in nine business fields, culminating in a bachelor of arts in business administration. In addition, the school offers a bachelor of arts in economics degree program.

Minors are offered in business administration, economics, and international business. Certificates of post-baccalaureate studies are also available.

## Undergraduate Degrees and Programs Offered

Bachelor of Arts in Economics
Bachelor of Arts in Business Administration with majors in:
Accounting
Business Economics
Finance
Individualized Major in Business Administration
International Business
Management
Marketing
Operations
Risk Management

## Double Concentration

Major in two program areas

## Minors Offered

Business Administration
Economics
International Business

## Accelerated Programs

Bachelor of Arts in Business Administration and Master of Business Administration Bachelor of Arts in Economics with Business Administration minor and Master of Business Administration
Bachelor of Arts and Master of Arts in Applied Economics
Master's degree programs may, under special circumstance as outlined in the program section of the Graduate Bulletin of Information, allow master's candidates to apply not more than six credit hours of graduate coursework taken as part of their undergraduate degree to meet credit hour requirements for the master's degree.

## Certificate of Post-Baccalaureate Studies

Accounting<br>Business Administration<br>Business Economics<br>Finance<br>International Business<br>Manufacturing<br>Purchasing

## Graduate Degrees and Programs Offered

See Graduate Bulletin of Information for:
Master of Arts in Applied Economics
Master of Business Administration
Master of International Business
Master of Science in Finance
Master in Professional Accounting
Joint Degrees in Law and Business
Certificate of Post-MAE Studies
Certificate of Post-MBA Studies
Certificate of Post-MSF Studies
Certificate of Post-MIB Studies
See School of Law Bulletin for:
Juris Doctor

## Curriculum

The program of required study for the bachelor of arts in business administration has four principal components: the university core, business foundation requirements, major requirements, and electives. All students fulfill requirements in English, mathematics, philosophy, lab science, social sciences, and theology and religious studies. The business foundation requirements include courses in accounting, economics, finance, legal environment, international, management, marketing, operations, and statistics. Specialization in one of the nine major fields is required. No course in the major may be taken through independent study or internship. Business courses appear under the prefixes ACCT, BUEN, ECON, FINC, INBU, MGMT, MKTG and OPER.

## General Program Requirements

A minimum of 180 credits is required for a bachelor degree in business or economics, including 80 hours of university core curriculum courses. The pass/fail option may not be applied to courses in the business foundation, university core, or business major. Internship and independent study must be graded CR/F and may not be used to satisfy a required course or major elective.

Students transferring courses from another institution and pursuing a degree in business administration (BABA) normally must earn at least 50 credits ( 65 hours for accounting majors) of business courses at Seattle University. Forty of these credits ( 55 of these credits for accounting majors) must be taken at the upper-division ( $300-400$ ) level. Twenty credits ( 30 credits for accounting majors) in the student's concentration must be taken at Seattle University. Students pursuing a bachelor's degree in economics (BA ECON) must normally earn 30 credits of upper-division economics at Seattle University.

A maximum of 20 credits taken by an undergraduate non-matriculated student may be applied toward a baccalaureate degree in the Albers School of Business and Economics.

## Academic Advising

The Albers School of Business and Economics is committed to providing students accessible academic advising services. The intent of academic advising, whether formal or informal, is to assist students in formulating an academic plan consistent with their individual academic and career goals. Academic advisers aid in assessing education goals; provide information about degree requirements, university policy, and university procedure; serve as a referral to other campus resources; and encourage involvement in campus programs and organizations which will benefit the educational experience.

Students are encouraged to make the most of their own education and are ultimately responsible for fulfilling all the requirements of their specified degree. To help students succeed academically, the Albers School provides two levels of advising services: curriculum advising and major advising.

1. Curriculum Advising: Curriculum advising is provided by a core group of advisers who can assist students with degree requirements, policy questions, and campus resources. Freshmen are assigned advisers who are junior and senior business or economics majors trained to advise new students through their first year. First quarter registrants, freshmen, and students on academic probation are required to meet with an adviser to register for classes. Continuing students are encouraged to seek academic advising regularly through individual appointments, new student orientations, "express advising" hours or e-mail advising.
2. Major Advising: Junior and senior students are encouraged to meet with a faculty member in their major area to discuss selection and sequencing of major requirements and electives. This may happen with a faculty member at the student's initiation or at one of the Albers School sponsored events.

## Albers Placement Center

The Albers School Placement Center focuses on preparing undergraduate and graduate students for entering the work force. By providing connections to the business community through such programs as the mentor program, internships, and educational events, undergraduate and graduate students have the opportunity to interact with professionals in the student's intended field.

The Albers Placement Center provides the following programs and services:
Individual career counseling
Undergraduate and graduate mentor programs
Internships
Job Notes (weekly bulletin of job listings)
Professional skills programs (e.g. Etiquette Dinner, Dress for Success, company information nights)
Career Expo (campus wide career fair sponsored by Career Development Center and other placement services on campus)
Library resources for the job search
Company files

## Admission Requirements

## Native Students

Native students, that is, students entering Seattle University with no prior college, are accepted according to university undergraduate admission policy.

## Transfer Students

Transfer students, including transfers from other schools within Seattle University, must have a 2.75 cumulative grade point average and 2.75 minimum in business and mathematics courses to be admitted into the Albers School of Business and Economics.

Transfer applicants whose records do not meet the grade point average requirement may request special consideration by writing the director of undergraduate programs of the Albers School of Business and Economics specifying reasons for the exception request. A transfer student with 90 or more credits whose academic record is good but who has not completed required lower-division courses may be granted provisional admission for a specific number of terms to complete lower-division requirements.

To be accepted as transfer credit in fulfillment of a program requirement, business, mathematics, economics, and computer science courses must be graded a minimum of C ( 2.0 on the decimal system).

## Academic Progression and Junior Standing in the Albers School

1. No student is permitted to take business courses numbered 300 or above prior to admission to junior status in a business major. Exceptions may be requested by majors in other departments from the director of undergraduate programs of the Albers School of Business and Economics.
2. To be admitted to junior standing in a bachelor of arts in business administration (BABA) major, at least 90 credits and a cumulative grade point average of 2.25 is required. Also, BABA students must have completed MATH 118 and 130 or the equivalent, ECON 260, and at least four of these six other required lower-division courses: ACCT 230, 231, MGMT 280, CSSE 103, and ECON 271 and 272. The grade point average in these courses must be at least 2.25 . The remaining two required lower-division courses must be completed by the end of the second quarter of their junior year.
3. Both BABA and bachelor of arts in economics (BA ECON) students must maintain a 2.25 cumulative grade point average and a 2.25 business cumulative grade point average.
4. Students in the Albers School of Business and Economics must earn a grade of C- or better in each course required by the major and supporting courses such as MATH 118,130 , CSSE 103, and ECON 271.
5. Students applying for readmission after an absence of four consecutive quarters or more will be required to meet program and performance requirements in force at the time of re-enrollment.
6. Students changing to business and economics majors from other majors will be required to meet program and academic performance requirements in force at the time the major is changed.

## Dismissal

1. BABA and BA ECON majors who have 90 credits and who have not met the stated cumulative grade point average and basic course requirements for junior status are subject to dismissal from the Albers School of Business and Economics.
2. If the cumulative grade point average or the grade point average in business and economic courses (including computer science and mathematics) falls below 2.25 for three or more successive terms (including summer, if registered) the student is subject to dismissal.
3. Anyone who has completed more than 120 credits of degree requirements and has been dismissed, ordinarily will not be considered for readmission.
4. Students are allowed three attempts at a single course (including grades of $\mathrm{I}, \mathrm{NC}, \mathrm{HW}$, and W). If the course is not successfully completed on the third attempt students are subject to dismissal from the Albers School.

## Graduation

To be granted either the BABA degree or the BA ECON degree, students must achieve a 2.25 cumulative grade point average overall, as well as a 2.25 cumulative grade point average in all Seattle University course work required by the Albers School and complete a minimum of 180 credits.

## Accounting

David E. Tinius, PhD, Chairperson

## Objectives

Professionally trained accountants serve in diverse roles in private business, government, non-profit organizations, and other entities. After meeting the state requirements, many accounting graduates pursue careers as certified public accountants.

## Degree Offered <br> Bachelor of Arts in Business Administration <br> Major Offered <br> Accounting <br> Bachelor of Arts in Business Administration Major in Accounting

In order to earn the bachelor of arts in business administration degree with a major in accounting, students must complete a minimum of 180 quarter credits with a cumulative and major/program grade point average of 2.25 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ............................................................................... 5
PHIL 110 Introduction to Philosophy and Critical Thinking .............................. 5
Choose one of the following two courses: ........................................................................ 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ................................................................. 5
MATH 130 Elements of Calculus for Business (or MATH 134)*.......................... 5
FINR 120 or approved fine arts alternate ............................................................ 5
PHIL 220 Philosophy of the Human Person ....................................................... 5
Lab Science ......................................................................................................... 5
Social Science I (not economics) ............................................................................. 5
Social Science II (ECON 271 required)* .................................................................. 5
Theology and Religious Studies Phase II (200-299) ................................................. 5
Ethics (upper division) .................................................................................................... 5
Theology and Religious Studies Phase III (300-399) ............................................... 5
Interdisciplinary satisfied within major
Senior Synthesis satisfied by MGMT 489
*Major requirement and must be graded C- or better.
See detailed core curriculum information in this bulletin.

## II. Additional ASBE Requirements

Non-business elective (or MATH 118*) .................................................................... 5
CSSE 103 Introduction to Computers and Applications*.................................... 5
III. ASBE Business Foundation Requirements*Sixty-five credits, including:
ACCT 230 Principles of Accounting I ..... 5
ACCT 231 Principles of Accounting II ..... 5
ECON 260 Business Statistics ..... 5
ECON 272 Principles of Economics-Micro ..... 5
ECON 310 Quantitative Methods and Applications ..... 5
MGMT 280 Communication for Business ..... 5
Choose one of the following two courses: ..... 5
MGMT 320 Global Environment of Business
ECON 330 Int'l Economic Events and Business Decisions
FINC 340 Business Finance ..... 5
MKTG 350 Introduction to Marketing ..... 5
OPER 360 Manufacturing and Service Operations ..... 5
BUEN 370 Business and International Law ..... 5
MGMT 380 Principles of Management ..... 5
MGMT 489 Business Policy and Strategy ..... 5
IV. Major Requirements*
Thirty credits, including:
ACCT 301 Accounting Information: Sytems, Tools, and Concepts ..... 5
ACCT 311 Intermediate Financial Accounting I ..... 5
ACCT 312 Intermediate Financial Accounting II ..... 5
ACCT 330 Cost Accounting ..... 5
ACCT 336 Federal Income Tax I ..... 5
ACCT 420 Controllership: Integration of the Accounting Function ..... 5
V. Additional Requirements
General electives to total 180 ..... 10

With permission of the chair of the accounting program, undergraduate students earning bachelor degrees in accounting at Seattle University may take two specified graduate accounting courses (ACCT 530 Strategic Cost Management and ACCT 537 Advanced Accounting Information Systems) as electives. These electives will satisfy course requirements toward both the undergraduate degree in accounting and the master of professional accounting.

Please Note: 1. MGMT 280 must be taken prior to or simultaneously with ACCT 301. 2. Accounting majors must normally complete 65 credits of business courses at Seattle University; 55 of these credits must be at the upper-division level and only 10 credits may be transferred toward the concentration area and no more than 15 toward their business foundation courses. 3. Internships or independent studies will not satisfy major requirements.

[^0]
## Business Economics

Barbara M. Yates, PhD, Chairperson

## Objectives

A concentration in business economics enables students to deepen their understanding of the national and world economies as well as to develop economic analysis skills for careers in business, banking, investments, law, and government.

## Degree Offered <br> Bachelor of Arts in Business Administration <br> Major Offered <br> Business Economics <br> Bachelor of Arts in Business Administration Major in Business Economics


#### Abstract

In order to earn the bachelor of arts in business administration degree with a major in business economics, students must complete a minimum of 180 quarter credits with a cumulative and major/program grade point average of 2.25 , including the following:


I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
MATH 130 Elements of Calculus for Business (or MATH 134)* ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Lab Science ..... 5
Social Science I (not economics) ..... 5
Social Science II (ECON 271 required)* ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary satisfied within major.
Senior Synthesis satisfied by MGMT 489
II. Additional ASBE Requirements
Non-business elective (or MATH 118*) ..... 5
CSSE 103 Introduction to Computers and Applications* ..... 5
*Major requirements and must earn a grade of C - or better.See detailed core curriculum information in this bulletin.
III. ASBE Business Foundation Requirements*
Sixty-five credits, including:
ACCT 230 Principles of Accounting I ..... 5
ACCT 231 Principles of Accounting II ..... 5
ECON 260 Business Statistics ..... 5
ECON 272 Principles of Economics-Micro ..... 5
ECON 310 Quantitative Methods and Applications ..... 5
MGMT 280 Communication for Business ..... 5
Choose one of the following two courses: ..... 5
MGMT 320 Global Environment of Business
ECON 330 Int'l Economic Events and Business Decisions
FINC 340 Business Finance ..... 5
MKTG 350 Introduction to Marketing ..... 5
OPER 360 Manufacturing and Service Operations ..... 5
BUEN 370 Business and International Law. ..... 5
MGMT 380 Principles of Management ..... 5
MGMT 489 Business Policy and Strategy ..... 5
IV. Major Requirements*
Twenty-five credits, including:
ECON 374 Intermediate Microeconomics ..... 5
ECON Electives ..... 20
(Choose from upper division ECON courses, excluding ECON 370,377,470 , and 489 . FINC 443 may be included.)
V. Additional Requirements
General electives to total 180 ..... 15Please Note: 1. ECON 330 must be taken as part of the business foundation or as an upper-division economics course. 2. Internships or independent studies will not satisfy majorrequirements.

[^1]
## Economics

Barbara M. Yates, PhD, Chairperson

## Objectives

The courses in economics are designed to acquaint students with the economy in which they live and to relate these courses to all other social sciences. The analytical approach in the economics courses provides the students with the tools of analysis necessary to solve problems and make decisions in the government and private sector. The major courses cover topics such as economic fluctuations, income distribution, domestic and international finance, urban problems, labor relations, and economic systems. Students who perform especially well are encouraged to pursue graduate work in preparation for professional status as economists in government, industry, or the academic world. A major in economics, in combination with selected courses in political science, communications, and business, provides excellent preparation for law school and MBA or MPA programs.

## Degree Offered

Bachelor of Arts in Economics

## Major Offered

Economics

## Minor Offered

Economics

## Bachelor of Arts in Economics

In order to earn the bachelor of arts in economics degree with a major in economics, students must complete a minimum of 180 quarter credits with a cumulative and major grade point average of 2.25 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ............................................................................... 5
PHIL 110 Introduction to Philosophy and Critical Thinking .............................. 5
Choose one of the following two courses: ...................................................................... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ................................................................. 5
MATH 130 Elements of Calculus for Business (or MATH 134)* ........................... 5
FINR 120 or approved fine arts alternate........................................................... 5
PHIL 220 Philosophy of the Human Person ....................................................... 5
Lab Science ....................................................................................................... 5
Social Science I (not economics) ........................................................................... 5
Social Science II (different from Soc Science I; not economics) .............................. 5
Theology and Religious Studies Phase II (200-299) ................................................. 5
Ethics (upper division) ............................................................................................. 5
Theology and Religious Studies Phase III (300-399) .............................................. 5
Interdisciplinary ................................................................................................ 3 to 5
Senior synthesis filled by ECON 470 or 489.
*Major requirement and must earn a C- grade or better.
See detailed core curriculum information in this bulletin
II. Major Requirements*
Seventy credits, including:
CSSE 103 Introduction to Computer Applications ..... 5
ECON 260 Business Statistics ..... 5
ECON 271 Principles of Economics-Macro ..... 5
ECON 272 Principles of Economics-Micro ..... 5
ECON 310 Quantitative Methods and Applications ..... 5
ECON 330 International Economics Events and Business Decisions ..... 5
ECON 374 Intermediate Microeconomics ..... 5
ECON Electives ..... 30(Choose from ECON 370, 376, 379, 463, 468, 471, 472, 473, 474,475, 476, 478, 485, FINC 443)
Choose one of two courses for senior synthesis: ..... 5
ECON 470 History of Economic ThoughtECON 489 Senior Research (with permission of department chair)
III. Additional RequirementsGeneral electives to total 18040-42ACCT 230 Principles of Financial Accounting and MGMT 280 Communications forBusiness are highly recommended general electives.
Please Note: 1. For the bachelor of arts in economics, (BAECON) at least 20 credits of the economics electives must be at a 400 level. 2. ECON 377, 386, and 479 will not satisfy any of the upper-division economic electives. 3. Internships or independent studies may not satisfy major requirements.
*Major requirements must earn a C- grade or better.

## Minor in Economics

A minor in economics requires students to complete 30 credits of economics, which must include ECON 271, 272, 330, 374, and 10 credits of 300 -level or 400 -level electives in economics, selected with the assistance of an adviser.
ECON 377, 386, and 489 will not satisfy the upper division electives. See minor listings following major programs and policy for minors on p. 43.

## Finance

Barbara M. Yates, PhD, Chairperson

## Objectives

The courses in the finance curriculum are designed to provide the students with the theoretical and technical knowledge students need to become effective financial decision makers. The curriculum emphasizes the importance of the finance function in a business setting as well as the role it has in the efficient allocation of resources in the economy.

## Degree Offered <br> Bachelor of Arts in Business Administration <br> Major <br> Finance <br> Bachelor of Arts in Business Administration Major in Finance

In order to earn the bachelor of arts in business administration degree with a major in finance, students must complete a minimum of 180 quarter credits with a cumulative and major/program grade point average of 2.25 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ............................................................................... 5
PHIL 110 Introduction to Philosophy and Critical Thinking .............................. 5
Choose one of the following two courses: ...................................................................... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ................................................................. 5
MATH 130 Elements of Calculus for Business (or MATH 134)*........................... 5
FINR 120 or approved fine arts alternate ............................................................ 5


Social Science I (not economics) ............................................................................. 5
Social Science II (ECON 271 required)* ................................................................. 5
Theology and Religious Studies Phase II (200-299) ................................................. 5
Ethics (upper division) ............................................................................................ 5
Theology and Religious Studies Phase III (300-399) ............................................... 5
Interdisciplinary satisfied within major
Senior Synthesis satisfied by MGMT 489

## II. Additional ASBE Requirements

Non-business Elective (or MATH 118*) ................................................................... 5
CSSE 103 Introduction to Computers and Application* ....................................... 5
*Major requirements and must earn a C - grade or better.
See detailed core curriculum information in this bulletin.
III. ASBE Business Foundation Requirements*
Sixty-five credits, including:
ACCT 230 Principles of Accounting I ..... 5
ACCT 231 Principles of Accounting II ..... 5
ECON 260 Business Statistics ..... 5
ECON 272 Principles of Economics-Micro ..... 5
ECON 310 Quantitative Methods and Applications ..... 5
MGMT 280 Communication for Business ..... 5
Choose one of the following two courses: ..... 5
MGMT 320 Global Environment of Business
ECON 330 Int'l Economic Events and Business Decisions
FINC 340 Business Finance ..... 5
MKTG 350 Introduction to Marketing ..... 5
OPER 360 Manufacturing and Service Operations ..... 5
BUEN 370 Business and International Law. ..... 5
MGMT 380 Principles of Management ..... 5
MGMT 489 Business Policy and Strategy ..... 5
IV. Major Requirements*
Twenty-five credits, including:
FINC 342 Intermediate Corporate Finance ..... 5
FINC 344 Investments and Portfolio Theory ..... 5
FINC 443 Financial Institutions and Markets ..... 5
FINC Electives ..... 10(Choose from ECON 330, FINC 440, 441, 444, 445, 446, 450, orother approved upper-division finance courses.)
V. Additional Requirements
General electives to total 180 ..... 15
Additional accounting and economics courses recommended.Please Note: Finance majors must take ECON 330 as part of the business foundation or as oneof the two elective courses in the major. Interships and independent studies may not satisfy amajor requirement.

[^2]
# Individualized Major in Business Administration 

Mary Jean Rivers, PhD, Program Director

## Objectives

The individualized major in business administration provides the opportunity for a broad survey of business subjects. It is designed for students who intend to operate their own business enterprises, those who expect to attain greater specialization through on-thejob programs, or those who plan for later study in a specific area.

## Degree Offered

Bachelor of Arts in Business Administration

## Major Offered

Individualized Major in Business Administration

## Bachelor of Arts in Business Administration Individualized Major in Business Administration

In order to earn the bachelor of arts in business administration degree with an individualized major in business administration, students must complete a minimum of 180 quarter credits with a cumulative and major/program grade point average of 2.25 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
MATH 130 Elements of Calculus for Business (or MATH 134)* ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Lab Science ..... 5
Social Science I (not economics) ..... 5
Social Science II (ECON 271 required)* ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary satisfied within major
Senior Synthesis satisfied by MGMT 489
*Major requirements and must earn a C- grade or better.See detailed core curriculum information in this bulletin.
II. Additional ASBE Requirements
Non-business Elective (or MATH 118*) ..... 5
CSSE 103 Introduction to Computers and Application* ..... 5
III. ASBE Business Foundation Requirements*
Sixty-five credits, including:
ACCT 230 Principles of Accounting I ..... 5
ACCT 231 Principles of Accounting II ..... 5
ECON 260 Business Statistics ..... 5
ECON 272 Principles of Economics-Micro ..... 5
ECON 310 Quantitative Methods and Applications ..... 5
MGMT 280 Communication for Business ..... 5
Choose one of the following two courses: ..... 5
MGMT 320 Global Environment of Business
ECON 330 Int'l Economic Events and Business Decisions
FINC 340 Business Finance ..... 5
MKTG 350 Introduction to Marketing ..... 5
OPER 360 Manufacturing and Service Operations ..... 5
bUEN 370 Business and International Law ..... 5
MGMT 380 Principles of Management ..... 5
MGMT 489 Business Policy and Strategy ..... 5
IV. Major Requirements*
Upper division business/economics ..... 25
Individualized business majors must complete at least 25 credits of upper-divisionwork in business and/or economics from at least three different disciplines, selectedwith an adviser's approval. At least 10 of the credits must be 400 -level courses.
V. Additional Requirements
General electives to total 180 ..... 15
Please note: Internships and independent studies may not be used to satisfy a major require-ment.
*Major requirements must earn a C - grade or better.

## International Business

C. Patrick Fleenor, PhD, Program Director

## Objectives

The international business major prepares students for careers with firms engaged in international business. Emphasis is placed on perceiving the problems and opportunities of operating in an international environment.

## Degree Offered

Bachelor of Arts in Business Administration

Major Offered

International Business

## Minor Offered

International Business

## Bachelor of Arts in Business Administration Major in International Business

In order to earn the bachelor of arts in business administration degree with a major in international business, students must complete a minimum of 180 quarter credits with a cumulative and major/program grade point average of 2.25 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
MATH 130 Elements of Calculus for Business (or MATH 134)* ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Lab Science ..... 5
Social Science I (not economics) ..... 5
Social Science II (ECON 271 required)* ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary satisfied within major
Senior Synthesis satisfied by MGMT 489
*Major requirements and must earn a C - grade or better.See detailed core curriculum information in this bulletin.
II. Additional ASBE Requirements
Non-business elective (or MATH 118*) ..... 5
CSSE 103 Introduction to Computers and Application* ..... 5
III. ASBE Business Foundation Requirements*
Sixty-five credits, including:
ACCT 230 Principles of Accounting I ..... 5
ACCT 231 Principles of Accounting II ..... 5
ECON 260 Business Statistics ..... 5
ECON 272 Principles of Economics-Micro ..... 5
ECON 310 Quantitative Methods and Applications ..... 5
MGMT 280 Communication for Business ..... 5
Choose one of the following two courses: ..... 5
MGMT 320 Global Environment of Business
ECON 330 Int'l Economic Events and Business Decisions
FINC 340 Business Finance ..... 5
MKTG 350 Introduction to Marketing ..... 5
OPER 360 Manufacturing and Service Operations ..... 5
BUEN 370 Business and International Law ..... 5
MGMT 380 Principles of Management ..... 5
MGMT 489 Business Policy and Strategy ..... 5
IV. Major Requirements*
Twenty-five upper-division credits, plus supplemental activities:
ECON 386 International Business Enterprise ..... 5
MGMT 486 International Management ..... 5
Electives (Choose two from BUEN 476, FINC 446, MKTG 456) ..... 10
Elective Business/economics with an international focus ..... 5
V. Additional Requirements
General electives to total 180 ..... 15Supplemental activities may satisfy general elective requirements.

## VI. Supplemental Activities

Choose two activities from the following four:

1. Demonstrate competency in a foreign language through the 135 level. This competency is ordinarily achieved by successful completion of the three-course sequence: 115,125 , and 135 . No courses in the sequence may be taken on a passfail, correspondence, or audit basis. Placement into other than the beginning course of the sequence is achieved by acceptable performance on the Foreign Language Competency Examination. See the foreign language department for details on the examinations. Latin and other languages not in use will not be accepted.
2. A two-quarter, five-credit internship with a company involved in international business in the Seattle area, approved by the Albers Placement Center.
3. A minimum of one quarter ( 15 quarter credits) of related studies abroad in an acceptable program. The course work must be approved prior to study abroad by the Albers School and Seattle University.
4. International studies minor.

Please note: Internships and independent studies may not be used to satisfy a major requirement.
*Major requirements must earn a C- grade or better.

## Management

Patrick Fleenor, PhD, Program Director

## Objectives

Management is a critical function for every organization, and people trained in management play this important role in organizations of every size and type. The skills, techniques, and theories acquired by the management major lead to jobs in business, government, and the non-profit sector. People who plan to establish their own firms or to become part of a family-owned firm also pursue a management major. Coursework in this major helps individuals learn to a) motivate, lead, and develop others; b) structure organizations capable of meeting both profit and social responsibility goals; c) work well in accomplishing work individually and through others; d) communicate accurately; and e) develop a strategic perspective on organization.

## Degree Offered

Bachelor of Arts in Business Administration

## Major Offered

Management

## Bachelor of Arts in Business Administration Major in Management

To earn the bachelor of arts in business administration degree with a major in management, students must complete a minimum of 180 quarter credits with a cumulative and major/ program grade point average of 2.25 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ............................................................................... 5
PHIL 110 Introduction to Philosophy and Critical Thinking .............................. 5
Choose one of the following two courses: ...................................................................... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ................................................................ 5
MATH 130 Elements of Calculus for Business (or MATH 134)* .......................... 5
FINR 120 or approved fine arts alternative ........................................................ 5
PHIL 220 Philosophy of the Human Person ....................................................... 5
Lab Science ...................................................................................................... 5
Social Science I (not economics) .......................................................................... 5
Social Science II (ECON 271 required)* ................................................................. 5
Theology and Religious Studies Phase II (200-299) ................................................. 5
Ethics (upper division) .......................................................................................... 5
Theology and Religious Studies Phase III (300-399) ............................................... 5
Interdisciplinary satisfied within major
Senior Synthesis satisfied by MGMT 489
*Major requirements and must earn a C - grade or better.
See detailed core curriculum information in this bulletin.
II. ASBE Arts and Sciences Requirements
Non-business Elective (or MATH 118*) ..... 5
CSSE 103 Introduction to Computers and Applications* ..... 5
III. ASBE Business Foundation Requirements*
Sixty-five credits, including:
ACCT 230 Principles of Accounting I ..... 5
ACCT 231 Principles of Accounting II ..... 5
ECON 260 Business Statistics ..... 5
ECON 272 Principles of Economics-Micro ..... 5
ECON 310 Quantitative Methods and Applications ..... 5
MGMT 280 Communication for Business ..... 5
Choose one of the following two courses: ..... 5
MGMT 320 Global Environment of Business
ECON 330 Int'l Economic Events and Business Decisions
FINC 340 Business Finance ..... 5
MKTG 350 Introduction to Marketing ..... 5
OPER 360 Manufacturing and Service Operations ..... 5
BUEN 370 Business and International Law ..... 5
MGMT 380 Principles of Management ..... 5
MGMT 489 Business Policy and Strategy ..... 5
IV. Major Requirements*
Twenty-five credits, including:
MGMT 383 Human Resource Management ..... 5
MGMT 471 Adventure Based Leadership Seminar ..... 5
MGMT Electives ..... 15(Choose from MGMT 320**, 382, 479, 481, 485, 486, OPER 466,or other approved $300-400$-level management courses.)
V. Additional Requirements
General electives to total 180 ..... 15
Please note: Internships and independent studies may not be used to satisfy a major requirement.
*Major requirements must earn a C - grade or better.
**When ECON 330 satisfies ASBE business foundation requirements, MGMT 320 is an approved elective.

## Marketing

Rex Toh, PhD, Program Director

## Objectives

Marketing is the study of the flow of goods and services to ultimate consumers and users. Career opportunities in marketing are found in manufacturing, wholesaling and retailing, marketing research, and in the promotional areas of advertising and personal selling.

## Degree Offered

Bachelor of Arts in Business Administration

## Major Offered <br> Marketing <br> Bachelor of Arts in Business Administration Major in Marketing

In order to earn the bachelor of arts in business administration degree with a major in marketing, students must complete a minimum of 180 quarter credits with a cumulative and major/program grade point average of 2.25 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English .............................................................................. 5
PHIL 110 Introduction to Philosophy and Critical Thinking ............................... 5
Choose one of the following two courses: ....................................................................... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ................................................................. 5
MATH 130 Elements of Calculus for Business (or MATH 134)* ........................... 5
FINR 120 or approved fine arts alternate .......................................................... 5
PHIL 220 Philosophy of the Human Person ......................................................... 5
Lab Science ........................................................................................................ 5
Social Science I (not economics) ............................................................................. 5
Social Science II(ECON 271 required)* ................................................................... 5
Theology and Religious Studies Phase II(200-299) ................................................... 5
Ethics (upper division) ............................................................................................ 5
Theology and Religious Studies Phase III(300-399) .................................................. 5
Interdisciplinary satified within major.
Senior Synthesis satisfied by MGMT 489
*Major requirements and must earn a C- grade or better.
See detailed core curriculum information in this bulletin.

## II. Additional ASBE Requirements

Non-business elective (or MATH 118*) .................................................................... 5
CSSE 103 Introduction to Computers and Applications*..................................... 5
III. ASBE Business Foundation Requirements*
Sixty-five credits, including:
ACCT 230 Principles of Accounting I ..... 5
ACCT 231 Principles of Accounting II ..... 5
ECON 260 Business Statistics ..... 5
ECON 272 Principles of Economics-Micro ..... 5
ECON 310 Quantitative Methods and Applications ..... 5
MGMT 280 Communication for Business ..... 5
Choose one of the following two courses: ..... 5
MGMT 320 Global Environment of Business
ECON 330 Int'l Economic Events and Business Decisions
FINC 340 Business Finance ..... 5
MKTG 350 Introduction to Marketing ..... 5
OPER 360 Manufacturing and Service Operations ..... 5
BUEN 370 Business and International Law ..... 5
MGMT 380 Principles of Management ..... 5
MGMT 489 Business Policy and Strategy ..... 5
IV. Major Requirements*
Twenty-five credits, including:
MKTG 351 Buyer Behavior ..... 5
MKTG 451 Marketing Research ..... 5
MKTG Electives ..... 15(Choose from MKTG 352, 353, 354, 355, 356, 452, 456, or otherapproved $300-$ or $400-$ level marketing courses.)
V. Additional Requirements
General electives to total 180 ..... 15
Please Note: 1. ECON 374, 472, 473, and OPER 361 and 362 are strongly recommended as general electives. 2.Internships and independent studies may not be used to satisfy a major requirement.
*Major requirements must earn a C - grade or better.

## Operations

Greg Magnan, PhD, Program Director

## Objectives

The operations management major was developed in response to the growing demand for professionals who have the ability to lead and support efforts aimed at improving quality, service, delivery, and productivity. The field of operations management involves the factors that determine global competitiveness in both manufacturing and service industries, such as increasing customer satisfaction, increasing flexibility and reducing costs. Career areas for operations management graduates include hospital administration, purchasing and supply management, inventory management, process improvement, production planning, quality assurance and control, and logistics. Course work emphasizes the management of processes and provides students with technical and people skills, theoretical background, problem solving ability, communication skills, and hands-on exposure to industry practices.

## Degree Offered

Bachelor of Arts in Business Administration

## Major Offered

Operations

## Bachelor of Arts in Business Administration Major in Operations

In order to earn the bachelor of arts in business administration degree with a major in operations, students must complete a minimum of 180 quarter credits with a cumulative and major/program grade point average of 2.25 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
MATH 130 Elements of Calculus for Business (or MATH 134)* ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Lab Science ..... 5
Social Science I (not economics) ..... 5
Social Science II(ECON 271 required)* ..... 5
Theology and Religious Studies Phase II(200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary satified within majorSenior Synthesis satisfied by MGMT 489
See detailed core curriculum information in this bulletin

[^3]II. Additional ASBE Requirements
Non-business elective (or MATH 118*) ..... 5
CSSE 103 Introduction to Computers and Applications* ..... 5
III. ASBE Business Foundation Requirements*
Sixty-five credits, including:
ACCT 230 Principles of Accounting I ..... 5
ACCT 231 Principles of Accounting II ..... 5
ECON 260 Business Statistics ..... 5
ECON 272 Principles of Economics-Micro ..... 5
ECON 310 Quantitative Methods and Applications ..... 5
MGMT 280 Communication for Business ..... 5
Choose one of the following two courses: ..... 5
MGMT 320 Global Environment of Business
ECON 330 Int'l Economic Events and Business Decisions
FINC 340 Business Finance ..... 5
MKTG 350 Introduction to Marketing ..... 5
OPER 360 Manufacturing and Service Operations ..... 5
BUEN 370 Business and International Law ..... 5
MGMT 380 Principles of Management ..... 5
MGMT 489 Business Policy and Strategy ..... 5
IV. Major Requirements*
Twenty-five credits, including:
OPER 361 Operations Strategy ..... 5
OPER 362 Managing Processes ..... 5
Choose three of the following courses (at least two must have OPER prefixes and at least one must be a 400 -level): ..... 15
ACCT 330 Cost Accounting
MGMT 485 Management of ChangeMGMT 383 Human Resource Management
MGMT 471 Adventure-based Leadership Seminar
MKTG 353 Sales Managment
MKTG 356 Transportation and Logistics
OPER 363 Production Planning and Control Systems
OPER 442 Manufacturing Processes
OPER 464 Supply Chain Managment
OPER 465 International Study Tour in Operations Managment
OPER 466 Project Management
OPER 491 Special topics in Operations Management
OPER 495 Operations Management Internship
V. Additional RequirementsGeneral electives to total 18015
*Major requirements and must earn a C- grade or better.Please Note: 1. Students are strongly encouraged to develop their program with advisersand faculty. An internship is highly recommended for students with limited work experi-ence. 2. Internships and independent studies will not satisfy a major requirement.

# Risk Management 

Barbara M. Yates, PhD, Program Director

## Objectives

The risk management major provides students with an understanding of the various risks firms and individuals can face: operating risks, legal exposures, political risks, and financial and market related risks. In addition to identifying and quantifying risk, students study methods to manage risk through insurance, loss prevention, hedging and other techniques. Graduates of the program are prepared to take positions in risk management in corporations, financial institutions or government agencies, as well as firms focusing on controlling risk, such as insurance companies and risk management consulting firms. The major also serves as an excellent platform beyond risk management and insurance for graduates pursuing careers in management, marketing, and finance.

## Degree Offered

Bachelor of Arts in Business Administration

## Major Offered

Risk Management

## Bachelor of Arts in Business Administration Major in Risk Management

In order to earn the bachelor of arts in business administration degree with a major in risk management, students must complete a minimum of 180 quarter credits with a cumulative and major/program grade point average of 2.25 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English .............................................................................. 5
PHIL 110 Introduction to Philosophy and Critical Thinking ............................... 5
Choose one of the following two courses: ...................................................................... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ................................................................. 5
MATH 130 Elements of Calculus for Business (or MATH 134)* .......................... 5
FINR 120 or approved fine arts alternate.......................................................... 5
PHIL 220 Philosophy of the Human Person ........................................................ 5
Lab Science ........................................................................................................ 5
Social Science I (not economics) ............................................................................ 5
Social Science II(ECON 271 required)* .................................................................... 5
Theology and Religious Studies Phase II(200-299) ................................................... 5
Ethics (upper division) ............................................................................................... 5
Theology and Religious Studies Phase III(300-399) ................................................. 5
Interdisciplinary satified within major
Senior Synthesis satisfied by MGMT 489
See detailed core curriculum information in this bulletin

* Major requirements and must earn a C- grade or better.
II. Additional ASBE Requirements
Non-business elective (or MATH 118*) ..... 5
CSSE 103 Introduction to Computers and Applications* ..... 5
III. ASBE Business Foundation Requirements*
Sixty-five credits, including:
ACCT 230 Principles of Accounting I ..... 5
ACCT 231 Principles of Accounting II ..... 5
ECON 260 Business Statistics ..... 5
ECON 272 Principles of Economics-Micro ..... 5
ECON 310 Quantitative Methods and Applications ..... 5
MGMT 280 Communication for Business ..... 5
Choose one of the following two courses: ..... 5
MGMT 320 Global Environment of Business
ECON 330 Int'l Economic Events and Business Decisions
FINC 340 Business Finance ..... 5
MKTG 350 Introduction to Marketing ..... 5
OPER 360 Manufacturing and Service Operations ..... 5
BUEN 370 Business and International Law ..... 5
MGMT 380 Principles of Management ..... 5
MGMT 489 Business Policy and Strategy ..... 5
IV. Major Requirements*
Twenty-five credits, including:
FINC 440 Risk Assessment and Analysis ..... 5
FINC 445 Financial Risk Management ..... 5
FINC 450 Enterprise Risk Management ..... 5
FING Electives ..... 10(Choose from FINC 342, 344, 441, 443, 446, or other approvedupper-division finance courses. An appropriate course in law orquantitative methods may serve as one of the electives with thepermission of the department chair.)
In addition, students must complete an approved internship in the risk management and insurance field. The internship need not be for credit.


## V. Additional Requirements

$\qquad$General electives to total 18015
Please Note: 1. Risk management students must take ECON 330 rather than MGMT 320 or take ECON 330 as one of the two elective courses in the major. 2. Internships and independent studies will not satisfy a major requirement.

[^4]
## Minor in Business Administration

To earn a minor in business administration, students must complete a set of seven business courses beyond the non-business prerequisite courses in mathematics, computer science, and economics. One of the mathematics courses and one of the economics courses could fulfill university core requirements.

## Prerequisite courses:

| MATH 130 | Elements of Calculus for Business (or MATH 134) |
| :--- | :--- |
| MGMT 280 | Communication for Business |
| ECON 271 | Principles of Economics-Macro |
| ECON 272 | Principles of Economics-Micro |
| CSSE 103 | Introduction to Computers and Applications |

## Business courses:

$$
\text { ECON } 260 \text { Business Statistics .............................................................................. } 5
$$

ACCT 230 Principles of Accounting I ..... 5
ACCT 231 Principles of Accounting II ..... 5
FINC 340 Business Finance ..... 5
MKTG 350 Introduction to Marketing ..... 5
MGMT 380 Principles of Management ..... 5
300- 400 -level business course for which prerequisites have been met. ..... 5
(A course dealing with international aspects of business is strongly recommended.)

Please Note: 1. Courses used toward a minor in business administration are subject to the same grade minimums as those in a business administration major. 2. Students applying for the minor are required to take at least 20 credits in business from Seattle University. 3. Students pursuing a BABA degree may not minor in business administration. See policy for minors on p. 43.

## Minor in Economics

To earn a minor in economics, students must complete thirty credits of economics, including the following:
ECON 271 Principles of Economics-Macro ..... 5
ECON 272 Principles of Economics-Micro ..... 5
ECON 330 International Economic Events and Business Decisions ..... 5
ECON 374 Intermediate Microeconomics. ..... 5
ECON Electives 300-400 level (see adviser) ..... 10

Please Note: 1. Courses used toward a minor in economics are subject to the same grade minimums as those in an economics major. 2. ECON 377,386 and 479 will not satisfy the upper division economics electives. See policy for minors on p. 43.

## Minor in International Business

Students seeking the minor must take as part of their university core, major, or minor requirements, the following:

## Prerequisite Courses:

MATH 130 Elements of Calculus for Business (or MATH 134)
MGMT 280 Communication for Business
ECON 271 Principles of Economics: Macro
ECON 272 Principles of Economics: Micro
CSSE 103 Introduction to Computers and Applications

## Business Foundation Courses:

ECON 260 Business Statistics ..... 5
ACCT 230 Principles of Accounting I. ..... 5
ACCT 231 Principles of Accounting II ..... 5
FINC 340 Business Finance ..... 5
MKTG 350 Introduction to Marketing ..... 5
MGMT 380 Principles of Management ..... 5
Minor Requirements:
ECON 386 International Business Enterprise ..... 5
MGMT 486 International Management ..... 5
Choose four courses from the following options: ..... 20
ECON 330 International Economic Events and Business Decisions
MGMT 320 Global Environment of BusinessBUEN 370 Business and International Law
BUEN 476 International Law
FINC 446 International Corporate and Trade Finance
MKTG 456 International Marketing
Other international electives approved by the director of international business

## Supplemental Activities:

Choose one supplemental activity from the following four:

1. Demonstrate competency in a foreign language throught the 135 level. This competency is ordinarily achieved by successful completion of the three-course sequence: $\mathbf{1 1 5 , 1 2 5}$, and 135. No course in the sequence can be taken pass-fail, corresondence, or by audit basis. Placement into other than the beginning course of the sequence is achieved by acceptable performance on the Foreign Language Competency Examination. Latin and other languages not in use will not be accepted.
2. A five-credit internship with a company involved in international business approved by the Albers Placement Center.
3. An international study tour sponsored by the Albers School of Business and Economics.
4. A minimum of one quarter ( 15 quarter credits) of related studies abroad in an acceptable program. The course work must be approved prior to study abroad by the Albers School and Seattle University.
Please Note: 1. Courses used toward a minor in international business are subject to the same grade minimums as those in an international business major. 2. Students applying for the minor are required to take at least 20 credits in international business at Seattle University. See policy for minors on p. 43.

## Double Concentration

Students pursuing a BABA degree may earn a double concentration in two areas of business by completing a minimum of 190 credits and the degree requirements for both majors. Students must complete at least 25 credits in each major. Courses may not satisfy requirements for both concentration areas. If the same course is required in both majors, students must substitute another elective course from one of the major areas. Individualized major may not be one of the areas for double concentration.

## Accelerated Programs

## Five-Year BABA-MBA Program

The Albers School of Business and Economics offers an opportunity for academically superior undergraduates to accelerate their undergraduate work and be granted early admission to the MBA program. The program allows students to complete a bachelor of arts in business administration and a master of business administration in a five-year time span. This program is open to full-time undergraduates with a minimum 3.4 grade point average. Part-time undergraduates and transfer students can participate in the program on a modified schedule. Interested students should contact the undergraduate program chair.

## Five-Year Program: BA ECON with Business Administration Minor and MBA

The Albers School of Business and Economics offers an opportunity for academically superior undergraduates to accelerate their undergraduate work and be granted early admission to the MBA program. The program allows students to complete a bachelor of arts in economics, a minor in business administration and a master of business administration in a five-year span. This program is open to full-time undergraduates with a minimum 3.4 grade point average. Part-time undergraduates and transfer students can participate in the program on a modified schedule. Interested students should contact the undergraduate program chair.

## Five-Year Program: Bachelor's Degree and Master of Arts in Applied Economics (MAE)

The Albers School of Business and Economics offers an opportunity for academically superior undergraduates to accelerate their undergraduate work and be granted early admission to the MAE program. The program allows students to complete a bachelor's degree in one of many majors and a master of arts in applied economics in a five-year period. This program is open to full-time undergraduates with at least a 3.4 grade point average. Part-time undergraduates and transfer students can participate in the program on a modified schedule. Interested students should contact the undergraduate program chair.

## Certificate of Post-Baccalaureate Studies

The Albers School of Business and Economics offers 1) an undergraduate certificate in business for students with a bachelor's degree in a non-business area and 2) certificates in specific disciplines for students with a bachelor's degree in business. The certificates of post-baccalaureate studies in business provide an opportunity for graduates of nonbusiness undergraduate programs to develop expertise and acquire credentials in the business area while earning college credits. The curriculum requires between six and 13
courses, depending on prior course work. It largely replicates the required courses for a minor in business. The academic credit may also be applicable to other degree program requirements. The certificate of post-baccalaureate studies in accounting, business economics, finance, international business, purchasing, quality, manufacturing management, and other fields provide opportunities for qualified business graduates to develop expertise and acquire a credential in an area of specialization beyond the bachelor's in business degree while earning college credits. The curriculum consists of a selection of six or seven undergraduate courses, at least four of which must be in the discipline named in the certificate. To avoid duplication of previous course work, courses in related disciplines may be substituted for classes in the named discipline.
The program is open to graduates of regionally accredited bachelor's programs only. The application process will require preparation of an application form, payment of fees, and submission of transcripts. For admission, a student's academic performance must be equal to or better than the standards for admission to and graduation from the Seattle University BABA program. Seattle University graduates usually will be considered automatically eligible for the program. Students will register as regular certificate-seeking undergraduate students at Seattle University and must earn a 2.25 cumulative grade point average in the courses applied to the certificate. In addition, students must earn a C - grade or better in each course required for the certificate. In the final term of coursework for the certificate the student files a certificate application with the registrar. Deadlines are: for fall completion, apply by October 30 ; for winter, January 30 ; for spring, April 30 ; for summer, July 30. For more information about these certificate programs, contact the director of undergraduate programs in the Albers School.

## Certificate in Business Education and/or Marketing

The School of Education, in cooperation with the Albers School of Business and Economics, offers teacher certification in business education and/or marketing. Before applying for this certificate program, interested students should speak with the chairperson of teacher education in the School of Education concerning course requirements that cannot be met at Seattle University.

## Business and Economics Courses

ACCT 230 Principles of Accounting I (Financial) 5
Introduction to financial accounting concepts with emphasis on the development of the student's ability to understand and interpret financial statements of business entities. Prerequisite: Sophomore standing. (fall, winter, spring)
ACCT 231 Principles of Accounting II (Managerial) 5 Introduction to the use of accounting information for decision-making in planning and controlling the operation of business organizations. Prerequisites: ACCT 230, CSSE 103, and sophomore standing. (fall, winter, spring)
ACCT 301 Accounting: Information Systems, Tools and Concepts 5 The study and application of computer software tools to solve a wide range of accountingrelated business problems. Problems will include those found in the areas of intermediate financial, managerial, cost, tax accounting, and auditing. Emphasis will be a hands-on application approach to computer-based accounting information systems data analysis. Course material will also include current readings for both accountants and business managers. Problem solutions, while being computationally intensive, will also develop written and oral communication skills. Prerequisites: ACCT 231, MGMT 280, junior standing in the Albers School.

## ACCT 311 Infermediate Accounting I <br> 5

Theory and development of accounting principles; evolution of accounting theory and practice relating to the assets of the entity and the measurement and reporting of periodic income. Introduction to international accounting issues and accounting changes. Emphasis on interpreting professional accounting standards and on further developing communications and computer skills. Prerequisites: ACCT 301.

## ACCT 312 Intermediate Accounting II

5
Evolution of accounting theory and practice relating to liabilities and owners' equities, including accounting for income taxes, leases, and pensions. Coverage of the statement of cash flows and financial disclosures. Expand knowledge of international accounting issues and changes. Continued emphasis on interpreting and applying professional accounting standards and on developing communications and computer skills. Prerequisite: ACCT 311.

ACCT 330 Cost Accounting
Determination of manufacturing costs in service and manufacturing environments. The course will focus on cost determination in job order and process cost systems, including standard cost measurement. Introduction to methods of cost control. An emphasis on cost information for decion making, including ethical issues, and further development of communication and computer skills. Prerequisites: ACCT 231, MGMT 280, and junior standing in the Albers School.

## ACCT 336 Federal Income Tax I

Introduction to a broad range of tax concepts and types of taxpayers. Emphasis on the role of taxation in the business decision-making process. Provides students with the ability to conduct basic tax research and tax planning. Specific tax topics include gross income and deductions, compensation, property transactions, and types of business entities. Prerequisites: ACCT 231, MGMT 280, and junior standing in the Albers School.

## ACCT 420 Controllership: Integration of the Accounting Function

The objective of this course is to develop an integrated knowledge of accounting and enterprise management to a level which provides a conceptual framework for critically evaluating an accounting stystem's effectiveness in meeting the accounting information needs of enterprise from a strategic to operational level. Topics will be addressed using case studies, current readings, group projects, and guest practitioners, with emphasis given to the continued development of skills in critical thinking, decision making, and both oral and written communication. Prerequisities: ACCT 301, 311, 312, 330, and 336.

## ACCT 430 Advanced Cost Accounting

An extension of ACCT 330 (Cost Accounting), this course focuses on advanced product costing systems, as well as current and emerging issues in cost management topics. Topics will be addressed using case studies, current readings, and group projects, with emphasis given to the continued development of skills in critical thinking, decision making, and both oral and written communication. Prerequisites: ECON 272, ECON 310, ACCT 330, FINC 340, senior standing.

## ACCT 431 Advanced Financial Accounting <br> 5

Theory and development of financial accounting practices associated with international transactions, business combinations, and non-profit organizations. Particular emphasis on the computerized preparation of consolidated financial statements. Continued development of students' oral and written communication skills. Prerequisite: ACCT 312.

## ACCT 432 Issues in Financial Reporting

An in-depth examination of financial reporting practices from a user's perspective. Emphasis on distinguishing between accounting recognition and supplementary disclosures of financial conditions and events. Coverage of contemporary accounting topics, including off-balance sheet liabilities, intercorporate investments, and international accounting practices. Prerequisites: ACCT 231 and FINC 340. Does not satisfy requirements for accounting majors.

## ACCT 435 Auditing

Purpose, scope, concepts, and methods used in examining and attesting to financial statements. Current issues concerning professionalism, the role of the public accountant, and auditing matters in international accounting. An emphasis on effective written communication in the audit function. Prerequisite: ACCT 312.

## ACCT 436 Federal Income Tax II

Study of advanced topics in federal taxation, including formation, operation, and dissolution of the business entity. Expand knowledge base as to choice of entity and special tax subjects. Emphasizes the importance of ethical considerations, competent tax, and thoughtful tax planning. Course requires participation in the Volunteer Income Tax Assistance program which includes assisting taxpayers with preparation of their individual income tax returns with the supervision of tax professionals. Emphasis is given to the development of communications skills in a professional-to-client environment. The taxpayer assistance component of the course is spread over parts of the winter and spring quarters. Students receive an " N " grade for winter quarter and the course grade spring quarter. Prerequisite: ACCT 301 and ACCT 336.

## ACCT 437 Accounting Systems and Communications

Study of accounting information systems and their managerial aspects, with a signifcant empahasis on oral and written business communications skill development. Topics include computer technology, systms controls, systems analysis, and design, as well as specific applications in accounts payable, inventory, payroll, billing, cash, and property. Prerequisites: ACCT 330, 312, CSSE 103.
ACCT 491 Special Topics 2 to 5
ACCT 495 Internship 1 to 5
Open to senior business majors with adviser's approval. Mandatory CR/F and will not satisfy a major requirement.
ACCT 496 Independent Study 1 to 5
ACCT 497 Directed Reading 1 to 5
ACCT 498 Directed Research 1 to 5
ACCT 496, 497, 498 are supervised individual study. Open to senior business majors with the approval of the student's adviser. Mandatory CR/F and will not satisfy a major requirement.
BUEN 291 Special Topics 1 to 5
BUEN $370 \quad$ Business and International Law 5
Includes traditional legal issues, including nature and development of law, structure and functions of the courts, civil and criminal procedure, and contracts. The course will focus on the legal environment that exists for U.S. businesses because of the increased international business activities. Prerequisites: junior standing in the Albers School. (fall, winter, spring)

## BUEN 476 International Law <br> 5

Substantial focus on international contracts, specifically laws relating to international sales, commercial transactions, shipping, letters of credit, methods of payment and resolution of international disputes. Lectures include discussion of the General Agreement on Tariffs and Trade, import duties, export restrictions and use of foreign representatives. Prerequisites: BUEN 370.

| BUEN 491 | Special Topics | 2 to 5 |
| :--- | :--- | :--- |
| BUEN 495 | Internship | 1 to 5 |

Open to senior business majors with adviser's approval. Mandatory CR/F and will not satisfy a major requirement.
BUEN 496 Independent Study 1 to 5
BUEN 497 Directed Reading 1 to 5
BUEN 498 Directed Research 1 to 5
Supervised individual work. Open to senior business majors with the approval of the student's adviser. Mandatory CR/F and will not satisfy a major requirement.

## ECON 260 Business Statistics 5

Introduces the business and economics student to basic statistical procedures, concepts, and computer applications used in the business world. Instruction in descriptive statistics, probability, decision theory, probability distributions, sampling distributions, statistical inference, chi-square analysis, and correlation. Prerequisites: MATH 130, 134, or equivalent, CSSE 103, sophomore standing.(fall, winter, spring)

## ECON 271 Principles of Economics-Macro

Organization, operation, and control of the American economy in its financial and sociopolitical settings; problems of inflation, unemployment, taxation, the public debt, money, and banking growth. (fall, winter, spring)

ECON 272 Principles of Economics—Micro 5
Operation of the American economy with emphasis on prices, wages, production, and distribution of income and wealth; problems of the world economy. (fall, winter, spring)

## ECON 310 Quantitative Methods and Applications

 5A continuation of ECON 260 with particular emphasis on the following topics: regression analysis, analysis of variance, reliability and validity, and linear programming. Major emphasis will be placed on computer applications of the quantitative methods applicable to business functional areas and on the enhancement of the student's communication, analytical, and computer skills. Prerequisite: CSSE 103 and ECON 260. (fall, winter, spring)
ECON 330 International Economic Events and Business Decisions 5
Develops the economic theory necessary to understand how the international macroeconomy works and influences the behavior and success of business. Emphasis on the impact of international macroeconomic events and how those events affect a firm's ability to compete. Prerequisites: ECON 271. Serves as intermediate macroeconomics course for economics majors and minors. (fall, winter, spring)

## ECON 370 American Economic History

 5A study of the key developments in American economic history; application of economic analysis to historical data and events; development of economic institutions. Does not satisfy ECON elective for business economics majors. Prerequisites: ECON 271, 272.

ECON 374 Intermediate Microeconomics 5

Demand, supply, costs, and market prices under competitive and imperfectly competitive market conditions. Relationships between price and costs; income and its functional distributions in a capitalistic society. Prerequisite: ECON 272; MATH 130 or MATH 134.

## ECON 376 Economic Development

Developing nations and agriculture, industry, population, education, technology, exports, imports, capital and savings, unemployment. Commodity agreements. Special preferences. Foreign aid. U.N.C.T.A.D. Prospects and limits. Prerequisite: ECON 271, 272.
ECON 377 American Competitiveness 5
Productivity, distribution, investment, technology, and trade characteristics of the U.S. economy. Comparison with Japan and Europe. Consideration of the role of government: ethical and moral dimensions. Prerequisite: ECON 271 or 272. Interdisciplinary core course. Does not satisfy requirement toward business economics major, economics major or minor.

## ECON 379 Comparative Economic Systems

Economic systems in theory and practice. Classical, Marxian, neoclassical, Keynesian, post-Keynesian theories. Soviet agricultural and industrial organization and operation. Market socialism. Future trends. Prerequisites: ECON 271 and 272.

ECON 386 International Business Enterprise 5
Examines changes in the international competitive environment and how business should respond to remain competitive in the global marketplace. Prerequisites: ECON 271 and 272. For international business, business economics, and international studies majors; does not fill requirement for economics majors or minors.
ECON 391 Special Topics 1 to 5

ECON 463 Applied Econometrics 5
Study of the theory and application of econometrics for students who need to understand and use regression, generalized least squares, and simultaneous equations. Prerequisites: MATH 130 or 134; ECON 310.

## ECON 468 Natural Resource and Environmental Economics 5

 Covers the economic analysis related to natural resource use, including depletable and renewable resources. Environmental topics include pollution, preservation, conservation, and development. Prerequisites: ECON 271 and 272.
## ECON 470 History of Economic Thought 5

Major historical developments in economic thought, ancient to contemporary, Christian influence, mercantilism, laissez faire; German and Austrian schools, Marx and socialists; Keynes and neo-Keynesian analysis. Prerequisites: ECON 271 and 272. Can serve as Senior Synthesis for economics majors. Does not satisfy ECON elective for business economics majors.

ECON 471 Government Finance 5
Revenues, expenditures, and debts of federal, state, and local governments; public-sector pricing and investment; government finance as means for social reform; shifting and incidence of taxes. Prerequisites: ECON 271 and 272.
ECON 472 International Trade 5
Pattern, organization, and promotion of U.S. and world trade. Trade theories. Exchange rates. Foreign prices and payments. Protection and free trade. G.A.T.T. European Community. Multinationals in foreign trade. Prerequisites: ECON 271 and 272.
ECON 473 International Macroeconomics and Finance 5
Impact of international trade and finance on the macroeconomy and government policy. Topics include exchange rate determination, the balance of payments, operations of the international monetary system. Prerequisites: ECON 271 and 272. ECON 330 recommended.

ECON 474 Forecasting Business Conditions 5
Introduction to casual and ad hoc time series methods of forecasting utilized by business firms. Regression, exponential smoothing, decomposition, and Box Jenkins methods are included. Prerequisites: ECON 271, 272 and 310.

## ECON 475 Industrial Organization

Analysis of the market structure of American business and effects of different market structures on pricing, marketing, innovation, and profit seeking. Prerequisites: ECON 271 and 272. ECON 374 recommended.
ECON 476 Labor Economics 5
Survey of the economics of industrial relations; effects of industrial changes on labor, hours, and wages; employment and unemployment; trade unionism and labor legislation. Prerequisites: ECON 271 and 272.

## ECON $478 \quad$ Urban/Regional Economics 5

The causes and consequences of the interdependencies of firms, individuals, households, and governmental units within the constrained space of urban areas. Problems of land, housing, transportation, labor, and public services. Prerequisite: ECON 272.

## ECON 485 Topics in Macroeconomics <br> 5

Topics such as business cycles, growth theory and policy, open economy issues. Prerequisites: ECON 272, ECON 330.

## ECON 489 Senior Research 5

An advanced course providing the opportunity for students to pursue topics in breadth and depth, and to apply the tools of economic analysis to current issues in national and international economic policy. Prerequisite: permission of department chair and three faculty member committee. Limited to economics majors fulfilling Senior Synthesis requirement. Does not satisfy economics elective for business economics major or economics minor.
ECON $491 \quad$ Special Topics 2 to 5

ECON 495 Internship
1 to 5
Open to senior economics majors with adviser's approval. Mandatory CR/F and will not satisfy a major requirement.

## ECON 496 Independent Study 1 to 5

ECON 497 Directed Reading 1 to 5
ECON 498 Directed Research 1 to 5
ECON 496, 497, 498 are supervised individual work. Open to senior economics majors with approval of adviser. Must be taken CR/F as non-major elective and will not satisfy a major requirement.

## FINC 340 Business Finance 5

Study of the financial policies and practices of business firms; planning, control, and acquisition of short-term and long-term funds; management of assets; evaluation of alternative uses of funds; capital structure of the firm; cost of capital; financing growth and expansion of business firms. Prerequisites: ECON 271, ACCT 231, and junior standing in the Albers School. (fall, winter, spring)

## FINC 342 Intermediate Corporate Finance

Working capital management, advanced capital budgeting, lease versus buy analysis, dividend policy, capital structure theory, long-term sources of finance and contingent claims as they apply to corporate financial management. Prerequisite: FINC 340.

FINC 344 Investments and Portfolio Theory 5
An introduction to financial investments: the theory, practice and empirical research. Emphasis is placed on developing the risk/return relationship. Topics include modern portfolio theory, (CAPM, APT) market efficiency, derivative assets (options, futures), the pricing of contingent claims, and the influence of taxes and inflation. Prerequisite: FINC 340.

## FINC 391

Special Topics
2 to 5
FINC 440 Risk Assessment and Analysis 5
An introduction to the evolution, theory, and economics of risk. Develops emerging concept of enterprise risk management, exploring identification, measurement, prioritization and impact of operational, legal, political and financial/market risks, including next generation risk in a rapidly changing global environment. Application of analytical tools from value at risk models to information systems for risk analysis. Prerequisite: FINC 340.
FINC 441 Case Problems in Finance
Through the use of cases, students develop skills in identifying problems, conducting analysis, and using financial theory for making decisions in simulated business settings. Investigates strategies for linking risk management with overall corporate strategy. Prerequisite: FINC 342.
FINC 443 Financial Institutions and Markets 5
The nature, role, and operation of financial institutions and markets in the economy. The impact on the financial system and industries such as banking and insurance of rapidly changing structural, policy, and international conditions. Focus is on the institutional setting facing businesses today as they cope with financing and risk management concerns. Prerequisites: ECON 271, FINC 340.

## FINC 444 Security Analysis

Analysis of the securities of public entities and private firms from both individual and institutional viewpoints. Prerequisite: FINC 340.
FINC 445 Financial Risk Management
Develops a methodology to establish an organization's risk tolerance policy based on financial capacity and operational strategy. Evaluates risk financing methods and derivative solutions. The use of financial derivatives, including options, futures, swaps and other financial instruments for hedging price, interest rate, currency risks. Explores why all these strategies are not static as business and market conditions change. Prerequisite: FINC 340.
FINC 446 International Corporate and Trade Finance 5
Investigates techniques used to manage the financial activities of a corporation operating in an international environment. Addresses economic exposure of the firm to exchange rate changes, hedging techniques, capital budgeting, international capital markets, techniques of accessing blocked funds, foreign currency options, and other topics. Prerequisites: FINC 340.
FINC 449 Senior Seminar 5
Advanced topics to expose students to recent research in finance in a seminar setting. Topics covered will depend on instructor. Prerequisites: FINC 340, 342, 344.

FINC 450
Enterprise Risk Management
The economics of risk management from a strategic and integrated enterprise perspective, taking into account competitive, technological, regulatory and ethical considerations. Considers options such as loss prevention, loss control, risk transfer, and tools such as risk pools, insurance, self-insurance, captives, non-insurance contracts and reinsurance. Includes dealing with risk through strategic/business planning and mitigating the potential for loss through the decision/policy-making process. Prerequisite: FINC 440.
FINC 491 Special Topics 2 to 5
FINC 495 Internship 1 to 5
Open to senior finance majors with adviser's approval. Mandatory CR/F and will not satisfy major requirement.
FINC 496 Independent Study 1 to 5
FINC 497 Directed Reading 1 to 5
FINC 498 Directed Research 1 to 5
FINC 496, 497 and 498 are supervised individual exploration. Open to senior business majors with the approval of the student's adviser. Mandatory CR/F and will not satisfy a major requirement.
INBU 491 Special Topics 2 to 5

INBU 495 Internship 1 to 5
Open to senior international business majors with adviser's approval. Mandatory $\mathrm{CR} / \mathrm{F}$ and will not satisfy major requirement.
INBU 496 Independent Study 1 to 5
INBU 497 Directed Reading 1 to 5
INBU 498 Directed Research 1 to 5
INBU 496, 497 and 498 are supervised individual work. Open to senior business majors with the approval of the student's adviser. Mandatory CR/F and will not satisfy a major requirement.

## MGMT 280 Communications for Business

5
The purpose of this course is to develop a required skill level in written and oral business presentations so that applications of those skills can be expected in all applicable business core and major courses, including a university-specific common format for written executive summaries, for short oral presentations, and for research reports. Prerequisites: ENGL 110. Business majors only, except by permission. (fall, winter, spring)

## MGMT 320 Global Environment of Business 5

Introduces the major factors(legal/political, economic, competitive, socio-cultural, technological, and natural) in the global environment and examine their individual and interrelated effects on organizational and managerial practices. Provides a framework for understanding organizational action within an increasingly global environment. Prerequisite: junior standing in the Albers School. (fall, winter, spring)

## MGMT 380 Principles of Management <br> 5

Introduces students to the management function of organizations, emphasizing leadership roles and teamwork. Course actvities include discussion of readings, group exercises, cases, and a service project. Students learn basic concepts and tools for solving organizational problems. Prerequisite: junior standing in the Albers School. (fall, winter, spring)
MGMT $382 \quad$ Organizational Behavior 5
Models of organizational behavior, alternative managerial behaviors, developing skills in dealing with people in areas of leadership, motivation, communication skills, conflict, and group processes. Prerequisite: MGMT 380.
MGMT 383 Human Resource Management 5
The role of the human resource department, social and legal environment, human resource planning, recruiting, selection, training, evaluation, compensation, career planning, employee relations, discipline, and organizational exit. Prerequisite: MGMT 380.
MGMT 391 Special Topics 2 to 5
MGMT 471 Adventure-Based Leadership Seminar 5
A leadership development program that utilizes both indoor and outdoor experiential activities to help students develop and practice the fundamentals of effective team building and leadership. Building trust, setting and evaluating goals, group problem solving, and effective interpersonal communications are among the attributes and skills addressed. Prerequisite: MGMT 380.
MGMT 477 Managing Diversity 5
Views dominant and minority work values, and reviews diversity programs. Assists students in discovering the personal and career roles they can play. Prerequisite: MGMT 380.

## MGMT 479 Small Business Management 5

Procedures and problems in starting and operating a successful small business enterprise. Practice skills, service learning-learn by teaching, lead a project. Prerequisite: MGMT 380 and senior standing. (formerly MGMT 481)
MGMT 485 Management of Change 5
Review of forces and factors acting to create change in organizations, relationship between changes in organizations and human reactions, systemic change efforts, resistance to change, planned change models. Prerequisite: MGMT 380.
MGMT 486 International Management 5
Develops understanding of how various business principles, particularly those developed in the United States, apply in diverse international settings. Students will learn the role national culture plays in shaping organizational practices. Prerequisite: MGMT 380.
MGMT 489 Business Policy and Strategy 5
The senior capstone business course. Students integrate and apply knowledge, skills, and experience gained in the university and business course curricula. Critical thinking and analysis are engaged as students make decisions, set goals, and act on information from real business situations. The business situations reflect today's multicultural and international environment. Course methods may include lecture, discussion, case analyses, and individual or group projects. Prerequisites: all business foundation requirements and senior standing. (fall, winter, spring) (formerly MGMT 482)
MGMT 491 Special Topics 2 to 5
MGMT 495 Internship ..... 1 to 5
Open to senior management majors with adviser's approval. Mandatory CR/F and will notsatisfy a major requirement.
MGMT 496 Independent Study ..... 1 to 5
MGMT 497 Directed Reading ..... 1 to 5
MGMT 498 Directed Research ..... 1 to 5
MGMT 496, 497, and 498 are supervised individual exploration. Open to senior businessmajors with the approval of the student's adviser. Mandatory CR/F and will not satisfy amajor requirement.
MKTG 350 Introduction to Marketing ..... 5Survey of institutions and essential functions in the marketing system. Analysis of themarketing mix; product, place, promotion, and price strategies. Prerequisites: juniorstanding in the Albers School. (fall, winter, spring)
MKTG 351 Buyer Behavior ..... 5Application of behavioral sciences to explore consumer and organizational decision-making processes. Study the information processing of consumers, the effects of environ-mental and behavioral influences, and the nature of organizational structure effects onbuying. Prerequisite: MKTG 350.
MKTG 352 Marketing Communications ..... 5Business firms' methods of communications to their markets and publics. Analysis of thepromotional mix; personal selling, advertising, sales promotion and publicity. Promotionstrategies. Prerequisite: MKTG 350.
MKTG 353 Sales Management ..... 5Deals with the personal selling function and its related administration and managerialactivities. Covers the development of the selling function, sales management planning,recruiting, training, sales force organization, supervision and motivation, compensationand evaluation. Prerequisite: MKTG 350.
MKTG 354 Introduction to Retailing Management ..... 5Covers the major managerial, functional, institutional, and environmental dimensions ofexchange transactions involving marketing organizations and ultimate consumers. Prereq-uisite: MKTG 350.
MKTG 355 Services Marketing ..... 5Introduces the student to the specific challenges of marketing a services firm. Basicconceptual distinctions between facilitating the exchanges of goods and services are thefocus of the course. Applications are explored in a variety of industries, including banking,insurance, health care, hotels, restaurants, and education. Prerequisite: MKTG 350.
MKTG 356 Transportation and Logistics ..... 5Introduces the basic concepts and techniques used to design transportation and logisticsnetworks, including characteristics of common carriers, rate making, warehouse functionand location, traffic management, and traffic law. Prerequisite: MKTG 350.
MKTG 451 Marketing Research5Purpose, methods, and techniques of marketing research. Prerequisites: MKTG 350 andECON 260.

## MKTG 452 Marketing Management 5

Case studies of corporate problems, decision making. Student participation in various roles of marketing. Organization planning, execution, and control of marketing problems. Prerequisites: MKTG 350, ACCT 231, and senior standing.

## MKTG 456 International Marketing

Analyzes issues important in marketing in multiple foreign environments. Addresses market segmentation, product design, promotional strategies, pricing strategies in the face of changing exchange rates, media choice, and the importance of cultural differences. Offered every other year. Prerequisite: MKTG 350.

## MKTG 491 Special Topics 2 to 5

MKTG 495 Internship 1 to 5
Open to senior marketing majors with adviser's approval. Mandatory CR/F and will not satisfy a major requirement.
MKTG 496 Independent Study 1 to 5
MKTG 497 Directed Reading 1 to 5
MKTG 498 Directed Research 1 to 5
MKTG 496, 497, and 498 are supervised individual work. Open to senior business majors with the approval of the student's adviser. Mandatory CR/F and will not satisfy a major requirement.

## OPER 360 Manufacturing and Service Operations 5

An introduction to the operations function, including operations strategy, operations analysis, service delivery, quality improvement, inventory systems, facility layout, materials management, scheduling, aggregate planning, project management, and international operations. Students work in teams to visit a local factory or service operation and prepare reports relating their observations to course topics. Prerequisites: MATH 130, CSSE 103, junior standing in the Albers School. (fall, winter, spring)

## OPER 361 Operations Strafegy <br> 5

An in-depth examination of operation strategies for manufacturing and service and their essential links with other organizational functions, including marketing, finance, and engineering. Development, content, and implementation of operations strategies are discussed in the context of domestic and international cases. Student teams apply a theoretical framework to analyze operations strategies in local firms. Prerequisites: OPER 360; MKTG 350 recommended.
OPER 362 Managing Processes 5
Focuses on customer requirements and introduces tools available for improving manufacturing and service processes. Topics include process analysis tools, customer needs assessment, societal and ethical issues, customer interaction, quality function deployment, benchmarking, quality costs, statistical concepts in quality analysis and control, organization for quality, quality information systems, and motivational issues. Prerequisites: OPER 360, ECON 310; MKTG 350 recommended. (formerly Principles of Quality)

## OPER 363 Operations Planning and Control Systems <br> 5

Planning and control systems applied to the transformation processes in manufacturing and service settings. Topics include master planning, forecasting, inventory management, material requirements planning (MRP), capacity planning, production activity control, activity-based costing, just-in-time (JIT) systems, theory of constraints, demand management, distribution requirements, planning, automation, and implementation issues. Students are introduced to computer applications in most topical areas and cases are used to illustrate course concepts. Provides students with some of the background necessary for professional certification with the American Production and Inventory Control Society (APICS). Prerequisite: OPER 360, ECON 310.
OPER 391 Special Topics
2 to 5
OPER 392 Special Topics 2 to 5
OPER 442 Manufacturing Processes 4
Overview of the manufacturing processes, including casting, formaing, machining and welding; physics governing processes, the associated process parameters and their influences. Special emphasis is placed on plastics processing. Three lectures and one laboratory or field trip per week. Listed jointly with MMEGR 342. Prerequisite: OPER 360.

## OPER 464 Supply Chain Management 5

Introduces concepts and tools required to manage the network of suppliers producing goods and services which are subsequently converted by the buying firm. Topics include supplier evaluation/selection, development and certification; logistics; partnering; technology; modeling; just-in-time purchasing; managing risk; inventory management; international issues. Student teams will visit local firms to anaylize supply chain management practices. Prerequisites: OPER 360.
OPER 465 International Study Tour in Operations 5
Students spend one to two weeks touring factories and meeting in faculty-led seminar groups in Latin America, Europe, or Asia. Seminar sessions prior to the tours will provide students with relevant backgrounds regarding politics, customs, culture, language, service delivery issues, and manufacturing practices related to the country to be visited. Students study the attributes of world-class operations, developing a benchmarking framework and observational skills in preparation for international company visits. At the end of the tour, each student will write a paper summarizing observations and relating them to previous course work in operations. Prerequisites: OPER 360 and faculty permission. Offered yearly.

## OPER 466 Project Management 5

Addresses the managerial concepts and technical tools required for evaluating, planning, managing, and controlling projects. Topics include strategic issues, project selection, risk analysis, work breakdown structures, PERT/CPM, resource management, conflict issues, project scheduling software, cost/schedule control systems, team-building, and matrix organization. Guest speakers from industry highlight implementation issues. Students apply course concepts to real and simulated projects. Prerequisite: OPER 360. Offered yearly.

OPER 491
Special Topics in Operations ..... 2 to 5
OPER 492 Special Topics in Operations ..... 2 to 5
OPER 495 Operations Internship ..... 1 to 5Students exercise operations skills learned in the classroom by participating in theoperations internship program. Internships are arranged with local businesses to matchthe interests and backgrounds of individual students. Functional areas may includepurchasing, industrial engineering, operations analysis, space planning, quality manage-ment, materials, forecasting, production scheduling and others. Prerequisites: OPER 360and at least one elective in the operations area.
OPER 496 Independent Study ..... 1 to 5
OPER 497 Directed Reading ..... 1 to 5
OPER 498 Directed Research ..... 1 to 5
OPER 496, 497, and 498 are supervised individual exploration. Open to senior business majors with the approval of the student's adviser. Mandatory CR/F and will not satisfy a major requirement.

# School of Education 

Sue A. Schmitt, EdD, Dean

Dian S. Blom, EdD, Assistant Dean for Professional Development Programs
Ivan Hutton, PhD, Assistant to the Dean
Division of Teaching and Learning
Sandra Barker, PhD, Chair
Division of Leadership and Service
Carol Weaver, PhD, Chair

## Objectives

The mission of the School of Education is to prepare ethical and reflective professionals for quality service in diverse communities. These professionals will contribute positively to the values, principles, and practices of their communities, workplaces, and professional associations.

The teacher preparation program is a graduate-level program leading to Washington teaching certificates in elementary education and in a variety of secondary school subjects. Also available are programs to prepare teachers in the areas of early developmentally disabled, learning disabled, early childhood, reading, and gifted education. See the Graduate Bulletin of Information or call the Education Office for details.

Through reciprocal agreements, School of Education graduates also qualify for certification in many other states.

## Accreditation

The School of Education is fully accredited by the National Council for Accreditation of Teacher Education and approved by the Washington State Board of Education.

## Organization

The graduate programs of the School of Education are organized into the following two divisions:

Teaching and Learning
Curriculum and Instruction
Educational Administration
School Psychology
Teacher Education

Leadership and Service
Adult Education and Training
Counseling
Educational Leadership
Student Development Administration
Teaching English to Speakers of Other Languages

Close cooperation exists among all departments, schools, and colleges of the university in working out programs of preparation for undergraduate students who desire a career in teaching.

## Graduate Degrees and Programs Offered

See Graduate Bulletin of Information
Doctor of Education (EdD)
Educational Specialist (EdS)
Master of Arts in Education (MA)
Master of Education (MEd)
Master in Teaching (MIT)
Post-Master's Certificates

## Teacher Education

Although there is no undergraduate degree in education, students interested in teaching should contact the Master in Teaching program at (206) 296-5759 to be assigned an adviser to ensure that they meet state requirements for an academic program as well as the specific requirements for admission into the MIT program.

## Master in Teaching Program

Seattle University offers an innovative Master in Teaching (MIT) degree for students interested in a teaching career. Students interested in a teaching career should contact the MIT program at (206) 296-5759 to be assigned an adviser to ensure that they meet state requirements for an academic major as well as the specific requirements for MIT admission.

## Elementary Certification (K-8)

To earn a certificate to teach kindergarten through eighth grade, the elementary certification candidate must have completed an undergraduate degree with a strong liberal arts foundation, including courses in language arts, science, math, and social science.

## Secondary Certification (4-12)

To earn a certificate to teach fourth through twelfth grade, the secondary certification candidate must have completed an undergraduate or graduate degree in an academic major represented in the table below that corresponds to their area of desired certification (e.g., someone wanting to teach biology must have a bachelor's or master's degree in biology). Candidates with a degree in a closely related area (e.g., engineering or environmental studies) must call the master in teaching secretary at (206) 296-5759 to arrange an appointment with the field experiences coordinator to evaluate transcripts. Endorsements are subject to change. Please check with your education adviser for current requirements. The following majors are suitable for 4-12 certification through Seattle University.

| Endorsement in Content Subject Area | Before $9 / 1 / 2000$ Primary 45 Qtr Credits | Before 9/1/2000 Additional 24 Qtr Credits | Available After <br> 8/31/2000 <br> Primary <br> 45 Otr Credits | Available After 8/31/2000 Supporting 24 Qtr Credits |
| :---: | :---: | :---: | :---: | :---: |
| *Art | yes | yes | no (see Designated Visual Arts) | no |
| Biology | yes | yes | no (see Designated Science) | no |
| Chemistry | yes | yes | no (see Designated Science) | no |
| Designated Science: |  |  |  |  |
| Biology | no | no | yes | yes |
| Chemistry | no | no | yes | yes |
| Earth Science | no | no | yes | yes |
| Physics | no | no | yes | yes |
| Designated Visual Arts | no | no | yes | no |
| *Designated World Lang. | no | no | yes | yes |
| English | yes | yes | yes | no |
| *ESL | yes | yes | no | yes |
| English/Language Arts | yes-60 Qtr Cr | yes-45 Qtr Cr | yes-60 Qtr Cr | no |
| Foreign Language | yes | yes | no (see Designated Worid Lang) | no |
| History | yes | yes | yes | no |
| Mathematics | yes | yes | yes | yes |
| Physics | yes | yes | no (see Designated Science) | no |
| Science | yes-60 Qtr Cr | yes-45 Qtr Cr | yes-60 Qtr Cr | no |
| Social Studies | yes-60 Qtr Cr | yes-45 Qtr Cr | yes-60 Qtr Cr | no |
| *Special Education | yes | yes | yes | no |

*K-12 certification

| No. of Endorsements | Before | After |
| :--- | :---: | :---: |
| Reguired: | $\mathbf{9 / 1 / 2 0 0 0}$ | $\mathbf{8 / 3 1 / 2 0 0 0}$ |
|  | Two for the | Only one primary endorsement |
|  | Continuing Certificate | is required for the professional |
|  |  | teaching certificate |

Note: Require Vocational Endorsement: Agriculture, Business Educ, Family/Consumer Sci, Marketing Ed, Tech Educ

## Additional Endorsements (Preschool-12)

The following table represents content areas suitable for additional endorsements through Seattle University, although course work may not be available at Seattle University:

| Endorsement in Content Subject Area | Before 9/1/2000 Additional 24 Qtr Credits | After 8/31/2000 Primary 450tr Credits | After 8/31/2000 Supporting 24 Qtr Credits |
| :---: | :---: | :---: | :---: |
| Agriculture | yes | no | no |
| Anthropology | yes | no | no |
| Bilingual Education | yes | no | yes |
| Business Education | yes | no (see Designated Voc/Tech) | no |
| Choral Music | yes | no (see Designated Arts) | no |
| Comparative Religion | yes | no | no |
| Computer Science | yes | no | no |
| Designated Arts: |  |  |  |
| Choral | no | yes | no |
| General | no | yes | no |
| Instrumental | no | yes | no |
| Designated Arts: |  |  |  |
| Dance | no | no | yes |
| Drama | no | no | yes |
| Designated Science: |  |  |  |
| Earth Science | no | yes | no |
| Designated Voc/Tech: |  |  |  |
| Agriculture | no | yes | no |
| Business Education | no | yes | no |
| Family/Con Sci Educ | no | yes | no |
| Marketing Education | no | yes | no |
| Technology Education | no | yes | no |
| Designated WId Language | no | yes | yes |
| Drama | yes | no (see Designated Arts) | no |
| Early Childhood Educ | yes | yes | yes |
| Early Childhood Spec Educ | yes-48 Qtr Cr | no | no |
| Earth Science | yes | no (see Designated Science) | no |
| Economics | yes | no (see Social Studies) | no |
| Foreign Language (Other) | yes | no (see Designated Wid Lang) | no |
| Geography | yes | no | no |
| Health | yes | no | no |
| Health/Fitness | no | yes | no |
| Home Family Life Educ | yes | no (see Designated Voc/Tech) | no |
| Instrumental Music | yes | no (see Designated Arts) | no |
| Journalism | yes | no | no |
| Learning Resources | yes | no (see Library Media) | no |
| Library Media | no | yes | yes |
| Middle Level | no | yes | no |
| Marketing Education | yes | no (see Designated Voc/Tech) | no |
| Music | yes-45 Qtr Cr | no (see Designated Arts) | no |
| Philosophy | yes | no | no |
| Physical Education | yes | no (see Health/Fitness) | no |
| Political Science | yes | no | no |
| Psychology | yes | no | no |
| Reading | yes | yes | yes |
| Sociology | yes | no | no |
| Speech | yes | no | no |
| Technology Education | yes | no (see Designated Voc/Tech) | no |
| Traffic Safety | yes-12 Qtr Cr | no | yes-12 Qtr Cr |

## Elementary and Secondary Continuing Certification

For continuing certification through $8 / 31 / 2000$, teachers must have at least two teaching area endorsements. Those endorsements may be in elementary education or in any of the majors suitable for secondary certification or in any of the majors listed above for additional endorsements. Beginning $9 / 01 / 2000$, only one primary endorsement will be required for the professional teaching certificate.

## Education Courses

These courses can be used as electives in a student's program with a School of Education adviser's approval.

EDUC 300 Schooling in American Society 3
A course for undergraduates who are considering teaching as a profession, as well as other undergraduates who are interested in learning about schooling in America. The course will examine the purposes of schools in American society. Issues to be explored include a look at the original purposes of schools in this country, the current state of American education, the issues facing schools today, and a consideration of the schools of the future. In addition, the role of the teacher in each of these settings will be examined. Visits to three schools will be required as part of this course.

## EDUC $380 \quad$ Preparation for Leadership 2 Designed for undergraduate students who wish to develop and sharpen their understanding of leadership and leadership skills.

EDUC 412 Math for Elementary Teachers 3
A participation-oriented, hands-on review of the mathematical content needed to teach elementary school mathematics in a manner consistent with national reform standards in mathematics education. The focus is on the acquisition of conceptual understanding in preparation for teaching.

# Matteo Ricci College 

Arthur Fisher, PhD, Dean<br>Jodi Kelly, MRE, Associate Dean

## About Matteo Ricci College

Matteo Ricci College at Seattle University is the three-year university phase of an innovative program that coordinates and integrates high school and university level studies, enabling students to complete their high school and university education in six or seven years, rather than the traditional eight.

The Matteo Ricci College (MRC) program was developed jointly by Seattle Preparatory School and Seattle University. That collaboration led, in 1975, to Seattle Prep's initial offering of the three-year high school phase and, in 1977, to Seattle University's initial offering of the three-year university phase. Access to MRC at Seattle University was restricted from the inception of the program through the $1988-89$ academic year to students who had completed the three-year curriculum at Seattle Prep.

In recent years, collaboration between Seattle University and six of the eight local Catholic high schools has led to academic partnerships, termed the Matteo Ricci College Consortium, that open the college to graduates of those schools. The focus of these partnerships is a bridge curriculum that is designed jointly by high school and university faculty and taught by the high school faculty on the high school campus. That curriculum can generate five or 10 Seattle University credits, which may be applied toward MRC degree program requirements or other Seattle University program requirements, or be transferred to other universities.

## Objectives

Matteo Ricci College seeks to develop students who shape their personal and social futures through responsible choices. The objectives of the program are to continue the harmonious development of students' cognitive, affective, and valuative potential; bring students to a reflective consciousness of how they learn; and foster an inquiring, caring community of learners and teachers. Focusing on students' intellectual, aesthetic, emotional, ethical, and religious life, the curriculum is designed to sharpen and test generalizable learning skills. Students exercise and develop verbal and non-verbal communication skills; develop specific skills, both in a broad range of traditional disciplines and in an area of specialization; and confront, through interdisciplinary investigation, problems, clarifying themes, and a variety of values. Students are aided in undergoing prescriptive self-assessment.

## Admission Requirements

Beginning with the fall term of the $1989-90$ academic year, access to MRC/SU became available to the following students:

- Seattle Prep students who have successfully completed the appropriate three-year curriculum there and are recommended for advancement to MRC/SU.
- Graduates of Seattle Prep who follow the three-year curriculum there with successful completion of a fourth year of study on the Prep campus.
- Graduates of Eastside Catholic High School, Forest Ridge High School, Holy Cross High School, John F. Kennedy Memorial High School, and 0'Dea High School who: 1. meet the university's entrance requirements; 2. earn a grade of C (2.0) or higher in the jointly developed "bridge curriculum" offered at the high school campuses that generates Seattle

University credits; and 3. receive recommendations from teachers involved in the bridge curriculum and from the high school administration.

## Degree Offered

Bachelor of Arts in Humanities
In addition, a second baccalaureate degree in a variety of liberal arts and professional areas can usually be earned in an additional three quarters of study.

## General Program Requirements

## (Policy 90-1)

MRC students are expected to make normal progress toward completing the required courses in sequence. They must maintain a cumulative academic grade point average of 2.0 or higher during the first year of the program and 2.25 during the remainder of the program. Students failing to meet these expectations will be placed on probation for two quarters, and thereafter are subject to dismissal from the MRC program.

The MRC peer advisers serve as the principal advisers to all MRC students on academically related matters. Consequently, a student in the college may not register for any Seattle University course, either in the summer session or during the regular academic year, without first consulting and receiving the written permission of a peer adviser. MRC students are required to seek additional advising from faculty with disciplinary expertise in the area of specialized studies selected (see Area of Concentration below).

## Bachelor of Arts in Humanities Major in Humanities

In order to earn the bachelor of arts with a major in humanities through Matteo Ricci College, students must complete 135 quarter credits, including the following:

HUMT courses
Fine Arts electives ............................................................................................ 4 to 5
Interdisciplinary Science .......................................................................................... 5
Social Science Inquiry (ISSS 120) ........................................................................... 5
Areas of Concentration (choose one):
Concentration in a single discipline ....................................................................... 40
Concentration in a pre-professional area (e.g., pre-medical, pre-dental,
pre-law, business, engineering, etc.)............................................................ 50
Concentration in a coordinated split discipline ......................................... 45 (20/25)
Electives (approved by MRC adviser) .......................................................... remainder

## Typical Schedule

## Year 4

HUMT 100 series courses ....................................................................................... 30
Fine Arts courses ................................................................................................... 4-5
Social Science Inquiry (ISSS 120) ............................................................................ 5
Area of concentration and approved courses ....................................................... 5-6
Year 5
HUMT 300 series courses ..... 15
Science and Technology course ..... 5
Area of concentration and approved courses ..... 25
Year 6
HUMT 400 series ..... 15
Area of concentration and approved courses ..... 30
Please Note: 1. Only courses graded C- (1.7) or higher will fulfill the HUMT requirementsscheduled for the HUMT 150 and 180 series. Only those graded C (2.0) or higher will beaccepted in fulfillment of all other humanities courses. 2. MRC students who have successfullycompleted an area of concentration may apply the credits earned toward a second baccalau-reate degree in certain major fields of study, subject to the approval of the appropriate school,and the university regulation of 45 minimum additional credits for a second baccalaureatedegree. 3. The curriculum for students entering MRC/SU from schools other than Seattle Prepwill vary only slightly from the requirements listed above, depending on the content of therespective school's bridge curriculum. Students entering MRC/SU from the consortium schoolsmust earn 135 credits beyond what was earned in the bridge curriculum on the high schoolcampus.
Matteo Ricci College Humanities Courses
HUMT 150 - Composition: Language and Thought ..... 5Study and practice in informal logic and argumentation, with emphasis upon the compo-sition of clear, persuasive writing.
HUMT 151 Composition: Language and the Arts ..... 5Interdisciplinary study of artistic composition in a variety of art forms, with emphasis upon,and practice in, literary composition.
HUMT 156 Quantitative Reasoning ..... 5Mathematics as a window to the world and as a practical art. Introduction to the role ofquantitative reasoning in the study of social problems and in decision-making: case studiesthat feature exploratory data analysis, rates of change, and statistical concepts andmethods. Emphasis on the formulation of hypotheses, translation of quantitative patternsinto argument, and construction and use of mathematical models. Prerequisite: one yeareach of high school algebra and geometry.
HUMT 180 Socio-Cultural Transformations I ..... 5
HUMT 181 Socio-Cultural Transformations II ..... 5
HUMT 182 Socio-Cultural Transformations III ..... 5
A three-quarter, interdisciplinary study of the evolution of major systems of meaning and value in Western civilization and the social expressions of these systems; emphasis on analysis of social and cultural phenomena and on interpretation of the personal and communal significance of cultural change in the past, present, and future.
HUMT 291 Special Topics ..... 1 to 5
HUMT 292 Special Topics ..... 1 to 5

HUMT 293 Special Topics

HUMT 301 Perspectives on the Person I 5
HUMT 302 Perspectives on the Person II 5
Reflective and critical examination of the structures of experience which define and shape human reality from philosophical, theological, psychological, and literary perspectives; emphasis on understanding of self and on appropriation of a religiously grounded sense of care and responsibility at both individual and social levels.

## HUMT $380 \quad$ Cultural Interface

 5Interdisciplinary study of the elements of human behavior that define culture and the processes of interaction between European culture and cultures of Asia, Africa, and Latin America. (formerly HUMT 280)
HUMT 400 MRC Seminar 5
HUMT 401 MRC Seminar 5
Seminars that engage students in social and cultural issues of the contemporary world, with special attention to local expressions of these issues. Emphasis on relationships among empirical data and the search for the normative and the ideal; attention to acquiring the additional knowledge, skills, and sensibilities required for successful completion of a capstone project in the following seminar, HUMT 402.
HUMT 402 Capstone Seminar 5
A project-based seminar that integrates and culminates the MRC experience. Content features: empirical research on a social problem of choice; linking of empirical findings to public policy contexts; ethical critique and/or defense of decisions or positions taken. Pedagogical format: student teams instructed and guided by a team of faculty mentors.

## School of Nursing

Luth M. Tenorio, PhD, RN, Dean
Janet M. Claypool, MN, RNC, Associate Dean

## Objectives

The aim of the School of Nursing is to provide educational preparation for professional practice. There are four major goals for the baccalaureate nursing program:

- Provide educational experiences to develop knowledge, skills, and values essential to the profession of nursing.
- Provide opportunities for students to realize their potentials as persons and as professionals.
- Prepare students in the Jesuit tradition of service to others for meeting health needs in society.
- Provide the foundation for graduate study in nursing.


## Undergraduate Degree Offered

Bachelor of Science in Nursing
To keep the program current, changes may be made in the undergraduate curriculum. These changes will not increase the total number of credits required for degree completion. When a curriculum change occurs, students must complete the enrolled program of study within one(1) year of the last regularly scheduled course in the discontinued curriculum OR apply for readmission to the new curriculum.

## Graduate Degree Offered

See Graduate Bulletin of Information
Master of Science in Nursing

## Accreditation

Washington State Nursing Care Quality Assurance Commission Commission on Collegiate Nursing Education
National League for Nursing Accrediting Commission
For additional information on Seattle University's nursing programs, please contact the School of Nursing. Prospective BSN students who desire further information about nursing programs in general, such as tuition, fees, and length of program, may also contact the National League for Nursing Accrediting Commission, 350 Hudson Street, New York, NY 10014, (800) 669-9695.

## Programs of Study

The School of Nursing offers an undergraduate program in nursing for basic students with no previous education in nursing and for registered nurse students seeking the bachelor of science in nursing degree. It also offers a master of science degree program. See the Graduate Bulletin of Information for details.

## Admission Requirements

All entering students from high schools or accredited institutions of higher education who wish to complete requirements for the bachelor of science degree in nursing must meet university entrance requirements described in the admissions section of this bulletin. A cumulative and major prerequisite grade point average of 2.75 or above from another college or university is required for transfer students seeking admission into the School of Nursing.

## General Program Requirements

Students must obtain a cumulative and major program/prerequisite GPA of 2.75 to enter the nursing sequence of study. Specific requirements for progression are detailed in Policy 75-3, which is included in the School of Nursing Student Handbook.

Students must meet the School of Nursing/Clinical Agency requirements for annual health screening, current C.P.R. certification, immunization, medical insurance coverage, and other state and federal requirements. Students are responsible for these expenses as well as uniforms, equipment, and transportation costs to and from clinical agencies/sites. Students are referred to the School of Nursing Student Handbook for a more detailed overview of requirements and expectations.

Professional liability insurance is required for registered nurse students through the duration of all clinical experiences. Fees are assessed for all laboratory and clinical courses (see costs section of this bulletin). Students are required to participate in program and comprehensive testing/evaluations. Fees associated with these processes are the responsibility of the students. Fees are also required to apply for RN licensure. Details regarding these costs are found in the School of Nursing Student Handbook.

## Clinical Experiences

Clinical experience is provided through cooperating health care agencies, which include the Bessie Burton Sullivan Skilled Nursing Residence, Children's Hospital and Regional Medical Center, C.P.C. Fairfax, Evergreen Hospital Medical Center, Group Health Cooperative Hospital and Clinics, Harborview Medical Center, Northwest Hospital, Overlake Hospital Medical Center, Pacmed Clinics, Providence Seattle Medical Center, Seattle King County Health Department, Seattle Public Schools, Swedish Medical Center, Valley Medical Center, Providence Mount St. Vincent, VA Puget Sound Health Care System, Virginia Mason Hospital, West Seattle Psychiatric Hospital, Yesler Terrace, Asian Counseling and Referral Services, Home Health Care of Washington, Martin Luther King Day Home Center, Visiting Nurse Services, and other selected health care agencies.

## Bachelor of Science in Nursing For Registered Nurse Students

Registered nurse (RN-B) students must complete degree requirements as outlined below for transfer students and must also complete NURS 310 and 385 . A minimum of 180 quarter credits are required to earn the baccalaureate degree in nursing. Transfer credits from accredited institutions of higher education may be accepted towards the university core curriculum and major program prerequisites. Some of the nursing credits may be earned through validation using the National League for Nursing Mobility Profile II Examination program. (see Policy \#85-1).

A minimum of 55 credits must be completed at Seattle University in upper division core and nursing courses with a cumulative grade point average of 2.5 . Required nursing courses must be graded $C(2.0)$ or better.

Registered nurse applicants must have a cumulative and major prerequisite grade point average of 2.75 or above, have graduated from a program accredited by the National League of Nursing, and have current nursing licensure in the state of Washington.

## Bachelor of Science in Nursing For Entering Freshmen or Transfer Students

To earn the bachelor of science in nursing, students must complete a minimum of 180 quarter credits. The number of contact hours for lecture, lab, and clinical courses is consistent with university policy on course scheduling. A 2.5 cumulative grade point average is required for degree completion. All courses required for the BSN degree must be graded C (2.0) or better. Program requirements include:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western CivilizationHIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
MATH $\quad 107$ or 110 or above* ..... 5
Lab Science (BIOL 220 required)* ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I (PSYC 120 required)* .....  5
Social Science II (not psychology) ..... 5
FINR120 or approved fine arts alternate ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
PHIL 352 Health Care Ethics ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary course. ..... 3
Senior Synthesis satisfied by NURS 490
*Also major/program requirement; C (2.0) minimum grade allowed.See detailed university core curriculum in this bulletin
II. Major Requirements
One hundred-nine credits, including:
BIOL 200 Anatomy and Physiology I ..... 5
BIOL 210 Anatomy and Physiology II ..... 5
PSYC 322 Psychology of Growth and Development (or approved alternate) ..... 5
NURS 202 Statistics for Health Research (or approved alternate) ..... 5
NURS 203 Contemporary Nursing ..... 2
NURS 204 Pathophysiology ..... 5
NURS 207 Introduction to Pharmacology ..... 3
Nursing upper division credits:
NURS 306 Foundations of Professional Nursing ..... 5
NURS 308 Health Assessment and Intervention I ..... 5
NURS 309 Promoting Wellness in Families ..... 10
NURS 311 Promoting Wellness During Altered Health I ..... 10
NURS 324 Nursing Research and Epidemiological Methods ..... 5
NURS 326 Health Assessment and Intervention II ..... 5
NURS 401 Promoting Wellness During Altered Health II ..... 10
NURS 402 Leadership and Management in Health Care ..... 5
NURS 403 Health Care in Communities ..... 10
NURS 416 Contemporary Issues with Vulnerable Populations. ..... 2
NURS 425 Transition to Professional Nursing Practice ..... 9
NURS 490 Senior Synthesis ..... 3
III. Electives
Unspecified Elective ..... 3

Please Note: Prospective students are encouraged to work with a designated academic adviser to develop a plan of study that meets program requirements.

## Nursing Courses

## NURS 202 Statistics for Health Research 5

A conceptual approach to statistics, including hypothesis testing, statistical significance, and statistical power. Common descriptive and inferential statistical tests and how to use them. Application to nursing and health care research. Theory (4 credits), lab (1 credit). Prerequisite: MATH 107 or above. Open to non-majors. (fall)
NURS 203 Contemporary Nursing 2
Introduction to professional nursing in the context of contemporary health care systems. Students will engage in skills essential to nursing: critical reading, critical thinking, reflection, and communication. Prerequisites: ENGL 110, PHIL 110. Open to non-majors. (spring)

## NURS 204 Pathophysiology 5

A conceptual approach to alterations in structure and function resulting from the action of stressors on the human body. Course will review the cellular and molecular basis of these alterations, such as inflammation, immunity, and the genetic basis of disease. These basic pathologic mechanisms will also be applied to body systems. Prerequisites: BIOL 200, 210; BIOL 220 recommended. Open to non-majors. (spring)

## NURS 207 Introduction to Pharmacology 3

Examination of pharmacological principles and drug classes. Self-management strategies and care provider considerations. Integration of legal, ethical, and other social factors. Prerequisite: Math 107 or above. Pre- or corequisite: NURS 204. (spring)

## NURS 306 Foundations of Professional Nursing 5

Examination of nursing history, nursing theory, and professional practice using systems theory as a framework. Introduction to concepts of health, health promotion and protection in the context of health care delivery systems. Development of communication, collaboration, and group process skills for professional relationships. Prerequisite: NURS 203; majors only. (fall)
NURS 308 Health Assessment and Intervention I 5
Basic techniques of screening assessments and health promotion interventions of individuals, families and populations across the lifespan. Theory ( 2 credits), Lab/Clinical ( 3 credits). Prerequisites: PSYC 322, BIOL 220, and all required NURS courses numbered 202 through 207. Pre- or corequisite: NURS 306. (fall)

## NURS 309 Promoting Wellness in Families 10

Family structure, function and dynamics. Theory will focus on nursing strategies to promote health and reduce the risk of illness and injury in families across the generations. Clinical experiences will be in a variety of community-based settings. Theory ( 5 credits), clinical ( 5 credits). Prerequisites: PSYC 322, NURS 308. Pre- or corequisite: NURS 324. (winter)
NURS 310 Current Perspectives in Professional Nursing 5 Transition course for RNs only. Professional nursing in a social context; characteristics of professional practice; teaching-learning principles; communication skills; health promotion. Field assignments arranged. (fall)

## NURS 311 Promoting Wellness During Altered Health I <br> 10

Examination of factors contributing to and resulting in common, acute and chronic alterations in health across the lifespan. Focus is on illness management, risk reduction and disease prevention in individuals, families and populations in a variety of health care settings. Theory ( 5 credits), clinical ( 5 credits). Prerequisites: All required NURS courses numbered 202 through 309 plus 326. (spring)

## NURS 324 Nursing Research and Epidemiological Methods

 5 Introduction to research as a problem-solving process fundamental to nursing practice. Emphasis on developing knowledge in epidemiological, quantitative, and qualitative methods. Application of computer skills to identify and search health care databases. Prerequisite: NURS 202. Pre- or corequisite: NURS 306. (fall)
## NURS 326 Health Assessment and Intervention II 5

Focus on health assessment with altered states of health, including data gathering, analysis, and planning care for individuals, families and populations across the lifespan. Nursing interventions applied to clients across health states. Theory ( 2 credits), lab/clinical (3 credits). Prerequisite: NURS 308. Pre- or corequisite: NURS 324. (winter)

NURS 372 Issues in Women's Health: A Wellness Perspective

3 or 5
Elective course (not a major requirement). Life style and influences on health outcomes. Health promotion and protection practices. Special emphasis on nutrition as it relates to wellness. Examination of health issues and choices for women and families. Junior standing or permission of instructor. Open to non-majors and applicable to a women's studies minor. (winter or spring)

## NURS 385 Clinical Decision Making 5

Seminar for RNs only. Analysis of clinical decision making and examination of selected professional issues with clients and families. Application of the nursing process in a variety of practice settings. Prerequisite: PSYC 322, NURS 310, and NLN Mobility II Examinations. (winter)

## NURS 391 Special Topics 1 to 5

NURS 392 Special Topics 1 to 5

## NURS 396 Directed Study 2 to 5

NURS 401 Promoting Wellness During Altered Health II 10
Continued focus on illness management, and nursing therapies to promote wellness during altered health states across the lifespan. Emphasis on managing complex care. Continued refinement of direct care skills in a variety of health care settings. Theory ( 5 credits), clinical ( 5 credits). Prerequisites: NURS 311, 326. Pre- or corequisite: NURS 402. (fall)

## NURS 402 Leadership and Management in Health Care 5

Organizational theories, leadership and management principles, and economic, political and legal factors as they relate to the delivery of health services. Prerequisites: All required NURS courses numbered 202 through 326. (fall)

## NURS 403 Health Care in Communities 10

Application of systems theory, nursing science, public health science and community health theories to a variety of populations and communities. The major nursing focus will be problem solving to promote healthy communities. Students will collaborate with other disciplines and community members on health policy issues. Theory ( 5 credits), clinical ( 5 credits). Prerequisites: All required NURS courses numbered 202 through 402. (winter)
NURS $\mathbf{4 1 6}$ Contemporary Issues with Vulnerable Populations 2 Incorporate study of clients from previous and concurrent nursing courses to critically examine the concept of vulnerability and associated risk factors. Ethics, advocacy and empowerment will frame evaluation of intervention strategies. Prerequisites: All required NURS courses numbered 202 through 401. (winter)
NURS 420 Drugs and Nursing Implications: A Case Study Approach
Elective course for nursing majors. Focus on major drug classes and significant nursing implications. Using a case study approach, the student will synthesize information learned in previous theory and clinical courses. Prerequisites: Nursing Level $400+$ or instructor permission. (winter and/or spring)

## NURS 425 Transition to Professional Nursing Practice

Concentrated clinical practice as well as seminar discussions to appraise issues in professional nursing and leadership and management roles appropriate for the BSN graduate. Integrates program competencies. Prerequisite: NURS 402. (spring)

## NURS 480 Interdisciplinary Core Course: The Changing Family <br> 3

Elective course. Kinship is used as the primary model for studying families and as a symbolic model for analyzing social relationships. Family responses to change and conflict are explored. The health and well-being of contemporary families will be examined from a multicultural perspective. Open to non-majors. Meets core interdisciplinary course requirement. Prerequisites: Phase I and II of the core. (fall or winter)

## NURS 481 Interdisciplinary Core Course: Stress, Survival, and Adaptation <br> 3

Elective course. Assess stress responses from multifactor, systems-oriented models through current research and literature. Examine complex cognitive, behavioral, affective, sociocultural, and environmental variables. Practice self-management interventions. Open to non-majors. Meets core interdisciplinary course requirement. Prerequisites: Phase I and II of the core. (fall, winter)

## NURS 482 Interdisciplinary Core Course: 3 or 5 <br> Contemporary Concepts of Health and Healing

Elective course. Blended science and humanities review of theoretical foundations of health. Current issues include alternative health care, balancing individual responsibility with community needs, environment, and cultural health. Open to non-majors. Requires application of concepts to student's declared major. Meets core interdisciplinary requirement. Prerequisites: Phase I and II of the core.

## NURS 490 Senior Synthesis 3

A capstone seminar of reflection and synthesis of the core and nursing. Integration of the intellectual, professional and personal responsibilities of nursing as a career. Examination of contemporary issues challenging the profession. Meets core requirement. Nursing majors only. Prerequisites: All previous nursing major requirements. (spring)

| NURS 491 | Special Topics | $\mathbf{1}$ to 5 |
| :--- | :--- | :--- |
| NURS 492 | Special Topics | 1 to 5 |
| NURS 493 | Special Topics | 1 to 5 |
| NURS 496 | Independent Study | 2 to 5 |
| NURS 497 | Directed Reading | 2 to 5 |
| NURS 498 | Directed Research | 2 to 5 |

# School of Science and Engineering 

George M. Simmons, PhD, Dean<br>Patricia D. Daniels, PhD, PE, Associate Dean

## Objectives

Rooted in the Jesuit tradition of liberal education, the School of Science and Engineering at Seattle University seeks to provide dynamic, integrated, and challenging academic programs in science, engineering, and health. The school is dedicated to preparing students for responsible roles in their chosen professions and to advancing the educational qualifications of practicing professionals. The school seeks to foster among all students an understanding of scientific inquiry and a critical appreciation of technological change, and to inspire them to lifelong intellectual, professional, and human growth.

## Degrees Offered

Bachelor of Arts
with a major in chemistry, computer science, mathematics, or physics
Bachelor of Science
with a major in mathematics
Bachelor of Science in Biochemistry
Bachelor of Science in Biology
Bachelor of Science in Chemistry
Bachelor of Science in Civil Engineering
Bachelor of Science in Civil Engineering with a specialization in environmental engineering
Bachelor of Science in Computer Science
Bachelor of Science in Computer Science with a specialization in business
Bachelor of Science in Computer Science with a specialization in mathematics
Bachelor of Science in Diagnostic Ultrasound
Bachelor of Science in Electrical Engineering
Bachelor of Science in General Science
Bachelor of Science in General Science with a specialization in environmental science
Bachelor of Science in General Science with a pre-professional specialization
Bachelor of Science in Mathematics
Bachelor of Science in Mathematics with a specialization in applied math
Bachelor of Science in Mathematics with a specialization in pure math
Bachelor of Science in Mechanical Engineering
Bachelor of Science in Mechanical Engineering with a
specialization in manufacturing engineering
Bachelor of Science in Medical Technology
Bachelor of Science in Physics
Master of Software Engineering -See Graduate Bulletin of Information

Students interested in other scientific, technical, and health-related careers, such as medicine or dentistry, may pursue a degree within a specific discipline and use elective courses to suit their needs, or they may tailor their complete curriculum within the general science degree.

## Accreditation

Individual programs within the school are accredited by the following professional bodies:
American Chemical Society (chemistry)
Accreditation Board for Engineering and Technology (civil engineering, electrical engineering, and mechanical engineering)
Commission on Accreditation of Allied Health Education Programs (diagnostic ultrasound)

## Admission Requirements

In addition to the requirements for admission to Seattle University, freshmen applicants for admission to the School of Science and Engineering must have completed at least three years of high school mathematics, preferably including trigonometry, and at least two years of laboratory science for all majors except mathematics and computer science.
Transfer applicants will be considered when their overall college grade point average is at least 2.5 on a 4.0 scale and when their cumulative grade point average in all engineering, mathematics, or science courses is also at least 2.50. Transfer admission is on the basis of space available, with academic performance being the prime consideration. A history of withdrawals, incompletes, and repeated courses lessens the chances for admission. To be accepted for transfer credit, required engineering, mathematics, or science courses must be graded C (2.0) or above. No technology courses will be accepted as transfer credit.

## School of Science and Engineering Requirements

Students seeking the bachelor's degree in the School of Science and Engineering must complete a minimum of 180 credits, including the university core curriculum requirements. A bachelor of science in civil engineering or in civil engineering with a major in environmental engineering requires 192 credits. For all of the engineering programs, for both degrees in computer science, and for the bachelor of science in mathematics, the student's cumulative grade point average must be at least 2.50 . In addition, for these programs, the minimum Seattle University grade point average for all courses applied to major and major department requirements is 2.50 . A cumulative and major/department average of 2.30 is required of graduating students in diagnostic ultrasound.
The core requirements have been modified for several of the degree programs, as described in the individual departmental sections of this bulletin, but in no case may a student have fewer than 45 credits in the combination of history, humanities, and social sciences. Students also must complete the specific departmental requirements for their particular degree.
A maximum of 30 credits taken by an undergraduate non-matriculated student may be applied toward a baccalaureate degree in the School of Science and Engineering. For postbaccalaureate students taking courses in preparation for graduate health professional programs, any pre-professional courses taken in non-matriculated status may be applied toward a second bachelors degree in the School of Science and Engineering.

No course may be taken without the indicated prerequisites. Only the dean may waive this policy.

## Biology

David C. Brubaker, PhD, Chair

## Objectives

Biology is the study of life at all levels, from the molecular to the global. A vital part of liberal education, knowledge of biology contributes directly to an understanding of contemporary life and appreciation of human values. It provides insights into the nature of the human body, social structure and behavior, as well as the ecological interrelationships, genetics and evolution, physiological functions, cellular, and subcellular processes of all living things.

Emphasizing laboratory and field work, the bachelor of science in biology is designed to prepare students for graduate work in basic and applied research and for professional careers in medicine, dentistry, veterinary medicine, teaching, and technical areas with biological applications. Students interested in premedical, predental, or preveterinary medicine should also consult the Preprofessional section of this bulletin.

## Degree Offered

Bachelor of Science in Biology

## Major Offered

Biology

## Minor Offered

Biology

## Bachelor of Science in Biology

In order to earn the bachelor of science in biology degree, students must complete a minimum of 180 quarter credits with a cumulative and major/program grade point average of 2.0 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ............................................................................... 5
PHIL 110 Introduction to Philosophy and Critical Thinking .............................. 5
Choose one of the following two courses: ....................................................................... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ................................................................. 5
FINR 120 or approved fine arts alternate .......................................................... 5
PHIL 220 Philosophy of the Human Person ........................................................ 5
Social Science I ........................................................................................................ 5
Social Science II (different discipline from Social Science I) .................................. 5
Theology and Religious Studies I (200-299) ........................................................... 5
Ethics (upper division) ............................................................................................ 5
Theology and Religious Studies II (300-399) .......................................................... 5
Interdisciplinary ............................................................................................... 3 to 5
Senior Synthesis (satisfied by BIOL 487 and 488)
See detailed core curriculum information in this bulletin
II. Major Requirements
Fifty-seven credits in biology, including:
BIOL 165 General Biology I ..... 5
BIOL 166 General Biology II ..... 5
BIOL 167 General Biology III ..... 5
BIOL 240 Genetics ..... 5
BIOL 470 General Ecology ..... 5
BIOL 485 Cell Physiology ..... 5
BIOL Electives (not BIOL 101, 200, 210, or 220) ..... 10
Senior Synthesis:
BIOL 487 Independent Experience ..... 2 to 4
BIOL 488 Seminar ..... 1
Choose one of the following two courses: ..... 5
BIOL 235 Invertebrate ZoologyBIOL 252 Taxonomy of Flowering Plants
Choose one of the following four courses: ..... 4 or 5
BIOL 310 Comparative Embryology ..... 5
BIOL 325 Comparative Anatomy of the Vertebrates ..... 5
BIOL 330 Comparative Vertebrate Histology ..... 5
BIOL 361 Ultrastructure ..... 4
Choose one of the following two courses: ..... 5
BIOL 385 Plant Physiology
BIOL 388 Animal Physiology
Please Note: One course of plant science beyond the $165-167$ series is required.
III. Other Major Department Requirements
CHEM 121 General Chemistry I ..... 4
CHEM 131 General Chemistry Lab I ..... 1
CHEM 122 General Chemistry II ..... 4
CHEM 132 General Chemistry Lab II ..... 1
CHEM 123 General Chemistry III ..... 4
CHEM 133 General Chemistry Lab III ..... 1
Choose organic chemistry sequence a. or b.: ..... 15 or 17
a. CHEM 335 Organic Chemistry I (3)
CHEM 345 Organic Chemistry Lab I (2)
CHEM 336 Organic Chemistry II (3)
CHEM 346 Organic Chemistry Lab II (2)
CHEM 337 Organic Chemistry III (4)
CHEM 347 Organic Chemistry Lab III (2)
b. CHEM 219 Quantitative Analysis (5)
CHEM 231 Fundamental Organic Chemistry I (4)
CHEM 233 Fundamental Organic Chemistry Lab I (2)
CHEM 232 Fundamental Organic Chemistry II (4)
CHEM 234 Fundamental Organic Chemistry I Lab II (2)
Choose group a. or b.: ..... 10
a. MATH 131 Calculus for Life Sciences
PSYC 201 Statistics I
b. MATH 134 Calculus and Analytic Geometry I
MATH 135 Calculus and Analytic Geometry II
Choose physics series a. or b. ..... 15
a. PHYS 105 Mechanics and Sound PHYS 106 Electricity, Magnetism, and Thermodynamics
PHYS 107 Survey of Modern Physics
b. PHYS 200 Mechanics
PHYS 201 Electricity and Magnetism
PHYS 202 Waves, Optics, and Thermodynamics
Minor in Biology
In order to earn a minor in biology, students must complete 30 credits in biology,including:
BIOL 165 General Biology I ..... 5
BIOL 166 General Biology II ..... 5
BIOL 167 General Biology III ..... 5
BIOL Electives ..... 15( 10 credits numbered 200 or above)See policy for minors on p .43.

## Teacher Education

The teacher preparation program is a graduate-level program only. Students planning to teach in elementary or secondary schools should contact the Master in Teaching program at (206) 296-5759 to be assigned an adviser to ensure that they meet state requirements for an academic program as well as the specific requirements for MIT admission.

## Biology Courses

## BIOL 101 Principles of Biology 5

Important areas of biology, beginning at the cellular level and culminating with a consideration of interactions and changes in natural populations. Four lecture and three laboratory hours per week. Credits not applicable to biology major. (spring)
BIOL 165 General Biology I 5

BIOL 166 General Biology II 5
BIOL 167 General Biology III 5
Survey of the biological world, concepts and principles. I) cell biology, metabolism, respiration, photosynthesis, genetics. II) evolution, diversity, and comparisons of groups of living organisms. III) development and differentiation; comparative functions of tissues and organ systems; ecology. Four lecture and three laboratory hours per week. Prerequisite: high school algebra and chemistry. BIOL 165 prerequisite to BIOL 166 and 167. (Ifall, winter; II-winter; III-spring)

## BIOL 200 Anatomy and Physiology I 5

Major structural and functional systems of the human body. Cells, tissue, bone, muscle, and nervous system. Laboratory emphasis on microscopic and gross anatomy. Credits not applicable for biology major. Four lecture and three laboratory hours per week.

BIOL 210 Anatomy and Physiology II
Major structural and functional systems of the human body. Digestive, circulatory, respiratory, endocrine, urinary, and reproductive systems. Physiological interactions among systems. Laboratory emphasis on physiology. Credits not applicable for biology major. Four lecture and three laboratory hours per week. Prerequisite: BIOL 200. (winter)
BIOL 220 Microbiology 5
Introduction to microbiology, emphasizing health-related aspects. Four lecture and three laboratory hours per week. Credits not applicable for biology major. Prerequisite: BIOL 210. (winter)

BIOL 235 Invertebrate Zoology 5
Survey of invertebrate phyla including their anatomy, morphology, taxonomy, and ecology. Four lecture and three hours laboratory per week. One weekend field trip. Prerequisites: BIOL $165,166,167$. (spring, even years)

## BIOL 240 Genetics 5

Introduction to the principles of inheritance with an emphasis on the transmission of genetic information from one generation to the next. Topics include Mendelian and nonMendelian inheritance, dominance, linkage, gene interactions, sex determination and sex linkage, polygenic inheritance, human medical genetics, and maternal effects. Five lectures per week. Prerequisites: BIOL 165,166 , and 167 , or permission of instructor. (winter)

## BIOL 252 Taxonomy of Flowering Plants

Native flora as an introduction to taxonomy, involving the principal orders and families of flowering plants. Three lecture and four laboratory hours per week. Prerequisites: BIOL 165, 166. (spring, odd years)

## BIOL 275 Marine Biology 5

Study of the marine environment and the animals and plants inhabiting it. Four lecture and three laboratory hours per week and one weekend field trip. Prerequisites: BIOL 165, 166, 167; BIOL 235 recommended. (spring, odd years)
BIOL 291 Special Topics 1 to 5
BIOL 292 Special Topics 1 to 5
BIOL 293 Special Topics 1 to 5
BIOL 296 Directed Study 1 to 5
BIOL 300 Microbiology 5
Basic biology of micro-organisms, including morphology, physiology, genetics, and ecology, with some aspects of applied and medical microbiology. Four lecture and three laboratory hours per week. Prerequisite: BIOL 165, 166, 167; CHEM 123/133. (fall)

## BIOL 310

Comparative Embryology
5
Early embryo development with consideration of gametogenisis, fertilization, gastrulation, cell differentiation, and organogenesis. Four lecture and three laboratory hours per week. Prerequisites: BIOL 165, 166, 167. (spring)

## BIOL 325 Comparative Anatomy of the Vertebrates

Comparative study of the structures of the integumentary, muscular, skeletal, digestive, respiratory, excretory, reproductive, circulatory, and nervous systems of selected vertebrates with emphasis on evolutionary relationships between organisms. Prerequisites: BIOL $165,166,167$. (winter)

## BIOL 330 Comparative Vertebrate Histology

Study of the fundamental body tissues. Three lecture and four laboratory hours per week. Recommended BIOL 310 or 325. (winter)

## BIOL 361 Ultrastructure

4
The examination of cellular structure as seen through the electron microscope. Introduction to theory of operation of the electron microscope, interpretation of electron micrographs, comparisons of fine structure of different cell types, correlations of structures with cellular functions, examples of research applications. Lecture/demonstration format; three lectures and one demonstration period per week. Prerequisite: BIOL 165 and permission of instructor. (winter)

## BIOL $385 \quad$ Plant Physiology

Study of the function of plants, with emphasis on the wide range of physiological process that may contribute to success and survival of plants in their environment. Transport mechanisms; water and mineral management; responses to light, including photosynthesis, photoperiodism, and photomorphogenesis; functions of plant hormones; responses to environmental stresses; events in development. Four lecture and three laboratory hours per week. Individual project. Prerequisites: BIOL $165,166,167$; CHEM $337 / 347$ or CHEM 232/ 234. (spring, even years)

## BIOL 388 Animal Physiology 5

Study of the function of animals, with emphasis on processes that contribute to the success and survival of animals in their respective environments. Nerve and muscle function, hormonal regulation, osmoregulation, digestion, and thermoregulation. Four lecture and three laboratory hours per week. Prerequisites: BIOL 165, 166, 167; CHEM 232/234 or CHEM 337/347. (fall)

BIOL 391 Special Topics 1 to 5
BIOL 392 Special Topics 1 to 5
BIOL 393 Special Topics 1 to 5
BIOL 415 Fundamentals of Immunology 3
Humoral and cellular immune systems; clonal selection theory; antigen and antibody properties and interactions, immunological diversity; autoimmune diseases; AIDS; cancer immunology; monoclonal antibodies and immunotherapy. Prerequisites: BIOL 165, 200/ 210; CHEM 102 or CHEM 337 or CHEM 232. (spring, even years)

## BIOL 422 Medical Microbiology

Study of clinically significant bacterial and viral pathogens. Characteristics of pathogenic microorganisms and their mechanisms of pathogenesis at the cellular and molecular level will be emphasized. Epidemiological and immunological aspects of microbial diseases will also be considered. Three lecture hours per week. Prerequisites: BIOL 220 or 300; CHEM 102 or CHEM 337, or CHEM 232. (spring, odd years)

BIOL 440 Molecular Genetics
Study of heredity at the molecular level, including gene structure, transcription, mutation, DNA replication, recombitant DNA methodologies and their applications. Three lectures and one laboratory per week. Prerequisites: BIOL 165; CHEM 337/347 or 232/242. (winter)

## BIOL 470 General Ecology

 5Study of the interactions between organisms in biological communities and the relationship of biological communities to the environment. Topics include: population growth and regulation, competition and predation, community energetics and nutrient cycling, comparative ecosystem analysis, and the evolution of ecosystems. Laboratory exercises include: field sampling techniques, experimental population manipulations, and ecosystem modeling. Four lecture and three laboratory hours per week. One weekend field trip. Prerequisites: MATH 120; BIOL 165, 166, 167. Recommended: BIOL 235 or BIOL 252; PSYC 201. (fall, spring)

## BIOL $485 \quad$ Cell Physiology

Cellular structure and function from a molecular approach. Topics include: membrane transport, bioenergetics, cell division, protein synthesis and secretion, gene regulation, and cell motility. Emphasis on biochemical laboratory techniques. Four lecture and three laboratory hours per week. Prerequisites: BIOL 165, 166, 167; CHEM $337 / 347$ or 232/234. (fall)

## BIOL 487 Biology Senior Synthesis: 2 to 4 Independent Experience

Gives students the opportunity to integrate their liberal arts background from the core with studies in their major. Varying with individual students' needs, it may involve independent laboratory or field research, library research, or practical work experience. A written project proposal and final report are required. Prerequisites: senior standing in biology major or permission of department chair. (fall or winter) (formerly BL 494)

## BIOL 488 Biology Senior Synthesis: Seminar 1 <br> Follows BIOL 487. Each student orally presents the results of his/her independent experi-

 ence to students and faculty in the Biology Department. Prerequisites: senior standing, BIOL 494. (spring) (formerly BL 495)BIOL 491 Special Topics 1 to 5

BIOL 492 Special Topics 1 to 5
BIOL 493 Special Topics 1 to 5
BIOL 496 Independent Study 1 to 5
BIOL 497 Directed Reading 1 to 5
BIOL 498 Directed Research 1 to 5
BIOL 499 Undergraduate Research 1 to 5
Literature and laboratory investigation of a basic research problem. Preparation of a written report. N grade option approved for research project. Prerequisite: permission of chair. (fall, winter, spring)

## Chemistry

Susan C. Jackels, PhD, Chair

## Objectives

Programs offered by the chemistry department are designed to prepare the student for professional work in the various fields of basic and applied chemistry. The degree program of bachelor of science in chemistry or bachelor of science in biochemistry is recommended to students who wish to prepare themselves for graduate studies in chemistry, biochemistry, or for medical/dental school. By completion of additional approved credits in chemistry beyond the minimum requirements for the B.S. in chemistry degree, the student is eligible for certification of the degree by the Committee on Professional Training of the American Chemical Society.

The bachelor of arts degree is recommended for those desiring a solid foundation in chemistry along with greater freedom of choice for elective courses from programs such as education, business, engineering, or other fields within the university.

The medical technology program is designed to prepare students for professional careers as technologists in medical or biological research laboratories. Students with a B.S. in medical technology are eligible for professional certification after completing a one-year internship in an accredited laboratory training program.

## Degrees Offered

Bachelor of Arts
Bachelor of Science in Chemistry
Bachelor of Science in Biochemistry
Bachelor of Science in Medical Technology

## Majors Offered

Chemistry
Biochemistry
Medical Technology

## Minor Offered

Chemistry

## Bachelor of Arts Major in Chemistry

In order to earn the bachelor of arts degree with a major in chemistry, students must complete a minimum of 180 quarter credits with a cumulative and major/department grade point average of 2.0 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English .............................................................................. 5
PHIL 110 Introduction to Philosophy and Critical Thinking .............................. 5
Choose one of the following two courses: ...................................................................... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin
II. Major Program Requirements
Forty-seven credits in chemistry, including:
CHEM 121 General Chemistry I ..... 4
CHEM 131 General Chemistry Lab I ..... 1
CHEM 122 General Chemistry II ..... 4
CHEM 132 General Chemistry Lab II .....
CHEM 123 General Chemistry III ..... 4
CHEM 133 General Chemistry Lab III ..... 1
CHEM 219 Quantitative Analysis ..... 5
CHEM 231 Fundamental Organic Chemistry I ..... 4
CHEM 233 Fundamental Organic Chemistry Lab I ..... 2
CHEM 232 Fundamental Organic Chemistry II ..... 4
CHEM 234 Fundamental Organic Chemistry Lab II ..... 2
CHEM 361 Physical Chemistry II ..... 3
CHEM 363 Physical Chemistry Lab I ..... 2
Choose 10 credits from among the following electives ..... 10
CHEM 260 Laboratory Safety (2)
CHEM 326 Instrumental Analysis (5)
CHEM 360 Physical Chemistry I (3)
CHEM 362 Physical Chemistry III (3)
CHEM 364 Physical Chemistry Lab II (2)
CHEM 415 Advanced Inorganic Chemistry (3)
CHEM 425 Synthetic Inorganic Chemistry Lab (2)
CHEM 436 Advanced Organic Chemistry (3)
CHEM 454 Biochemistry I (3)
CHEM 455 Biochemistry II (2)
CHEM 456 Biochemistry III (3)
CHEM 464 Biochemisty Lab I (2)
CHEM 465 Biochemistry Lab II (1)
CHEM 499 Undergraduate Research ( 1 to 6)and special topics or independent study courses.
III. Other Major Department Requirements
MATH 134 Calculus and Analytic Geometry I ..... 5
MATH 135 Calculus and Analytic Geometry II ..... 5
MATH Elective (above MATH 135) ..... 5
Choose physics series a. or b. ..... 15
a. PHYS 105 Mechanics and SoundPHYS 106 Electricity, Magnetism, and ThermodynamicsPHYS 107 Survey of Modern Physics
b. PHYS 200 MechanicsPHYS 201 Electricty and Magnetism
PHYS 202 Waves, Optics, and Thermodynamics
Bachelor of Science in Chemistry
In order to earn the bachelor of science in chemistry degree, students must complete aminimum of 180 quarter credits with a cumulative and major/department grade pointaverage of 2.0 , including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin
II. Major Requirements
Sixty credits in chemistry, including:
CHEM 121 General Chemistry I ..... 4
CHEM 131 General Chemistry Lab I ..... 1
CHEM 122 General Chemistry II ..... 4
CHEM 132 General Chemistry Lab II ..... 1
CHEM 123 General Chemistry III ..... 4
CHEM 133 General Chemistry Lab III ..... 1
CHEM 219 Quantitative Analysis ..... 5
CHEM 326 Instrumental Analysis ..... 5
CHEM 335 Organic Chemistry I ..... 3
CHEM 345 Organic Chemistry Lab I ..... 2
CHEM 336 Organic Chemistry II. ..... 3
CHEM 346 Organic Chemistry Lab II ..... 2
CHEM 337 Organic Chemistry III ..... 4
CHEM 347 Organic Chemistry Lab III ..... 2
CHEM 360 Physical Chemistry I ..... 3
CHEM 363 Physical Chemistry Lab I ..... 2
CHEM 361 Physical Chemistry II ..... 3
CHEM 364 Physical Chemistry Lab II ..... 2
CHEM 362 Physical Chemistry III ..... 3
CHEM Electives ..... 6
III. Other Major Department Requirements
MATH 134 Calculus and Analytic Geometry I ..... 5
MATH 135 Calculus and Analytic Geometry II ..... 5
MATH 136 Calculus and Analytic Geometry III ..... 5
PHYS 200 Mechanics ..... 5
PHYS 201 Electricity and Magnetism ..... 5
PHYS 202 Waves, Optics, and Thermodynamics ..... 5
Choose one of the following two courses: ..... 3 or 5
CSSE 103 Introduction to Computers and Applications (5)
MATH 232 Multivariable Calculus (3)
Please Note: 1. A student is eligible for certification of the degree by the American Chemical Society if the 6 -credit elective, above under II, is replaced by CHEM 415 , CHEM 425 , and seven additional credits of approved advanced work in chemistry. 2. For students planning graduate work, MATH 232, MATH 233 , MATH 234 , PHYS 204, and PHYS 205 , or CHEM $454,455,456$, 464 , and 465 are strongly recommended as electives.

## Bachelor of Science in Biochemistry

In order to earn the bachelor of science in biochemistry degree, students must complete a minimum of 180 quarter credits with a cumulative and major/department grade point average of 2.0 , including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western CivilizationHIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) .....  5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin
II. Major Requirements
Sixty credits of chemistry, including:
CHEM 121 General Chemistry I ..... 4
CHEM 131 General Chemistry Lab I ..... 1
CHEM 122 General Chemistry II ..... 4
CHEM 132 General Chemistry Lab II .....  1
CHEM 123 General Chemistry III ..... 4
CHEM 133 General Chemistry Lab III ..... 1
CHEM 219 Quantitative Analysis ..... 5
CHEM 335 Organic Chemistry I ..... 3
CHEM 345 Organic Chemistry Lab I ..... 2
CHEM 336 Organic Chemistry II ..... 3
CHEM 346 Organic Chemistry Lab II ..... 2
CHEM 337 Organic Chemistry III ..... 4
CHEM 347 Organic Chemistry Lab III ..... 2
CHEM 361 Physical Chemistry II ..... 3
CHEM 363 Physical Chemistry Lab I ..... 2
Choose one of the following two courses: ..... 3
CHEM 415 Advanced Inorganic Chemistry
CHEM 436 Advanced Organic Chemistry
CHEM 454 Biochemistry I ..... 3
CHEM 455 Biochemistry II ..... 2
CHEM 456 Biochemistry III ..... 3
CHEM 464 Biochemistry Lab 1 ..... 2
CHEM 465 Biochemistry Lab II ..... 1
Choose option a. or b.: ..... 5
a. CHEM 326 Instrumental Analysis (5)
b. CHEM 362 Physical Chemistry III (3)CHEM 364 Physical Chemistry Lab II (2)
III. Other Major Department Requirements
BIOL 165 General Biology I ..... 5
BIOL 440 Molecular Genetics ..... 5
BIOL 485 Cell Physiology ..... 5
MATH 134 Calculus I ..... 5
MATH 135 Calculus II ..... 5
MATH 136 Calculus III ..... 5
PHYS 200 Mechanics ..... 5
PHYS 201 Electricity and Magnetism ..... 5
PHYS 202 Waves, Optics, and Thermodynamics ..... 5

## Bachelor of Science in Medical Technology

In order to earn the bachelor of science in medical technology degree, students must complete a minimum of 180 quarter credits with a cumulative and major/department grade point average of 2.0 , including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) .....  5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin
II. Major Requirements
Forty-one credits, including:
CHEM 121 General Chemistry I ..... 4
CHEM 131 General Chemistry Lab I ..... 1
CHEM 122 General Chemistry II ..... 4
CHEM 132 General Chemistry Lab II ..... 1
CHEM 123 General Chemistry III ..... 4
CHEM 133 General Chemistry Lab III .....
CHEM 219 Quantitative Analysis ..... 5
CHEM 231 Fundamental Organic Chemistry I ..... 4
CHEM 232 Fundamental Organic Chemistry II ..... 4
CHEM 233 Fundamental Organic Chemistry Lab I ..... 2
CHEM 234 Fundamental Organic Chemistry Lab II ..... 2
CHEM 454 Biochemistry I .....  3
CHEM 455 Biochemistry II ..... 2
CHEM 464 Biochemistry Lab 1 ..... 2
CHEM 465 Biochemistry Lab II ..... 1
CHEM Electives ..... 1
III. Other Major Department Requirements
Choose two of the following three courses: ..... 10
BIOL 165 General Biology I
BIOL 166 General Biology II
BIOL 167 General Biology III
BIOL 200 Anatomy and Physiology I ..... 5
BIOL 210 Anatomy and Physiology II ..... 5
Choose one of the following two courses: ..... 5
BIOL 220 Microbiology
BIOL 300 Microbiology
BIOL 240 Genetics ..... 4
BIOL 415 Fundamentals of Immunology ..... 3
BIOL 485 Cell Physiology ..... 5
BIOL Electives ..... 4
CSSE 103 Introduction to Computers and Applications ..... 5
MATH 131 Calculus for Life Sciences ..... 5
PHYS 105 Mechanics and Sound ..... 5
PHYS 106 Electricity, Magnetism, and Thermodynamics ..... 5Please Note: Professional certification requires one year of internship in an accreditedlaboratory training program after completion of the degree. Application for internship isnormally made in November for internships starting the following year.
Minor in Chemistry
In order to earn a minor in chemistry, students must complete 35 credits in chemistry, including:
CHEM 121 General Chemistry I ..... 4
CHEM 131 General Chemistry Lab I ..... 1
CHEM 122 General Chemistry II ..... 4
CHEM 132 General Chemistry Lab II ..... 1
CHEM 123 General Chemistry III ..... 4
CHEM 133 General Chemistry Lab III ..... 1
CHEM 219 Quantitative Analysis ..... 5
CHEM Elective ( 200 level or above) ..... 5
Organic chemistry ( 200 level or above) ..... 10
See policy for minors on p. 43 .

## Teacher Education

The teacher preparation program is a graduate-level program only. Students planning to become elementary or secondary chemistry or general science teachers must complete a bachelor's degree prior to beginning the teacher preparation program. They should contact the Master in Teaching program at (206) 296-5759 to be assigned an adviser to ensure that they meet state requirements for an academic program as well as the specific requriements for MIT admission.

## Chemistry Courses

Credit may be received for only one of each of the following pairs of courses: CHEM 231/ $335 ; 232 / 336 ; 233 / 345 ; 234 / 346$. A student who completes CHEM 231 with a grade of B or better may enroll in CHEM 336 with the permission of the instructor.

## CHEM 101 Introductory General Chemistry

Survey of inorganic chemistry, treating the basic principles and descriptive material relevant to the health sciences. Four lecture and three laboratory hours per week. (fall)

## CHEM 102 Introductory Organic and Biochemistry

 5Organic chemistry and introduction to biochemistry with application to the health sciences. Four lecture and three laboratory hours per week. Prerequisite: CHEM 101 or equivalent. (spring)
CHEM 121 General Chemistry I 4
CHEM 122 General Chemistry II 4

1. Atomic and molecular structure, oxidation-reduction reactions, mass relationships, periodic properties, acids, bases, ionic reactions. 2. Thermochemistry, gases, solutions, equilibria. 3. Thermodynamics, kinetics, electrochemistry, nuclear chemistry, chemistry of metals and nonmetals. Four lecture hours per week. Prerequisites: CHEM 101 or 110 or high school chemistry for CHEM 121; 121 (with C- or better) for 122; 122 (with C- or better) for 123; Corequisites: 131 for 121; 132 for 122; 133 for 123. (121, fall, winter; 122, winter, spring; 123, spring, summer)

## CHEM 131 General Chemistry Lab I 1

CHEM 132 General Chemistry Lab II 1
Introduction to basic laboratory procedures and safety, practice in modes of scientific inquiry, including observation, measurement, data collection, interpretation and evaluation of results, and reporting. Three hours per week. Prerequisite: CHEM 131 for 132. Corequisites: CHEM 121 for 131 ; 122 for 132. (131, fall, winter; 132, winter, spring)
CHEM 133 General Chemistry Lab III 1
Introduction to qualitative chemical analysis on a semimicro scale. Experimentation in the chemistry of ionic systems and basic quantitative analytical methods. Four hours per week. Corequisite: CHEM 123; Prerequisite: CHEM 132. (spring, summer)

## CHEM 219 Quantitative Analysis

5
Theory, methods, and techniques of gravimetric, volumetric, electro-analytical, and chromatographic procedures in quantitative analysis; introductory statistics. Two lecture and six laboratory hours per week. Prerequisites: CHEM 123 (with C- or better) and 133. (fall, winter)

CHEM 231

Fundamental Organic Chemistry I
4

CHEM 232 Fundamental Organic Chemistry II 4
Structure, bonding, nomenclature, reactions, and synthesis of organic compounds: 1) alkanes, alkenes, alkynes, alkyl halides, aromatic, and heteroaromatic compounds; 2) alcohols, ethers, phenol, thiols, aldehydes, ketones, carboxylic acids and derivatives, amines, carbohydrates, amino acids, and proteins. Spectroscopic applications. Each is four lecture hours per week. Prerequisites: CHEM 123 (with C- or better), 133 for 231; 231 for 232. (231 winter; 232 spring) (Not recommended for premed students)
CHEM 233 Fundamental Organic Chemistry Lab I ..... 2
CHEM 234 Fundamental Organic Chemistry Lab II ..... 2

Techniques used in synthesis, isolation, and identification of organic compounds. Each is four laboratory hours per week. CHEM 231 is the corequisite for 233; CHEM 232 for 234; CHEM 233 is the prerequisite for 234 . ( 233 winter; 234 spring)

## CHEM 260 Laboratory Safety

Important aspects of hazardous chemicals and laboratory safety, including pertinent laws and regulations. Establishing and maintaining a safe working environment in the laboratory. Prerequisite: One quarter of general chemistry. (spring, summer)
CHEM 291
Special Topics
1 to 5
CHEM 292
Special Topics
1 to 5
CHEM 293
Special Topics


#### Abstract

CHEM 326 Instrumental Analysis 5 Theory and techniques of instrumental methods representative of spectrometric, electroanalytical and chromatographic techniques. Two lecture and two four-hour laboratory periods per week. Prerequisites: CHEM 219, 361. (spring)

\section*{CHEM 335 Organic Chemistry I 3 CHEM 336 Organic Chemistry II 3 CHEM 337 Organic Chemistry III 4 <br> Structural theory; functional groups; nomenclature; properties, applications, reactions, and syntheses of organic compounds; stereochemistry; reaction mechanisms; kinetic and thermodynamic properties of reactions. 1. Hydrocarbon compounds; 2. Oxygen-containing compounds; 3 . Nitrogen containing compounds and biomolecules. Four lecture hours per week. Prerequisites: CHEM 123 (with C- or better) for CHEM 335, CHEM 335 (with C or better) for CHEM 336, CHEM 336 (with C or better) for CHEM 337. (CHEM 335 fall, CHEM 336 winter, CHEM 337 spring)}


## CHEM 345 Organic Chemistry Lab I <br> 2

Theory and practice of laboratory techniques; experimental study of properties of organic compounds; introduction to organic synthesis. Four hours per week. Prerequisite: CHEM 133. Corequisite: CHEM 335 (fall)

## CHEM 346 Organic Chemistry Lab II 2

Application of laboratory techniques in simple and multistep syntheses; qualitative and quantitative measurements of properties of organic compounds; determination of kinetic and thermodynamic parameters. Four hours per week. Prerequisite: CHEM 345; Corequisite: CHEM 336. (winter)

## CHEM 347 Organic Chemistry Lab III 2

Instrumental and classical qualitative techniques applied to the identification of organic compounds. Five hours per week. Prerequisite: CHEM 346 (or 234) Corequisite: CHEM 337 (or prerequisite 232). (spring)
CHEM 360 Physical Chemistry I 3
CHEM 361 Physical Chemistry II 3
CHEM 362 Physical Chemistry III 3

1. Quantum chemistry, spectroscopy, photochemistry. 2. States of matter, thermodynamics, equilibrium, kinetics. 3. Theory of reaction rates, thermodynamics of solutions, phase equilibrium, electrochemistry, statistical thermodynamics. Three lectures per week. 1 may be taken either before or after 2 and 3. Prerequisites: CHEM 123, CHEM 133, MATH 136, and one year of physics for CHEM 360 and CHEM 361; CHEM 361 for CHEM 362. (CHEM 360 -fall, CHEM 361 -winter, CHEM 362 -spring)
CHEM 363 Physical Chemistry Laboratory I 2
CHEM 364 Physical Chemistry Laboratory II 2
Quantitative measurements of physical chemical phenomena, detailed data analysis, evaluation. Four laboratory hours per week. Prerequisites: CHEM 219 for CHEM 363; CHEM 363 for CHEM 364. CHEM 361 is corequisite for CHEM 363 ; CHEM 362 is corequisite for CHEM 364. (CHEM 363 -winter; CHEM 364 -spring)

## CHEM 392

Special Topics
1 to 5
CHEM 393 Special Topics
1 to 5
CHEM 396 Directed Study
1 to 5
CHEM 415 Advanced Inorganic Chemistry 3
Advanced topics in inorganic chemistry, with particular attention to the transition metals, including their compounds, properties and biochemistry. Prerequisite: CHEM 360 or permission of chair. (winter)
CHEM 425 Synthetic Inorganic Chemistry Laboratory 2
Synthesis and characterization of inorganic compounds involving a variety of laboratory techniques and instrumentation, including: high temperature, vacuum line or inert atmosphere and nonaqueous solvent syntheses and characterization by FTNMR, FTIR, conductivity, GC, magnetic susceptibility and UV-Vis spectroscopy. Four laboratory hours per week. Prerequisite: CHEM 219 and CHEM 415. (spring)

## CHEM 436 Advanced Organic Chemistry 3

Advanced topics in organic chemistry. Directed reading and/or lectures. Prerequisite: CHEM 361 and one year organic chemistry. (spring)
CHEM 454 Biochemistry 1 3
Structure and function of amino acids, proteins, lipids, carbohydrates and nuclear acids. Kinetics and mechanisms of enzyme action. Molecular aspects of cell biology and function. Prerequisistes: BIOL 165 or permission of chair; C or better in CHEM 232 or CHEM 337, (fall) (formerly CHEM 450)

## CHEM 455 Biochemistry II

2
Mechanistic study of the biosynthesis of nucleic acids and proteins using directed readings. Two lecture hours per week. Prerequisite: CHEM 454. (winter) (formerly CHEM 452)

CHEM 456 Biochemistry III 3
Intermediary metabolism: A study of the metabolism of carbohydrates, lipids, amino acids, and nucleic acids with emphasis on enzymology, thermodynamics, metabolic control mechanisms, and integration of control between metabolic pathways. Prerequisite: CHEM 454 (spring)

## CHEM 460 Advanced Physical Chemistry 3

Quantum chemistry, vibrational and rotational energies, absorption and emission of radiation, molecular symmetry, group theory, electronic spectra. Prerequisite: one year of physical chemistry.
CHEM 464 Biochemistry Lab I 2
Current laboratory methods in biochemistry including amino acid analysis, enzyme kinetics, protein purification techniques, gel electrophoresis, immunoblotting, and fatty acid analysis. Prerequisites: CHEM 234 or CHEM 347; C or better in CHEM 219. Corequisite: CHEM 454 (fall)
CHEM 465 Biochemistry Lab II 1
Methods of biotechnology including the polymerase chain reaction. Three laboratory hours per week. Prerequisities: CHEM 454 and CHEM 464. Corequisite: CHEM 455 (winter)

## CHEM 490 Senior Synthesis

1 to 3
Capstone activity in chemistry, biochemistry, or related field, generally involving an independent laboratory experience with integration of the major and the university core. Prerequisites: junior standing in chemistry, biochemistry, medical technology, and permission of chair. A minimum of four laboratory hours per week per credit. (fall, winter, spring, summer)

CHEM 491 Special Topics 1 to 5
CHEM 492 Special Topics 1 to 5
CHEM 493 Special Topics 1 to 5
CHEM 496 Independent Study 1 to 5
CHEM 497 Directed Reading 1 to 5
CHEM 498 Directed Research 1 to 5
Permission of chair required.
CHEM 499 Undergraduate Research 1 to 6
Literature and laboratory investigation of a basic research problem.
A minimum of four laboratory hours per week per credit. Permission of chair.

# Civil and Environmental Engineering 

Rolf Skrinde, PhD, P.E., Chair

## Objectives

Civil engineering is the knowledge of mathematical and physical sciences that serves to develop ways to economically use the materials and forces of nature. It is used in creating, improving, and protecting the environment; in providing facilities for community living, industry, and transportation; and in providing structures for the use of mankind.

The Civil and Environmental Engineering Department is dedicated to the education of professional civil and environmental engineers. This implies the application of the highest standards of excellence in education, performance of services, and ethical conduct. It also implies that specialization in engineering subjects is integrative with courses that speak to the arts and culture of civilization and to the study of natural systems.

To accomplish these ends, analysis and design courses in the fields of environmental, geotechnical, hydraulic, structural, and water resources engineering are offered in addition to preparatory courses in sciences and basic mechanics. A broad base of theory is provided, along with sufficient quantity of current practices of the profession.

## Degree Offered

Bachelor of Science in Civil Engineering

## Majors Offered

Civil Engineering
Civil Engineering with Specialization in Environmental Engineering

## Departmental Requirements

In addition to the prerequisites, departmental candidacy in one of the engineering departments is required for entry into 300 - and 400 -level courses. Candidacy is achieved by successfully completing all required 100 - and 200 -level civil engineering, chemistry, computer science, mechanical engineering, mathematics, and physics courses with a combined grade point average of at least 2.50 , as well as ENGL 110. Only courses graded C (2.0) or better may be transferred into the department to offset degree requirements.

For graduation, a minimum 2.5 cumulative grade point average is required, as well as a minimum 2.5 average in Seattle University classes in science, computer science, physics, mathematics, and engineering courses.

Taking the Washington state Fundamentals of Engineering (FE) examination is required for the degree. This degree is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

## Bachelor of Science in Civil Engineering Major in Civil Engineering

In order to earn the bachelor of science in civil engineering degree, students must complete a minimum of 192 credits including 45 credits in core curriculum, with a cumulative and major/department grade point average of 2.5 , including the following:
I. Core Curriculum Requirements
Students majoring in civil engineering must earn a minimum of 45 credits in the corecurriculum.
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western CivilizationHIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I (not economics) ..... 5
Social Science II satisfied by CEEGR 402
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary satisfied within major.Senior synthesis filled by CEEGR 487, 488, 489.
See detailed core curriculum information in this bulletin
II. Major Requirements
Seventy-five credits, including:
CEEGR 221 Strength of Materials I ..... 4
CEEGR 222 Strength of Materials Lab I ..... 2
CEEGR 311 Engineering Measurements ..... 5
CEEGR 323 Strength of Materials II ..... 4
CEEGR 324 Strength of Materials Lab II ..... 2
CEEGR 331 Fluid Mechanics ..... 4
CEEGR 335 Applied Hydraulics ..... 4
CEEGR 337 Fluids Lab ..... 2
CEEGR 351 Engineering Geology ..... 3
CEEGR 353 Soil Mechanics ..... 3
CEEGR 371 Water Resources I-Surface Water Hydrology ..... 3
CEEGR 402 Engineering Economy ..... 3
CEEGR 445 Structural Mechanics ..... 5
CEEGR 473 Environmental Engineering I-Fundamentals ..... 5
CEEGR 487 Engineering Design I ..... 4
CEEGR 488 Engineering Design II ..... 4
CEEGR 489 Engineering Design III ..... 4
Choose elective sequence $a$. or $b$. ..... 10
a. CEEGR 447 Structural Design ICEEGR 449 Structural Design IIb. CEEGR 474 Environmental Engineering II - Water Supply and Waste WaterEngineering
CEEGR 475 Solid and Hazardous Waste Engineering
Choose one of the following four courses: ..... 4
CEEGR 455 Foundation Design
CEEGR 461 Introduction to Urban Transportation Engineering
CEEGR 472 Water Resources II - Applied Hydrology
CEEGR 485 Cold Regions Engineering
III. Other Major Department Requirements
CHEM 121 General Chemistry I ..... 4
CHEM 131 General Chemistry Lab I ..... 1
MMEGR 105 Engineering Graphics and Design ..... 3
MMEGR 210 Statics ..... 4
MMEGR 230 Dynamics ..... 5
MMEGR 321 Thermodynamics ..... 4
MMEGR 381 Engineering Methods ..... 4
MATH 134 Calculus and Analytic Geometry I ..... 5
MATH 135 Calculus and Analytic Geometry II ..... 5
MATH 136 Calculus and Analytic Geometry III ..... 5
MATH 232 Multivariable Calculus ..... 3
MATH 233 Linear Algebra ..... 3
MATH 234 Differential Equations ..... 4
PHYS 200 Mechanics ..... 5
PHYS 201 Electricity and Magnetism ..... 5
PHYS 202 Waves, Optics, and Thermodynamics ..... 5
Science elective ..... 5
Unspecified elective ..... 2Please Note: Fundamentals of Engineering (FE) examination is required for graduation.
Bachelor of Science in Civil Engineering Major in Civil Engineering with a Specialization in Environmental Engineering
In order to earn the bachelor of science in civil engineering degree with a specializationin environmental engineering, students must complete a minimum of 45 credits in corecurriculum and 192 credits total. A cumulative 2.5 grade point average is required, inaddition to a 2.5 average in major/department requirements, including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western CivilizationHIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I (not economics) ..... 5
Social Science II satisfied by CEEGR 402
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary satisfied within major.Senior synthesis filled by CEEGR 487, 488, 489.
Students majoring in civil engineering with an environmental engineering specialty mustearn a minimum of 45 credits in the core curriculum. See detailed core curriculuminformation in this bulletin.
II. Major Requirements
Seventy credits, including:
CEEGR 221 Strength of Materials I ..... 4
CEEGR 222 Strength of Materials Lab I ..... 2
CEEGR 331 Fluid Mechanics ..... 4
CEEGR 335 Applied Hydraulics ..... 4
CEEGR 337 Fluids Lab ..... 2
CEEGR 341 Biological Principles for Environmental Engineers ..... 4
CEEGR 342 Environmental Engineering Chemistry ..... 4
CEEGR 351 Engineering Geology ..... 3
CEEGR 353 Soil Mechanics ..... 3
CEEGR 371 Water Resources I-Surface Water Hydrology ..... 3
CEEGR 402 Engineering Economy ..... 3
CEEGR 473 Principles of Environmental Engineering ..... 5
CEEGR 474 Water Supply and Wastewater Engineering ..... 5
CEEGR 475 Solid and Hazardous Waste Engineering ..... 5
CEEGR 476 Environmental Law and Impact Studies ..... 3
CEEGR 487 Engineering Design I ..... 4
CEEGR 488 Engineering Design II ..... 4
CEEGR 489 Engineering Design III ..... 4
Choose one of the following three courses: ..... 4
CEEGR 343 Air Pollution EngineeringCEEGR 455 Foundation Design
CEEGR 472 Water Resources II-Ground Water Systems
III. Other Major Department Requirements
CHEM 121 General Chemistry I ..... 4
CHEM 131 General Chemistry Lab I ..... 1
CHEM 122 General Chemistry II ..... 4
CHEM 132 General Chemistry Lab II ..... 1
MMEGR 105 Engineering Graphics and Design ..... 3
MMEGR 210 Statics ..... 4
MMEGR 230 Dynamics ..... 5
MMEGR 321 Thermodynamics ..... 4
MMEGR 381 Engineering Methods ..... 4
MATH 134 Calculus and Analytic Geometry I ..... 5
MATH 135 Calculus and Analytic Geometry II ..... 5
MATH 136 Calculus and Analytic Geometry III ..... 5
MATH 232 Multivariable Calculus ..... 3
MATH 233 Linear Algebra ..... 3
MATH 234 Differential Equations ..... 4
PHYS 200 Mechanics ..... 5
PHYS 201 Electricity and Magnetism ..... 5
PHYS 202 Waves, Optics, and Thermodynamics ..... 5
Choose one of the following two courses: ..... 5
BIOL 101 Principles of BiologyBIOL 165 General Biology I
Unspecified elective ..... 2Please Note: Fundamentals of Engineering (FE) examination is required for graduation.
Civil and Environmental Engineering Courses
CEEGR 221 Strength of Materials I ..... 4Mechanics of solid deformable bodies; relationships between the external forces acting onelastic bodies and the stresses and deformations produced. Members subjected to tension,compression, flexure, and torsion. Four lecture hours and one hour of recitation/quiz perweek. Prerequisites: MMEGR 230, MATH 232. (fall, spring)
CEEGR 222 Strength of Materials Laboratory I ..... 2Laboratory experiments on the mechanics of solid deformable bodies and the relationshipsbetween tension, compression, flexure, and torsion. Developing technical report writingskills; use of spreadsheets and computer graphics. Four hours per week. Pre- or corequisite:CEEGR 221. (fall, spring)
CEEGR 291 Special Topics ..... 1 to 5
CEEGR 292 Special Topics ..... 1 to 5
CEEGR 293 Special Topics ..... 1 to 5
CEEGR 311 Engineering Measurements ..... 5Introduction to surveying and mapping. Concepts, instruments and practice of engineeringmeasurements, topographic mapping, public land system, boundary surveys, aerial photo-grammetry, and the global position system; error adjustment, earthwork, and highwaycurve design. Four lectures and one laboratory period per week. Prerequisites: MATH 120,121, and MMEGR 105. (spring)
CEEGR 323 Strength of Materials II ..... 4Continuation of the mechanics of solid deformable bodies. Beam topics, stability ofcolumns, combined stresses and strains, fatigue and energy relationships. Four lecturehours and one hour of recitation/quiz per week. Prerequisites: CEEGR 221, MATH 234.(winter)
CEEGR 324 Strength of Materials Laboratory II ..... 2Laboratory experiments on the mechanics of solid deformable bodies and the stresses anddeformations produced. Members under combined loads of tension, compression, torsionand flexure; behavior of composite beams, indeterminate beams and long slender columns.Improving technical writing skills; use of spreadsheets and computer graphics. Four hoursper week. Pre- or corequisite: CEEGR 323. (winter)
CEEGR 331 Fluid Mechanics ..... 4Fluid properties. Elementary mechanics of incompressible fluids. Hydrostatics and fluidkinematics. Continuity and energy equations. Fluid resistance phenomena and estimationsfor laminar and turbulent flows. Momentum equation and dynamic forces. Basic hydraulicmachinery and power calculations. Pre- or corequisite: MMEGR 230. (fall, winter)

## CEEGR 335 Applied Hydraulics

4
Extension and application of fluid mechanics principles. Pipes in series and in parallel. Branching pipes and pipe networks. Pipeline system curves. Analysis of pumping systems. Dynamic similitude and hydraulic modeling. Basic open channel flow. Prerequisite: CEEGR 331. (winter, spring)

CEEGR 337 Fluids Laboratory 2
Experimental calibration of various flow meters, loss coefficients, and pipe friction factors. Experimental verification of various principles of fluid mechanics. One lecture and one four-hour laboratory per week. Prerequisite: CEEGR 331. (winter, spring)
CEEGR 341 Biological Principles for Environmental Engineers 4 Basic principles of microbiology and biochemistry as applied to environmental control and wastewater treatment. Kinetic and energetic aspects are emphasized. Effects of domestic and industrial water pollution on the biological characteristics of natural waters and aquatic life are studied. Prerequisite: BIOL 101 or BIOL 165 or equivalent. (fall)
CEEGR 342 Environmental Engineering Chemistry 4
Principles of chemical kinetics and thermodynamics applied to fundamental understanding of aqueous environmental samples, including natural waters, wastewaters, and treated waters; factors controlling inorganic and organic chemical concentrations, acid-base equilibria, and absorption phenomena. Prerequisites: CHEM 121, CHEM 131, CHEM 122, CHEM 132, or equivalent. (winter)
CEEGR 343 Air Pollution Engineering 4
Introductory course in air pollution and its control. Topics include air pollutants and their effects, sources, dispersion models, engineering control, and quality legislation. Junior standing in engineering recommended. (spring)

## CEEGR 351 Engineering Geology

Mineral composition of earth crust; types of rocks, their formation, structures and engineering properties; structural geology; plate tectonics; seismicity; introduction to and use of topographic maps, aerial photographs and geologic maps in engineering projects. Geotechnical field exploration. Erosional and depositional land forms of gravity, river and glaciers. Importance of geology in engineering projects. Three lecture hours per week. (fall)

## CEEGR 353 Soil Mechanics

Engineering properties and classification of soils; compaction, permeability, effective stress concept, consolidation, settlements and time rate of settlements, shear strength of soils, strength measurements of soils, field investigation. Three lecture hours and one laboratory session per week. Prerequisites: CEEGR 221, CEEGR 351. Corequisite: CEEGR 331. (winter)

## CEEGR 371 Water Resources I - Engineering Hydrology

 3Hydrologic data sources, collection, and analysis, including frequency analysis. Precipitation, runoff, evaporation, and transpiration. Analysis of stream flow, hydrographs, flood mitigation, and drainage basins. Prerequisite: CEEGR 331. (spring)
CEEGR 391 Special Topics ..... 1 to 5
CEEGR 392 Special Topics ..... 1 to 5
CEEGR 393 Special Topics ..... 1 to 5
CEEGR 402 Engineering Economy ..... 3
Elements of immediate and long-term economy of facility design, construction and main-tenance; interest rates, present worth and prospective return on investment; depreciationand replacement studies. Senior standing recommended. (fall, winter)
CEEGR 403 Project and Systems Management ..... 5
Introduction to project and construction management. How to plan and organize theseservices. Network scheduling, contracting procedures, risk, analysis, and estimating.Senior standing recommended.
CEEGR 445 Structural Mechanics ..... 5Classical and matrix methods in structural mechanics. Basic structural theory in bothclassical and matrix notation. Introduction to structural computer programs. Prerequisite:CEEGR 323. (fall)
CEEGR 447 Structural Design I ..... 5
CEEGR 449 Structural Design II ..... 5Design of basic structural members and connections. Specific structural design buildingcodes. I. Steel design. II. Reinforced and prestressed concrete design. Prerequisite: CEEGR445. (I. winter, II. spring)
CEEGR 455 Foundation Design ..... 4Design considerations for foundations. Introduction to bearing capacity theory and lateralearth pressures. Design of shallow and deep foundations. Design of retaining walls,temporary earth retaining structures, and engineered soils. Soil stability analysis. Subsur-face investigation for determining soil properties. Prerequisite: CEEGR 353.
CEEGR 472 Water Resources II - Applied Hydrology ..... 4Geologic and hydrologic occurrence of ground water. Analytical solutions for ground waterflow. Hydraulics of radial flow and pumping systems. Reservoir capacity, operation andsedimentation. Prerequisite: CEEGR 371. (fall)
CEEGR 473 Principles of Environmental Engineering ..... 5Introduction to water and wastewater treatment processes, air pollution control andhazardous waste management through the understanding of physical, chemical, andbiological processes as well as mass balance analyses. Four lectures and one laboratory orfield trip per week. Prerequisites: CHEM 121, CHEM 131. (fall)

## CEEGR 474 Water Supply and Wastewater Engineering

Physical, chemical, and biological process design for water supply and wastewater treatment. Four lectures and one laboratory or field trip per week. Prerequisite: CEEGR 473. (winter)

## CEEGR 475 Solid and Hazardous Waste Engineering 5

Explores the fate and transport of hazardous materials in the environment. Regulatory considerations, programmatic criteria and remediation technologies are also evaluated. Prerequisite: CEEGR 473, CEEGR 474, or permission of instructor. (spring)

## CEEGR 476 Environmental Law and Impact Studies <br> 3

Social, economic, and engineering factors involved in environmental regulations. National and regional water policies, programs, and administration. Emphasis on national environmental policy act and its implementation. Terminology of environmental inventory, assessment, and impact statement. Senior standing recommended. (winter)

## CEEGR 477 Selected Topics in Environmental Engineering

A comprehensive study of a topic in environmental engineering not covered in another course. Topics will vary to keep pace with current environmental risk assessment, technical advances, research developments, and the EPA's innovative technology program. Senior standing in engineering or science recommended.

## CEEGR 485 Cold Regions Engineering

Engineering considerations in design of structures, utilities, and other facilities under cold climate conditions. Senior standing recommended. (formerly CEE 481)

## CEEGR 487 Engineering Design I

4
Design process, problem solving and decision making, modeling and simulation, optimization, economics, forecasting, reliability. Four lecture hours per week. Senior standing recommended. Corequisite: CEEGR 402. (fall)

## CEEGR 488 Engineering Design II 4

CEEGR 489 Engineering Design III 4
Group design project focusing on the integrative aspects of engineering subject matter. The project should focus on: (1) philosophy of design, a creative approach, and a comprehensive design project; planning, organizing and leading an engineering project, exercising judgment and considering economic factors; and (2) integrated aspects of creative design and analysis; case studies; design of a novel device or system. Two lecture and four design hours per week. The three-course series fulfills the senior synthesis core requirement. Prerequisite: CEEGR 487 for CEEGR 488; CEEGR 488 for CEEGR 489. (CEEGR 488, winter; CEEGR 489, spring)
CEEGR 491
Special Topics 1 to 5

CEEGR 492
CEEGR 493
Special Topics
1 to 5

CEEGR 496
CEEGR 497
CEEGR 498
Special Topics 1 to 5

Independent Study 1 to 5
Directed Reading 1 to 5
Directed Research 1 to 5

# Computer Science/Software Engineering 

David Umphress, Ph.D., Chair

## Objectives

The computer science program seeks to prepare students for careers that require sophisticated programming and computer applications in industrial, scientific, technical or educational settings, and to incorporate into the program the principles and techniques of software engineering. The program provides solid foundations for understanding the changing roles of computers in society and encourages students to apply their knowledge to solving a variety of problems through laboratory and project activities.

Recognizing that different people study computer science for different reasons, the department offers both bachelor of science and bachelor of arts degrees. The bachelor of science in computer science (BSCS) degree program provides a rigorous professional, technical educational background, appropriate for a career in software development or for entry into graduate study in computer science. A general option is available, as well as two specific options, the bachelor of science in computer science with a specialization in mathematics, and the bachelor of science in computer science with specialization in business. These specialized options within the BSCS degree program enable students to develop greater interdisciplinary expertise which will better equip them for jobs demanding these skills in the workplace.

The bachelor of arts (BA) degree program offers a sound foundation in computer science courses, while allowing greater flexibility in determining an area of application of the acquired computing skills. It is an excellent preparation for students interested in professional careers involving computer applications in less technical areas such as business or education.

Both the BSCS and BA degree programs require that all students complete a capstone experience, the year-long senior software engineering project which requires students to work in small groups to complete a substantial software system project, working with a faculty adviser and a sponsoring organization from business or industry.
In addition to the bachelor's degree programs, the department offers a computer science minor, as well as computer literacy courses.

## Degrees Offered

Bachelor of Arts
Bachelor of Science in Computer Science
Master of Software Engineering - See the Graduate Bulletin of Information

## Majors Offered

Computer Science
Computer Science with Specialization in Mathematics
Computer Science with Specialization in Business

## Minor Offered

Computer Science

## Departmental Requirements

In addition to the stated course prerequisites, departmental candidacy is required for entry into all 300 - and 400 -level courses. Candidacy is achieved by completing all required 100 - and 200 -level computer science requirements, other program requirements (math and science), and ENGL 110 with a combined grade point average of at least 2.5 . Only courses graded C (2.0) or higher may be transferred to satisfy degree requirements. Both the cumulative grade point average and grade point average for major/department courses completed at Seattle University must be at least 2.5 for graduation.

Taking the Graduate Record Examination (GRE) in the computer science area is required for both the BA and BSCS degrees.

## Bachelor of Arts Major in Computer Science

The bachelor of arts degree with a major in computer science requires students to complete a minimum of 180 quarter credits with both a cumulative grade point average and a major/ department grade point average of 2.5 or better (II and III below). Students must also achieve a minimum grade of 2.0 in all courses in the major requirements list (see II below).

## I. Core Curriculum Requirements

ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking. ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I. ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) .....  5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3
Senior Synthesis filled by CSSE 487, 488, and 489.
See detailed core curriculum information in this bulletin.
II. Major Requirements
Fifty-four credits in computer science, including:
CSSE 151 Fundamentals of Computer Science I. ..... 5
CSSE 152 Fundamentals of Computer Science II ..... 5
CSSE 250 Data Structures ..... 5
CSSE 251 Introduction to Computer Organization. ..... 5
CSSE 308 Technical Communication ..... 3
CSSE 310 Design and Analysis of Algorithms ..... 5
CSSE 380 Organization of Programming Languages. ..... 5
CSSE 487 Software Engineering \& Project Development I ..... 5
CSSE 488 Software Engineering \& Project Development II ..... 3
CSSE 489 Software Engineering \& Project Development III ..... 3
CSSE Electives ( 400 level) ..... 10
III. Other Major Department Requirements
MATH 134 Calculus and Analytic Geometry I ..... 5
MATH 135 Calculus and Analytic Geometry II ..... 5
Choose one of the following two courses: ..... 5
MATH 222 Discrete Structures
MATH 310 Introduction to Advanced Mathematics
Choose one of the following two courses: ..... 5
MATH 244 Fundamentals of Probability and Statistics.
MATH 351 Probability
*Area of Application ..... 30
*Bachelor of arts degree students must complete a coordinated group of application areacourses. These courses must include at least 30 credits of courses in an area of proposedapplication of computer science. These 30 credits may be those prescribed for a minor inanother department, but may not include any credits already required by the ComputerScience Department for the bachelor of arts degree. In areas of application where a minoris not prescribed, the Computer Science Department will define the acceptable applicationarea courses, with the assistance of the appropriate departments.
Please Note: 1. A minimum C (2.0) grade is required in prerequisites to all CSSE requiredcourses. 2. Transfer credits require departmental approval. 3. Taking the Graduate RecordExamination (GRE) in the computer science area is required for the bachelor of arts degree.
Bachelor of Science in Computer Science Major in Computer Science - General Option
The bachelor of science in computer science degree (BSCS) requires students to completeat least 180 quarter credits with both a cumulative grade point average and a major/department grade point average of 2.5 or better (see II and III below). Students must alsoachieve a minimum grade of 2.0 in all courses in the major requirements list (see II below).
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western Civilization.HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3
Senior Synthesis filled by CSSE 487, 488, 489
See detailed core curriculum information in this bulletin.
II. Major Requirements
Seventy-four credits in computer science, including:
CSSE 151 Fundamentals of Computer Science I ..... 5
CSSE 152 Fundamentals of Computer Science II ..... 5
CSSE 250 Data Structures ..... 5
CSSE 251 Introduction to Computer Organization ..... 5
CSSE 252 Computer Systems and Assembler Language ..... 5
CSSE 308 Technical Communication ..... 3
CSSE 310 Design and Analysis of Algorithms. ..... 5
CSSE 320 Object-oriented Development ..... 5
CSSE 380 Organization of Programming Languages ..... 5
CSSE 440 Operating Systems ..... 5
CSSE 487 Software Engineering \& Project Development I ..... 5
CSSE 488 Software Engineering \& Project Development II ..... 3
CSSE 489 Software Engineering \& Project Development III ..... 3
CSSE Electives (400-level) ..... 15
III. Other Major Department Requirements
Forty-eight credits in mathematics, physics, and science including:
MATH 134 Calculus and Analytic Geometry I ..... 5
MATH 135 Calculus-and Analytic Geometry II ..... 5
MATH 136 Calculus and Analytic Geometry III ..... 5
MATH 233 Linear Algebra ..... 3
PHYS 200 Mechanics ..... 5
PHYS 201 Electricity and Magnetism ..... 5
PHYS 202 Waves, Optics and Thermodynamics ..... 5
Science ..... 5
Choose one of the following two courses: ..... 5
MATH 222 Discrete StructuresMATH 310 Introduction to Advanced Mathematics
Choose one of the following two courses: ..... 5
MATH 244 Fundamentals of Probability and Statistics
MATH 351 Probability
Please Note: 1. A minimum C(2.0) grade is required in prerequisites to all CSSE required courses. 2. Transfer credits require departmental approval. 3. Taking the Graduate Record Examination (GRE) in the computer science area is required for the bachelor of science in computer science degree. 4. With departmental approval the MATH 134, 135, 136 sequence can be fulfilled by a three quarter or a two semester calculus sequence at another institution. 5. The science course may be any physics, chemistry, or biology course which is acceptable toward the physics, chemistry, or biology major.

## Bachelor of Science in Computer Science Major in Computer Science with a Specialization in Business

The business specialty will prepare students for information management or information technology positions, which are increasingly critical in most companies. In addition to computer science requirements ( 55 credits), the student will take at least 45 credits of business foundation courses through the Albers School of Business and Economics.

This bachelor of science in computer science degree requires students to complete at least 180 quarter credits with both a cumulative grade point average and a major/ specialization/department grade point average of 2.5 or better (see II, III, and IV below). Students must also achieve a minimum grade of $\mathrm{C}(2.0)$ in all courses in the major and specialization requirements list (see II and III below).

## I. Core Curriculum Requirements

ENGL 110 Freshman English. .............................................................................. 5
PHIL 110 Introduction to Philosophy and Critical Thinking. .............................. 5
Choose one of the following two courses: ..................................................................... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature .................................................................. 5
Lab Science ......................................................................................................... 5
FINR 120 or approved fine arts alternate .......................................................... 5
PHIL 220 Philosophy of the Human Person ........................................................ 5
Social Science I (not economics) ............................................................................ 5
Social Science II filled by ECON 271
Theology and Religious Studies Phase II(200-299) ................................................. 5
Ethics (upper division) ............................................................................................. 5
Theology and Religious Studies Phase III (300-399) .............................................. 5
Interdisciplinary ....................................................................................................... 3
Senior Synthesis filled by CSSE 487, 488, 489
See detailed core curriculum information in this bulletin.
II. Major Requirements

Fifty-four credits in computer science, including:
CSSE 151 Fundamentals of Computer Science I ................................................ 5
CSSE 152 Fundamentals of Computer Science II ................................................ 5
CSSE 250 Data Structures. ................................................................................ 5
CSSE 251 Introduction to Computer Organization. ............................................ 5
CSSE 308 Technical Communication .................................................................. 3
CSSE 310 Design and Analysis of Algorithms.. .................................................... 5
CSSE 380 Organization of Programming Languages............................................ 5
CSSE 487 Software Engineering \& Project Development I ................................... 5
CSSE 488 Software Engineering \& Project Development II ................................... 3
CSSE 489 Software Engineering \& Project Development III................................. 3
CSSE Elective (400-level) .......................................................................... 10
III. Business Specialization Requirements
Forty-five credits in business courses, including:
(No course substitution/waiver is allowed within these requirements.)
ACCT 230 Principles of Accounting I (Financial) ..... 5
ACCT 231 Principles of Accounting II (Managerial) ..... 5
ECON 271 Principles of Economics-Macro ..... 5
ECON 272 Principles of Economics-Micro ..... 5
Choose five of the following courses: ..... 25
ECON 310 Quantitative Methods and Applications
ECON 330 International Economic Events \& Business Decisions ..... or
MGMT 320 Global Environment of Business
BUEN 370 Business and International Law
FINC 340 Business Finance
MGMT 380 Principles of Management
MKTG 350 Introduction to Marketing
OPER 360 Manufacturing and Service Operations
elective from ASBE (one 400-level course)
IV. Other Major Department Requirements
MATH 134 Calculus and Analytic Geometry I ..... 5
MATH 135 Calculus and Analytic Geometry II ..... 5
Choose one of the following two courses: ..... 5
MATH 222 Discrete Structures
MATH 310 Introduction to Advanced Mathematics
Choose one of the following three courses: ..... 5
MATH 244 Fundamentals of Probability and Statistics.
MATH 351 Probability
ECON 260 Business Statistics
Please Note: 1. A minimum C(2.0) grade is required in prerequisites to all CSSE required courses. 2. Transfer credits require departmental approval. 3. Taking the Graduate Record Examination (GRE) in the computer science area is required for the bachelor of science in computer science degree. 4. CSSE business specialization students must meet all prerequisites for courses taken and must be at least at junior standing when enrolled in 300/400 level courses from Albers School of Business and Economics. One 300/400 level business course may be taken beyond the business core. These students must take the above specified business specialization requirements; no course may be waived by petition.

## Bachelor of Science in Computer Science Major in Computer Science with a Specialization in Mathematics

This specialty requires students to take 65 credits in computer science and 50 credits in mathematics. The combination of mature skills in applied mathematics and strong computer applications skills is a rare and valuable combination.

This bachelor of science in computer science degree requires students to complete at least 180 quarter credits with both a cumulative grade point average and a major/ specialization grade point average of 2.5 or better (see II and III below). Students must also achieve a minimum grade of $\mathrm{C}(2.0)$ in all courses in the major and specialization requirements (see II and III below).

## I. Core Curriculum Requirements

ENGL 110 Freshman English ............................................................................... 5
PHIL 110 Introduction to Philosophy and Critical Thinking .............................. 5
Choose one of the following two courses: ..................................................................... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ................................................................. 5
FINR 120 or approved fine arts alternate .......................................................... 5
PHIL 220 Philosophy of the Human Person ....................................................... 5

Social Science I ........................................................................................................ 5
Social Science II (different discipline from Social Science I) .................................. 5
Theology and Religious Studies Phase Il (200-299)................................................ 5
Ethics (upper division).......................................................................................... 5
Theology and Religious Studies Phase III (300-399). .............................................. 5
Interdisciplinary ....................................................................................................... 3
Senior Synthesis filled by CSSE 487, 488, 489
See detailed core curriculum information in this bulletin.

## II. Major Requirements

Sixty-four credits in computer science courses, including:
CSSE 151 Fundamentals of Computer Science I ................................................ 5
CSSE 152 Fundamentals of Computer Science II................................................. 5
CSSE 250 Data Structures ................................................................................. 5
CSSE 251 Introduction to Computer Organization ............................................ 5
CSSE 308 Technical Communication ................................................................. 3
CSSE 310 Design and Analysis of Algorithms ...................................................... 5
CSSE 320 Object-oriented Development ........................................................... 5
CSSE 380 Organization of Programming Languages........................................... 5
CSSE 487 Software Engineering \& Project Development I .................................. 5
CSSE 488 Software Engineering \& Project Development II ................................. 3
CSSE 489 Software Engineering \& Project Development III................................. 3
CSSE Electives (400 level) ....................................................................... 15
III. Mathematics Specialization Requirements
Fifty credits in mathematics courses, including:
MATH 134 Calculus and Analytic Geometry I ..... 5
MATH 135 Calculus and Analytic Geometry II ..... 5
MATH 136 Calculus and Analytic Geometry III ..... 5
MATH 232 Multivariable Calculus ..... 3
MATH 233 Linear Algebra ..... 3
MATH 234 Differential Equations ..... 4
Choose one of the following two courses: ..... 5
MATH 222 Discrete Structures
MATH 310 Introduction to Advanced Mathematics
Choose one of the following two courses: ..... 5
MATH 244 Fundamentals of Probability and Statistics.
MATH 351 Probability
Choose three of the following four courses: ..... 15
MATH 361 Applied Mathematics I
MATH 331 Introduction to Complex Variables
MATH 371 Introduction to Numerical Methods
MATH 461 Applied Mathematics II
Please Note: 1. A minimum C (2.0) grade is required in prerequisites to all CSSE requiredcourses. 2. Transfer credits require departmental approval. 3. Taking the Graduate RecordExamination (GRE) in the computer science area is required for the B.S. degree.
Minor in Computer Science
In order to earn a minor in computer science, students must complete 30 quarter credits in computer science, selected from:
CSSE 151 Fundamentals of Computer Science I ..... 5
CSSE 152 Fundamentals of Computer Science II ..... 5
CSSE 250 Data Structures ..... 5
CSSE 251 Introduction to Computer Organization ..... 5
CSSE 310 Design and Analysis of Algorithms ..... 5
CSSE 320 Object-oriented Development ..... 5
CSSE 380 Organization of Programming Languages ..... 5
See policy for minors on p. 43.

## Advanced Placement Credit

Students who have taken the College Board advance placement test in computer science may petition the department for advanced placement credit on the basis of test results scored three or higher.

## Teacher Education

The teacher preparation program is a graduate-level program only. Students interested in teaching should contact the Master in Teaching program at (206) 296-5759 to be assigned an adviser to ensure that they meet state requirements for an academic program as well as the specific requirements for MIT admission.

## Computer Science Courses

## CSSE 103 Introduction to Computers and Applications 5

An introduction to computer applications and concepts. Applications include word processing, spreadsheets, databases, electronic mail, and other Internet tools. Also covers historical development of computers. A brief introduction to hardware and software, and other concepts of modern computing. Computer-related social and ethical issues. No prior experience with computers required. Credit not granted for both CSSE 103 and CSSE 104. Prerequisites: none. (fall, winter, spring)

CSSE 151 Fundamentals of Computer Science I 5
Introduction to the fundamentals of computer science, including programming, in a structured, modular language, with emphasis on programming design and style. Algorithm development, stepwise refinement, elementary searching and sorting algorithms. Brief history of computer hardware and software; discussion of the social implications of computers. Pre- or corequisite: MATH 134. (fall, winter)
CSSE 152 Fundamentals of Computer Science II 5

Continuation of the introduction to the fundamentals of computer science, including string processing, recursion, internal searching and sorting, simple data structures, such as stacks, queues, and linked lists, and binary trees. Prerequisite: a C (2.0) grade or better in CSSE 151. (winter, spring)

| CSSE 191 | Special Topics | 1 to 5 |
| :--- | :--- | ---: |
| CSSE 192 | Special Topics | 1to |
| CSSE 193 | Special Topics | 1 to 5 |
| CSSE 230 | FORTRAN for Science and Engineering | 3 |

Introduction to FORTRAN programming for science and engineering computing. Emphasis on algorithm development and stepwise refinement for solving science and engineering problems. Introduction to numerical techniques. Laboratory programming assignments will be taken primarily from the fields of engineering and science. Credit not granted for both CSSE 230 and CSSE 231. Prerequisites: MMEGR 215 or 230; plus MATH 232 and 233

## CSSE 231 C Programming for Science and Engineering

Introduction to C programming, in a UNIX environment, for science and engineering computing. Emphasis on algorithm development, stepwise refinement for solving science and engineering problems. Programming assignments will be drawn from the fields of engineering and science. Credit not granted for both CSSE 230 and CSSE 231. Prerequisites: MMEGR 215 or 230; plus MATH 232 and 233

## CSSE 250

Data Structures
5
Abstract data types, dynamic data structures (e.g., trees, heaps) and their applications. Additional topics include hashing, file manipulation, tree balancing techniques, and sorting algorithms (e.g., quicksort, heapsort, mergesort, bucketsort). Prerequisite: a C (2.0) or better in CSSE 152. (fall, spring) (Previously titled File Processing and Database Concepts.)

## CSSE 251 <br> Introduction to Computer Organization

5
Basic concepts of computer architecture and digital logic design. Coding of information, number representations, and computer arithmetic. Computer architecture concepts, including CPU, memory and I/O organization. Control unit implementation and microprogramming. Prerequisites: a C (2.0) grade or better in the following: CSSE 152. Pre- or corequisite MATH 222 or MATH 310. (fall, spring)

## CSSE 252 Computer Systems and Assembler Language <br> 5

Elementary computer structure, machine languages, assembly language programming. Programming will be done in assembly language. Addressing techniques, macros, linkers, loaders, and assemblers. Prerequisite: a C (2.0)grade or better in CSSE 251. (winter)
CSSE 291 Special Topics 1 to 5
CSSE 292 Special Topics 1 to 5
CSSE 293 Special Topics 1 to 5
CSSE 296 Directed Study 1 to 5
CSSE 308 Technical Communications 3
Communication skills for computer professionals. Writing, speaking, electronic communication. Structure and content of software documentation. Prerequisites: a C (2.0) grade or better in the following: CSSE 250, ENGL 110 . (winter)
CSSE 310 Design and Analysis of Algorithms 5
Advanced data structures (e.g., sets, graphs, priority queues) and their applications; algorithm analysis and design techniques (e.g., divide and conquer, greedy methods, branch and bound, etc.). Introduction to computability theory. Prerequisites: a C (2.0) or better in the following: CSSE 250 and MATH 222 or 310. (fall, winter) (Previously titled Data Structures and Analysis of Algorithms.)
CSSE 320 Object-Oriented Development 5
Fundamentals and principles of object-oriented development. Object-oriented analysis, design, and programming. Prerequisite: C (2.0) grade or better in CSSE 310. (spring)
CSSE 380 Organization of Programming Languages 5
Introduction to the structure and organization of programming languages; syntax and semantics; data and control structures; implementation and translation considerations. The course will include programming assignments in different languages. Prerequisite: C (2.0) grade or better in CSSE 310. (spring)

CSSE 391 Special Topics 1 to 5
CSSE 392 Special Topics 1 to 5
CSSE 393 Special Topics 1 to 5
CSSE 396 Directed Study 1 to 5
CSSE 420 Introduction to Database Systems 5
Introduction to database concepts, the need for database management systems, survey of DBMS systems and their use. Elementary concepts of DBMS architecture and design. Prerequisite: C (2.0) grade or better in CSSE 310.

## CSSE $440 \quad$ Operating Systems 5

Basic concepts of operating systems, including machine structures, dynamic processes, system structures; memory management, I/0 control, process management, file systems, security issues and recovery techniques. Prerequisites: C (2.0) grade or better in CSSE 251, CSSE 310 and either MATH 244 or MATH 351. (formerly CSSE 340) (winter)
CSSE 444 Concurrent Systems 5 Concurrency in software and hardware. From sequential to concurrent programming. Correctness of concurrent programs. Semaphores. Mutual exclusion. The producerconsumer problem. Monitors. Rendezvous and distributed processing. Object-oriented approaches to concurrency. Hardware support for parallel processing, including pipeline computers, array processors, and dataflow computers. Prerequisites: C (2.0) grade or better in CSSE 252 and 440.

## CSSE 450 Automata, Computability and Formal Languages 5

Formal mathematical basis of computer science. Topics include set theory, recursive functions, automata, regular sets, formal languages, Turing machines, concepts of computability and computational complexity. Prerequisites: a C (2.0) grade or better in CSSE 310.
CSSE 465 Computer Graphics and Image Processing 5
Fundamentals of computer graphics. Drawing two-dimensional shapes. Processing of gray scale images, segmentation, contour filling, thinning algorithms, algorithms for curvefitting and display. Creating three-dimensional graphic displays, shading, and shadowing algorithms. Prerequisites: Minimum C (2.0) grade in CSSE 310.

## CSSE $470 \quad$ Artificial Intelligence

 processing considerations, classical problems in artificial intelligence, and applications. Prerequisite: a C (2.0) grade or better in CSSE 310.CSSE 485 Translation of Programming Languages 5
Formal language definitions and descriptions. Syntax, semantics, parsing and translating techniques. Prerequisites: C (2.0) grade or better in CSSE 380.

| CSSE 487 | Software Engineering and <br> Project Development I | 5 |
| :--- | :--- | ---: |
| CSSE 488 | Software Engineering and <br> Project Development II | 3 |

## CSSE 489 Software Engineering and 3 Project Development III

Principles of software engineering and their application in the planning and execution of a three-quarter-long software development project. Students work in teams to define and carry out software projects from initial requirement statements to final implementation. Activities include project planning and management, as well as analysis, design, and implementation of the software product. In CSSE 487, projects are defined and requirement specifications develped by the project teams. The required software products are then designed and implemented in CSSE 488 and 489, culminating in a formal presentation of results. Two one-hour lecture sessions per week, in addition to project team activities. The three courses, CSSE 487, 488, and 489, must be taken as a continuous sequence and fulfill the senior synthesis core requirement. Prerequisites for CSSE 487: Minimum C (2.0) in CSSE 380; Pre- or corequisite CSSE 308. Prerequisites for CSSE 488: CSSE 487 plus permission of the department. Prerequistes for CSSE 489: CSSE 488 plus permission of the department. (487, fall; 488, winter; 489, spring)

| CSSE 491 | Special Topics | 1 to 5 |
| :--- | :--- | :--- |
| CSSE 492 | Special Topics | 1 to 5 |
| CSSE 493 | Special Topics | 1 to 5 |
| CSSE 496 | Independent Study | 1 to 5 |
| CSSE 497 | Directed Reading | 1 to 5 |
| CSSE 498 | Directed Research | 1 to 5 |

# Diagnostic Ultrasound 

Jeff Pope, MEd, RDMS Chair

## Objectives

The diagnostic ultrasound program prepares students for the profession of diagnostic medical sonography. Founded on a concentration in basic sciences, the program affords simultaneous opportunities for receiving a liberal arts education, as well as didactic and practical exposure to a range of ultrasound specialties. This approach leads not only to competence in the practice of sonography, but also to the development of future leaders in the field.

## Degree Offered

Bachelor of Science in Diagnostic Ultrasound

## Major Offered

Diagnostic Ultrasound

## Accreditation

The diagnostic ultrasound program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

## Departmental Requirements

Individuals may apply for the major of diagnostic ultrasound as freshmen or transfer students from other colleges. Some supplementary materials are required with transfer student applications (please consult with department). Applicants are encouraged to participate in volunteer or paid health care related activities that promote the development of communication and interpersonal skills and provide an opportunity to evaluate their own suitability to work with patients and the public.

The major requirements as well as pathophysiology I and II and physics 350 are taken the third and fourth year of the program. Prior to the third year of the program all students will have completed the math and science prerequisites and all but fifteen(15) credits of the core requirements. Advancement to the third year courses also involves review and approval by department chair and advisers. The final year of the program is twelve(12) months of internship in a health care facility which is arranged by a clinical coordinator.

## Bachelor of Science in Diagnostic Ultrasound

In order to earn the bachelor of science in diagnostic ultrasound degree, students must complete a minimum of 180 quarter credits with a cumulative and major/program grade point average of 2.3 , including the following:I. Core Curriculum RequirementsENGL 110 Freshman English5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) (prefer Health Care Ethics) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary satisfied by DIUS 370
Senior Synthesis satisfied by Ultrasound Internship
See detailed core curriculum information in this bulletin.
II. Major Requirements
Eighty-one credits in diagnostic ultrasound, including:
DIUS 330 Diagnostic Ultrasound I ..... 5
DIUS 331 Diagnostic Ultrasound II ..... 5
DIUS 332 Echocardiography ..... 5
DIUS 333 Methods of Cardiac Evaluation ..... 2
DIUS 334 Vascular Evaluation and Doppler ..... 3
DIUS 335 Introduction to Instrumentation (lab) ..... 1
DIUS 336 Research Design and Statistics ..... 2
DIUS 355 Human Cross Section Anatomy ..... 5
DIUS 370 Health Care Management and Professional Issues ..... 3
DIUS 375 Ultrasound Instrumentation ..... 4
Senior Synthesis: Ultrasound Internship*
DIUS 473 Clinical Orientation to Ultrasound* ..... 10
DIUS 474 Clinical Experience in Ultrasound I* (must be taken three times, 8 credits each) ..... 24
DIUS 487 Ultrasound Seminar I* (must be taken four times, 2 credits each) ..... 8
DIUS 488 Basic Science of Ultrasound* (must be taken twice, 2 credits each) ..... 4
*A calendar-year internship is necessary for entry into professional employment andcertification. This internship is a part of the degree and follows after the academic courserequirements are met. Because of the professional nature of the program, qualities otherthan a good grade point average are required of internship candidates.
Please Note: Students must provide verification from a physician of good health andimmunization prior to ultrasound-specific courses.
III. Other Major Department Requirements
BIOL 165 General Biology (majors level biology, not 100/101) ..... 5
BIOL 200 Anatomy and Physiology I. ..... 5
BIOL 210 Anatomy and Physiology II ..... 5
BIOL Elective (majors level biology, not 100/101) ..... 5
CSSE 103 Introduction to Computers and Applications ..... 5
NURS 321 Pathophysiology I ..... 3
NURS 322 Pathophysiology II ..... 3
PHYS 350 Physics of Diagnostic Ultrasound ..... 3
Choose one of the following three options: 5 or 10
MATH 131 Calculus for Life Sciences (preferred) (5)
MATH 130 Elements of Calculus for Business (5)
MATH 134 and 135 Calculus and Analytic Geometry I and II (10)
Choose physics series a. or b.:
a. PHYS 105 Mechanics and Sound
PHYS 106 Electricity, Magnetism, and Thermodynamics
b. PHYS 200 Mechanics
PHYS 201 Electricity and Magnetism

Please Note: 1. MATH 120 and MATH 121 are prerequisites to PHYS 105 and MATH 131.
2 . Contact department regarding preferred course sequence.

## Diagnostic Ultrasound Courses

DIUS 330 Diagnostic Ultrasound I 5

DIUS 331 Diagnostic Ultrasound II 5
Brief review of acoustical physics, modes of display, uses and limitations of ultrasound. Pathophysiology of organ systems evaluated by ultrasound and their ultrasonic appearance. Prerequisites: BIOL 200, 210, DIUS 355, PHYS 350 . ( 330 spring, 331 winter)
DIUS 332 Echocardiography 5
Anatomy, physiology, and pathological conditions of the adult and pediatric heart, their visualization and evaluation with real-time 2-D imaging, Doppler, and M-mode echocardiography. Prerequisites: BIOL 200, 210; DIUS 355; PHYS 350. (spring)

## DIUS 333 Methods of Cardiac Evaluation 2

Integration of various modes of cardiac evaluation with echocardiography. Cardiac catheterization, ECG, auscultation, and cardiac pharmacology are covered in addition to other pertinent topics. The course serves to expand students' knowledge of cardiac physiology and pathophysiology. Corequisite or prerequisite: DIUS 332. (spring)

## DIUS 334 Vascular Evaluation and Doppler 3

 Introduction to applications of Doppler ultrasound for the detection and evaluation of vascular disease. Vascular anatomy, physiology, and pathology. Additional methods of evaluating vascular disease which complement Doppler data. Laboratory stresses hands-on experience with state-of-the-art ultrasound equipment and examination techniques. Prerequisite: DIUS 355, PHYS 350 . (winter)DIUS 335 Introduction to Instrumentation (Laboratory) 1
Integration of ultrasound physics, instrumentation, and principles with hands-on experience. Practice in modes of equipment operation and safety. Includes observation, data collection, interpretation, and evaluation of results and reporting. Course complements material presented in PHYS 350 and ultrasound courses. Pre- or corequisite; PHYS 350.
DIUS 336 Research Design and Statistics 2
Introduction to basic scientific writing, study design and critique, statistical analysis, and formulation and testing of hypotheses. Open to all qualified majors. (fall)
DIUS 355 Human Cross Section Anatomy diagnostic techniques. Prerequisites: BIOL 200 and 210. (fall)

## DIUS 370 Health Care Management and Professionalism Issues

Examination of ethical, legal, and psycho-social aspects of health care. Methods of budgeting, hiring, firing, and departmental administration. The sonographer's role in relation to the patient, physician, and staff. Fulfills interdisciplinary core requirement and is open to all qualified students. (fall)

## DIUS $375 \quad$ Ultrasound Instrumentation 4

Understanding the operation of diagnostic ultrasound equipment, including B-mode, M mode, 2-D/real-time and Doppler systems, quality assurance, and safety. Prerequisite: PHYS 350 . (winter)
DIUS 391 Special Topics 1 to 5
DIUS 392 Special Topics 1 to 5
DIUS 393 Special Topics 1 to 5
DIUS 396 Directed Study 1 to 5
DIUS 473 Clinical Orientation to Ultrasound 10
Five days per week spent in a hospital environment learning patient care, practical medical ethics, observing and performing ultrasound procedures, and other diagnostic modalities. Prerequisite: Successful completion of all DIUS didactic courses and compliance with policy \#81-3. Corequisite: DIUS 487.

## DIUS 474 Clinical Experience in Ultrasound I <br> 8

Five eight-hour days per week in an approved ultrasound department of a hospital. Prerequisite: Succesful completion of all DIUS didactic courses and compliance with policy \#81-3. Program requires this course be taken three times for a maximum of 24 credits. Corequisite: DIUS 487.

## DIUS 487 Ultrasound Seminar I 2

Seminar to review and discuss cases performed by students and issues of professional interest. Seattle-based students meet one day every week. Students based outside Seattle area have projects assigned by correspondence, by the faculty and staff. Prerequisite: Clinical internship assignment. Program requires this course be taken four times for a maximum of eight credits. Corequisite: 473 or 474 . Fulfills senior synthesis core requirement, together with DIUS 488. (formerly US 483)

## DIUS 488 Basic Science of Ultrasound 2

Project of professional interest assigned by faculty involving critical examination of current literature and research techniques. Prerequisite: Successful completion of all DIUS didactic courses and compliance with policy \#81-3. Program requires this course be taken for a maximum of four credits. Corequisite with second- and third-quarter internship, DIUS 474. Fulfills senior synthesis requirement, together with DIUS 487. (formerly US 484)

# Electrical Engineering 

Paul Neudorfer, Ph.D., Chair

## Objectives

Electrical engineering is concerned with the use of electrical energy for the benefit of society. The profession of electrical engineering is scientifically based and design oriented. As such, its practice draws heavily upon the areas of mathematics, physics, and computer science as well as other branches of engineering and natural science.
The electrical engineering program strives to provide a broad foundation that will prepare the graduate for a productive lifelong career in any of the various sub-fields of electrical engineering. The Department of Electrical Engineering is teaching oriented and offers an undergraduate program that provides an integrated, contemporary perspective of the electrical engineering profession.

Course offerings span the subspecialties of communications, systems and control theory, digital systems and signal processing, microprocessors and computers, electrical and electronic circuits, electromagnetic fields and waves, power generation and distribution, and engineering design. Students interested in careers in any specialty within the broad confines of electrical engineering are given sufficient preparation in a well-balanced program of study. The hallmark of the senior year is the capstone engineering design experience in which student teams work on multi-disciplinary engineering design projects.

Professional and personal success depend on far more than technical competence. The university core exposes electrical engineering students to the philosophical, religious, and human dimensions of life and helps to develop their critical thinking and communications skills. Electrical engineering courses also emphasize these important areas and provide a solid base for those graduates who choose to enter professional practice directly upon graduation and a rigorous preparation for those who choose graduate studies in electrical engineering.

## Degree Offered

Bachelor of Science in Electrical Engineering

## Minor Offered

Electrical Engineering

## Departmental Requirements

In addition to individual course prerequisites, departmental candidacy in one of the engineering departments is required for entry into 300 and 400 level courses. Candidacy is achieved by successfully completing all required 100 and 200 level CSSE, EEGR, MMEGR, MATH, and PHYS courses and ENGL 110 with a combined grade point average of 2.50 or better. Only courses graded C (2.0) or better may be transferred from other institutions. Once enrolled in the department, 300 and 400 level courses may be transferred only with permission.

Taking either the Washington State Fundamentals of Engineering (FE) examination or the engineering subject test of the Graduate Record Examination (GRE) is required for the degree. The degree is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

## Electrical Engineering Curricular Blocks

Courses taken to fulfill requirements toward the Bachelor of Science in Electrical Engineering degree are grouped into four interrelated curriculum blocks. The foundations block includes courses in the natural sciences, mathematics, computer science, and introductory engineering. The electrical engineering fundamentals block includes the 100, 200 , and 300 level electrical engineering courses that are required of all electrical engineering students. (These courses are listed below in the Minor in Electrical Engineering section.) The electrical engineering fundamentals block provides the basis for all advanced studies in the field. The advanced electrical engineering block includes 24 credits of elective courses and the three-quarter senior design sequence. The advanced block allows students an opportunity to explore their individual interests within the field. Finally, the university core exposes students to a broad range of the humanities, social sciences, and fine arts. Please refer to the Electrical Engineering Student Handbook, available from the department, for additional information.

## Bachelor of Science in Electrical Engineering

The Department of Electrical Engineering enacted significant curricular changes that went into effect fall 1998. Students who matriculated in the program prior to that time may graduate under the previous requirements as described in earlier editions of the Undergraduate Bulletin of Information. All such students should consult with their academic adviser in order to determine their best course of action.

In order to earn the Bachelor of Science in Electrical Engineering degree, students matriculating after June 1998 must complete a minimum of 180 quarter credits with cumulative and major/department grade point averages of 2.5 or greater. Courses must include the following:

## I. Core Curriculum Requirements

Students majoring in electrical engineering must complete a minimum of 50 credits in the core curriculum, including:
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Introduction to Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Choose one of the following two courses: ..... 5
Social Science II
FINR 120 or approved fine arts alternate
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary satisfied by EEGR 487, 488, and 489.
Senior synthesis satisfied by EEGR 487, 488, and 489.
See detailed core curriculum information elsewhere in this bulletin.
II. Major Requirements
A minimum of sixty-eight credits of electrical engineering, including: EEGR 100 Introduction to Electrical Engineering ..... 3
EEGR 201 Digital Operations and Computation ..... 4
EEGR 210 Electrical Circuits I ..... 5
EEGR 211 Electrical Circuits II ..... 4
EEGR 227 Electrical Circuits Laboratory ..... 2
EEGR 312 Linear System Analysis ..... 4
EEGR 317 Signals and Systems Laboratory ..... 2
EEGR 320 Electronics I ..... 4
EEGR 321 Electronics II ..... 4
EEGR 328 Electronic Circuits Laboratory ..... 2
EEGR 487 Engineering Design I ..... 3
EEGR 488 Engineering Design II ..... 4
EEGR 489 Engineering Design III ..... 3
EEGR Upper division electives (five lecture courses) ..... 20
EEGR Upper division electives (two laboratories) ..... 4
III. Other Major Department Requirements
CSSE 151 Fundamentals of Computer Science I ..... 5
MMEGR 181 Innovative Design ..... 2
MATH 134 Calculus and Analytical Geometry I ..... 5
MATH 135 Calculus and Analytical Geometry II ..... 5
MATH 136 Calculus and Analytical Geometry III ..... 5
MATH 232 Multivariable Calculus ..... 3
MATH 233 Linear Algebra ..... 3
MATH 234 Differential Equations ..... 4
Choose option a. or b: ..... 5
a. MATH 244 Prob. and Statistics for the Sciences and Engineering (5)
b. PHYS 205 Introduction to Quantum Physics (3)
PHYS 291 Topics in Probability (2)
PHYS 200 Mechanics ..... 5
PHYS 201 Electricity and Magnetism ..... 5
PHYS 202 Waves, Optics, and Thermodynamics ..... 5
PHYS 330 Electromagnetic Field Theory ..... 5
Elective Science/Engineering ..... 5
Minor in Electrical Engineering
To earn a minor in electrical engineering, students must complete a minimum of 30 creditsfrom among the following:
EEGR 100 Introduction to Electrical Engineering ..... 3
EEGR 201 Digital Operations and Computation ..... 4
EEGR 210 Electrical Circuits I ..... 5
EEGR 211 Electrical Circuits II ..... 4
EEGR 227 Electrical Circuits Laboratory ..... 2
EEGR 312 Linear System Analysis ..... 4
EEGR 317 Signals and Systems Laboratory ..... 2
EEGR 320 Electronics I ..... 4
EEGR 321 Electronics II ..... 4
EEGR 328 Electronic Circuits Laboratory ..... 2
See policy for minors on p. 43.

## Electrical Engineering Courses

## EEGR 100 Introduction to Electrical Engineering 3

Investigation of some major themes of electrical engineering at the introductory level. Survey of concepts and subfields of the profession through discussion and experiential learning. Suitable for students wishing to explore the possibility of electrical engineering as a career. Open to all university students. (fall, winter)
EEGR 201 Digital Operations and Computation 4 Digital processing of information and data, number-systems, Boolean algebra; design of hardware for registers, counting, and arithmetic operations; organization of computers, storage, and input/output. Introduction to simple logic circuits. Elementary concepts of programming, assembly language, and computer simulation. Open to all university students. (fall, winter)

## EEGR 210 Electrical Circuits I

Fundamental concepts and units, Kirchhoff's laws, mesh and node analysis, equivalent circuits, linearity and superposition; first and second order circuits; natural and forced responses, initial conditions; sinusoidal analysis. Prerequisite: PHYS 201. Corequisite: MATH 233. (winter, spring) (formerly 4 credits)

## EEGR 211 Electrical Circuits II 4

Phasors and impedance; Laplace transforms; system functions and the s-plane; frequency response description, Bode diagrams; AC power; two-port analysis; introduction to the digital computer in circuit analysis and design. Prerequisite: EEGR 210. (fall, spring) (formerly EEGR 311)
EEGR 227 Electrical Circuits Laboratory 2
A laboratory covering principles of electrical and electronic circuits. Test instrumentation and general laboratory practice. Technical communications. The course culminates in a class-wide team project. A one-hour lecture and one four-hour laboratory per week. Corequisite: EEGR 211 (fall, spring) (formerly EEGR 327)

## EEGR 296 Directed Study

EEGR 304 Microprocessor Design 4
Design of digital components and systems that employ microprocessors. Assembly language programming, peripheral access, and memory, interfacing the microprocessor to external systems. Three lectures and one four-hour laboratory per week. Prerequisites: EEGR 201 and programming experience or permission.

## EEGR 312 Linear System Analysis

Linear systems and response type classifications. Time-domain and frequency-domain signal representations. System functions. Impulse response. Convolution. Fourier series and transforms. Signal spectra. Prerequisite: EEGR 211, MATH 234, and departmental candidacy. (fall, winter)

## EEGR 315 Elements of Electrical Engineering 5

An introduction to major areas of electrical engineering. Topics are selected from basic circuit theory; linear systems; electronics; digital logic; electromagnetics; and energy conversion and power. Intended for engineering and natural science students not majoring in electrical engineering; Prerequisite: MATH 234 and PHYS 201. (winter)

## EEGR 317 Signals and Systems Laboratory 2

Signal acquisition and analysis. Spectral content of signals and frequency response behavior of systems. Use of spectral and network analyzers. Use of MATLAB and other engineering analysis software. A one-hour lecture and one four-hour laboratory session per week. Prerequisite: EEGR 227. Corequisite: EEGR 312. (fall, winter)

## EEGR 320 Electronics I <br> 4

Analysis and design of elementary electronic circuits including linear and non-linear circuits, and operational amplifiers. Introduction to bipolar and field effect devices and characteristics. Prerequisite: EEGR 211 and departmental candidacy. (fall, winter)
EEGR 321
Electronics II
4
Continuation of EEGR 320. Transistor amplifiers, frequency response, feedback, analog integrated circuits, introduction to oscillators. Prerequisite EEGR 320. (winter, spring)

## EEGR 328 Electronic Circuits Laborafory

Continuation of EEGR 227. Investigation of electronic circuits focusing on the design of a discrete component operational amplifier. Prerequisite: EEGR 227. Corequisite: EEGR 321. (winter, spring)
EEGR 331 Distributed Systems 4
Analysis of distributed systems; steady-state and transient analysis of loss-less lines, lossy lines; waveguides. Prerequisite: EEGR fundamentals block.

## EEGR 360 Communication Systems

Analysis and design of signal transmission systems that include amplitude, phase, frequency, and pulse modulation. Subsystem synthesis and design with comparative analysis. Communication in the presence of noise. Prerequisite: EEGR fundamentals block.

| EEGR 391 | Special Topics | 1 to 5 |
| :--- | :--- | ---: |
| EEGR 392 | Special Topics | 1 to 5 |
| EEGR 393 | Special Topics | 1 to 5 |
| EEGR 403 | Digital Signal Processing | 4 |

Linear, time invariant, discrete systems; finite moving average and recursive digital filters; Z-transform; discrete Fourier transform; fast Fourier transform. Prerequisite: EEGR 312.

EEGR 404 Introduction to VLSI Circuit Design
An introduction to the design of very large scale integrated (VLSI) circuits using silicon CMOS process technology and CAD software. Aspects of manufacturing, design, and testing are covered in lecture. The laboratory introduces students to professional-level software and culminates in a major circuit design. Three lectures and one three-hour laboratory per week. Prerequisite: EEGR fundamentals block.

## EEGR 405 Advanced Digital Design

Microprocessor-based systems design procedures; LSI circuit specifications and interconnect design; programmable logic; logic simulation; prototype construction; system debug techniques; hands-on design carried out in teams. Prerequisites: EEGR 210 and EEGR 304.

## EEGR 414 Active Networks and Filters

Design of active filters. Operational amplifier circuits. Approximation of frequency response characteristics. Sensitivity. Frequency transformations. Active two-port networks. Simulation of passive elements. Switched capacitor filters. Prerequisite: EEGR 312.

## EEGR 424 Power Electronics 4

Basic topologies and operating principles of switching power converters. Half-wave, bridge, and polyphase rectifier circuits. Phase control converters. Output control and dynamic models. Prerequisite: EEGR fundamentals block.

## EEGR 432 Microwave Systems

Propagation of electromagnetic waves and interaction with materials, guided waves, and passive and active devices, microstrip and integrated circuits. Prerequisite: EEGR fundamentals block.

## EEGR 433 Introduction to Antennas

Electromagnetic waves and radiating systems used in telecommunications. Software simulation of antenna radiation patterns. Frequency spectra used in modern communications and their effect on antenna design. Prerequisite: EEGR fundamentals block.

## EEGR 440 Control Systems

Fundamentals of classical and modern system theory; analysis and design of closed-loop systems with emphasis on stability and transient response using Nyquist, Bode, root-locus, and state-space techniques. Prerequisite: EEGR fundamentals block.

## EEGR 450 Electromechanical Energy Conversion

Electromechanical energy conversion principles and design. Application and details of electromechanical devices, such as relays, transformers, and rotating machinery. Prerequisite: EEGR fundamentals block.

## EEGR 451 Power Systems

4
Analysis of power systems: symmetrical components, power system parameters, steadystate operation, symmetrical and non-symmetrical faults. Prerequisite: EEGR 450.
EEGR 457 Electromechanical Energy Conversion Laboratory 2
A laboratory covering the principles and practice of electromechanical energy conversion devices. Corequisite: EEGR 450.
EEGR 461 Data Communications 4
An introduction to the concepts and methods of data communication. Systems, protocols, and controls used in data transfer. Media employed for data transmission and multiplexing techniques. Long-range and local networks used in data and computer communications. Prerequisite: EEGR 201 or permission.

EEGR $462 \quad$ Modern Optics
Introduction to modern optics consisting of ray optics; scalar wave optics; diffraction;
interferometry; vector wave optics and polarization; Gaussian beam optics; Fourier optics,
including image processing, spatial filtering, and holography; optical waveguides
and fibers; optical resonators; laser amplifiers and systems; semiconductor lasers and
detectors; optical switching and computing. Optional labs in holography and fiber optics.
Prerequisites: EEGR fundamentals block or PHYS 205 and PHYS 330.
EEGR $463 \quad$ Wireless Communications Systems
An introduction to issues and problems associated with modern wireless communications systems. Radio wave systems. Multipath and fading. Frequency planning. Cellular communications. Registration. Prerequisite: EEGR fundamentals block.

## EEGR 467 Communications Laboratory

 2A laboratory covering basic principles of encoding, modulation, and transmission of electronic signals. One-hour lecture and one four-hour laboratory per week. Corequisite: EEGR 360.

## EEGR 487 Engineering Design I 3

EEGR 488 Engineering Design II 4
EEGR 489 Engineering Design III 3
A year-long capstone team design project that draws upon all of the student's previous experience, both technical and non-technical. Projects require students to investigate and apply concepts not covered in coursework and to master engineering tools needed to complete the assigned task. Particular emphasis is placed upon project organization and management, principles of engineering design, oral and written communication, and professionalism and ethics. In EEGR 487, student teams are formed and industriallysponsored design problems are assigned. Project proposals are written, critiqued, and presented. In EEGR 488 and 489, problem solutions are developed and implemented, culminating in a formal presentation of results. In addition to regularly-scheduled lectures, students are expected to devote significant time to design team activities. The three courses must be taken as a continuous sequence. The Engineering Design sequence fulfills the interdisciplinary and synthesis requirements of the University Core. Prerequisite: advanced junior or senior standing in engineering. (487, fall; 488, winter; 489, spring)

## EEGR 491 <br> Special Topics <br> 1 to 5

EEGR 492 Special Topics
1 to 5
EEGR 493
Special Topics
1 to 5
EEGR 496
Independent Study
1 to 5
EEGR 497
Directed Reading
1 to 5
EEGR 498
Directed Research
1 to 5
Independent work by student on topic of mutual interest to student and an instructor. Enrollment is limited and open only to students who have agreed upon a proposed topic or course of study with the instructor. May be used as an advanced elective with departmental permission.

## General Science

Mara Rempe, Chair

## Objectives

The general science program provides special opportunities to students interested in interdisciplinary fields, such as ecology, environmental science, earth science, and premedical, predental, or preveterinary studies. The program provides a broad background in the basic sciences. Two tracks are available that allow students to specialize in different interdisciplinary areas: preprofessional and environmental science. Other curricula that do not fit these tracks can be customized for each student in consultation with the adviser. The prime objective is to enable students to gain a better understanding of the human ramifications of science and technology and to help them think realistically and creatively about intellectual, moral, and social issues related to science and technology.

## Degree Offered

Bachelor of Science in General Science

## Major Offered <br> General Science

## Specializations Offered

Preprofessional
Environmental Science

## Bachelor of Science in General Science

In order to earn the bachelor of science in general science degree with a major in general science, students must complete a minimum of 180 credits with a cumulative and major/ department grade point average of 2.0 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ............................................................................... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ............................... 5
Choose one of the following two courses ....................................................................... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ................................................................ 5
FINR 120 or approved fine arts alternate.......................................................... 5
PHIL 220 Philosophy of the Human Person ....................................................... 5
Social Science I ....................................................................................................... 5
Social Science II (different discipline from Social Science I) ................................... 5
Theology and Religious Studies Phase II (200-299) ................................................... 5
Ethics (upper division) ........................................................................................... 5
Theology and Religious Studies Phase III (300-399) ............................................... 5
Interdisciplinary ............................................................................................... 3 to 5
Senior Synthesis ...................................................................................................... 3
See detailed core curriculum information in this bulletin.
II. Major Requirements
Ninety credits in mathematics, science, and computer science including:
*Major Field ..... 30
*Minor Field ..... 20
(May not include introductory mathematics and science courses) Science Electives (see department) ..... 0 to 20
Courses used to satisfy the following requirements may, in some cases, be applied towardthe major or minor fields.
CSSE Elective ..... 5
Choose two courses from the following five: ..... 10
BIOL 165 General Biology IBIOL 166 General Biology IIBIOL 167 General Biology III
BIOL 200 Anatomy and Physiology I
BIOL 210 Anatomy and Physiology II
Choose option a. or b.: ..... 10
a. CHEM 101 Introductory General Chemistry
CHEM 102 Introductory Organic and Biochemistry
b. CHEM 121 General Chemistry ICHEM 131 General Chemistry Lab I
CHEM 122 General Chemistry II
CHEM 132 General Chemistry Lab II
Choose one set of two courses from option a., b., or c.: ..... 10
a. MATH 120 Precalculus: Algebra
MATH 131 Calculus for Life Sciences (note: MATH 121 is corequisite)
b. MATH 118 College Algebra for Business
MATH 130 Elements of Calculus for Business
c. MATH 134 Calculus and Analytic Geometry I
MATH 135 Calculus and Analytic Geometry II
Choose one set of two courses from option a. or b.: ..... 10
a. PHYS 105 Mechanics and SoundPHYS 106 Electricity, Magnetism, and Thermodynamics
b. PHYS 200 Mechanics
PHYS 201 Electricity and Magnetism
Please Note: At least $\mathbf{1 0}$ credits of the $\mathbf{9 0}$ general science required credits must befrom 300- or 400 -level classes. An additional 15 credits must be from 300 -level,400-level, or approved 200 -level courses. This may require prerequisites beyondthe minimal degree requirements. The approved 200 -level courses are CHEM 219, CHEM231/233, CHEM 232/234, MATH 232, MATH 233, MATH 234, PHYS 202, PHYS 204, and PHYS
205.*Fields allowed: biology, chemistry, diagnostic ultrasound, engineering (all engineeringcourses are one field), mathematics, physics, computer science, interdisciplinary science,and psychology (PSYC 201 and PSYC 330 only). See department for approved scienceelectives.
Bachelor of Science in General Science Preprofessional SpecializationThis track is for students interested in preparing for post-graduate programs in professionssuch as medicine, dentistry, pharmacy, osteopathic medicine, and veterinary medicine. Inorder to earn the bachelor of science in general science degree in the preprofessionaltrack, students must complete a minimum of 180 credits with a cumulative and major/department grade point average of 2.0 , including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (PHIL 352 recommended) ..... 5
Theological and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Preprofessional Senior Synthesis ..... 3
II. Major Requirements
Ninety credits in mathematics, science, and computer science, including:
BIOL 165 General Biology I ..... 5
BIOL 166 General Biology II ..... 5
BIOL 167 General Biology III ..... 5
Choose any three among the following six biology courses: ..... 15
BIOL 240 Genetics
BIOL 300 Microbiology
BIOL 310 Comparative Vertebrate Embryology
BIOL 325 Comparative Anatomy of the Vertebrates
BIOL 388 Animal Physiology
BIOL 485 Cell Physiology
CHEM 121 General Chemistry I ..... 4
CHEM 131 General Chemistry Lab I ..... 1
CHEM 122 General Chemistry II ..... 4
CHEM 132 General Chemistry Lab II ..... 1
CHEM 123 General Chemistry III ..... 4
CHEM 133 General Chemistry Lab III ..... 1
CHEM 335 Organic Chemistry I ..... 3
CHEM 345 Organic Chemistry Lab I ..... 2
CHEM 336 Organic Chemistry II ..... 3
CHEM 346 Organic Chemistry Lab II ..... 2
CHEM 337 Organic Chemistry III ..... 4
CHEM 347 Organic Chemistry Lab III ..... 2
CSSE Elective ..... 5
Choose series a. or b.: ..... 15
a. PHYS 105 Mechanics and Sound
PHYS 106 Electricity, Magnetism, Thermodynamics
PHYS 107 Survey of Modern Physics
b. PHYS 200 Mechanics
PHYS 201 Electricity and Magnetism
PHYS 202 Waves, Optics, and Thermodynamics
Choose option a., b., or c.: ..... 10
a. MATH 120 Precalculus: AlgebraMATH 131 Calculus for Life Sciences (MATH 121 is corequisite)
b. MATH 131 Calculus for Life Sciences (MATH 121 is corequisite)
PSYC 201 Statistics I
c. MATH 134 Calculus and Analytic Geometry I
MATH 135 Calculus and Analytic Geometry II
Please Note: 1. Strongly recommend taking CHEM 450, CHEM 452, and CHEM 456 aselectives. 2. Students interested in preparing for professions such as chiropractic medicine,podiatry, and physical therapy may have adjustments made in these requirements.
Bachelor of Science in General Science with Specialization in Environmental ScienceIn order to earn the bachelor of science in general science degree in the environmentalscience track, students must complete a minimum of 180 credits with a cumulative andmajor/department grade point average of 2.0 , including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I (not ECON or PLSC) ..... 5
Choose one of the following two courses for Social Science II: ..... 5
ECON 271 Principles of Economics-Macro
PLSC 205 Introduction to American Politics
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (TRST 347 recommended) ..... 5
Interdisciplinary ..... 3 to 5
Environmental Senior Synthesis ..... 3
II. Major Requirements
Ninety-five credits in mathematics, science, and computer science including:
BIOL 165 General Biology I ..... 5
BIOL 166 General Biology II ..... 5
BIOL 167 General Biology III ..... 5
BIOL 470 General Ecology ..... 5
Choose any two among the following biology courses: ..... 10
(At least one must be a 300 -level course)
BIOL 235 Invertebrate Zoology
BIOL 252 Taxonomy of Flowering Plants
BIOL 275 Marine Biology
BIOL 385 Plant Physiology
BIOL 388 Animal Physiology
Summer field studies; i.e., Aquatic Ecology, Marine Ecology (5)
CHEM 121 General Chemistry I ..... 4
CHEM 131 General Chemistry Lab I ..... 1
CHEM 122 General Chemistry II ..... 4
CHEM 132 General Chemistry Lab II. ..... 1
CHEM 123 General Chemistry III ..... 4
CHEM 133 General Chemistry Lab III ..... 1
CHEM 219 Quantitative Analysis ..... 5
CHEM 231 Fundamental Organic Chemistry I ..... 4
CHEM 233 Fundamental Organic Chemistry Lab I ..... 1
CHEM 232 Fundamental Organic Chemistry II ..... 4
CHEM 234 Fundamental Organic Chemistry Lab II ..... 1
CSSE Elective ..... 5
ISSC 120 Introduction to Geology ..... 5
Choose one of the following two courses: ..... 5
PSYC 201 Statistics IMATH 244 Probability and Statistics for the Sciences and EngineeringChoose series a. or b.:10
a. PHYS 105 Mechanics and Sound
PHYS 106 Electricity, Magnetism, and Thermodynamics
b. PHYS 200 Mechanics
PHYS 201 Electricity and Magnetism
Choose series a. or b.: ..... 10
a. MATH 120 Precalculus: Algebra
MATH 131 Calculus for Life Sciences (MATH 121 is a corequisite)
b. MATH 134 Calculus and Analytic Geometry I
MATH 135 Calculus and Analytic Geometry II

## Teacher Education

The teacher preparation program is a graduate-level program only. Students interested in teaching should contact the Master in Teaching program at (206) 296-5759 to be assigned an adviser to ensure that they meet state requirements for an academic program as well as the specific requirements for MIT admission.

## Interdisciplinary Science Courses

## ISSC 110 Science, Technology, and Society 5

The study of the nature and structure of science and technology, the interactions of science and technology, and the impact of science and technology on society. Four hours of lecture/ discussion and three laboratory hours per week. Prerequisite: MATH 107 or 110 or above. (winter, spring)

## ISSC 120 Introduction to Geology 5

Study of the principles of modern geology, with consideration of both the physical and historical aspects. Topics will include modern plate theory, tectonics, uniform processes, and the fossil record. Four hours of lecture and three hours of laboratory per week. Arranged weekend field trips. Prerequisite: MATH 107 or 110 or above.

| ISSC 191 | Special Topics | 1 to 5 |
| :--- | :--- | ---: |
| ISSC 192 | Special Topics | 1 to 5 |
| ISSC 193 | Special Topics | 1 to 5 |
| ISSC 202 | To See the Light | 5 |

A hands-on approach to the nature and uses of light: the many faces of light as seen by philosophers, artists, and scientists; theories of color; physiology and psychology of perception, light, and color in art; laser optics; camera systems; current optical technology; student light projects. Three hours of lecture/discussion and one four-hour laboratory/field trip per week. Prerequisite: MATH 107 or 110 or above.

## ISSC 205 Biophysical Principles

Interrelationships between biology, earth science, and physical science as applied to the teaching of elementary level science. Credits not applicable for biology major. Three lecture and four laboratory hours per week. Prerequisite: MATH 107 or 110 or above.
ISSC 207 Air and Water 5
Dynamics of air and water systems. Consideration of the causes and control of air and water pollution. Monitoring and standards for clean air and water. The role of technology in the deterioration of air and water quality. Four hours of lecture and three hours of laboratory per week. Prerequisite: MATH 107 or 110 or above. (spring)
ISSC 208 Sun, Food, and People 5
Introduction to ecology. The flow of solar energy through the ecosystem and the effect of this on food production. The food chain. The supply and demand of food. Pesticides and fertilizers. Past, present, and future trends in human population. Not a core lab science. Prerequisite: MATH 107 or 110 or above.

ISSC 209 Energy and Mineral Resources
The supply, demand, and resources of energy and minerals. Patterns of energy use. Fossil fuels, water power, atomic energy, their use and abuse. Renewable forms of energy. Conservation. Program for the future. Mineral resource depletion, an embryonic crisis. Solid waste and recycling. Not a core lab science. Prerequisite: MATH 107 or 110 or above.

## ISSC 315 <br> Mineralogy <br> 5

Examination of the many and varied forms that minerals take in the earth's crust, their formation, chemical composition, and environmental considerations. Four hours of lecture and three hours of laboratory per week. Prerequisites: ISSC 120, MATH 120, CHEM 121, 131, 122, 132.
ISSC 320 Geology and Mineralogy of the Pacific Northwest
The general geologic setting and basic mineralogy of the Northwest. Weekend field trips are in conjunction with the field biology course. Prerequisites: two laboratory science courses.

## ISSC 330 Field Biology of Washington 2

Life zones, habitats, plants, and animals of special interest in the state. Weekend field trips are in conjunction with the geology and mineralogy course. Prerequisites: two laboratory science courses.

## ISSC 401 The Human Response to Science and Technology 5

 A comparative-historical approach to the scientization of culture and its contemporary and projected consequences; critical evaluation of competing claims about science and technology as enlightening allies of human progress; a personal search for appropriate intellectual and ethical perspectives on science as a way of knowing and on technology as a way of living. Seminar format; guest lectures; small-group paper conferences; student-led seminars. Not a core lab science. Prerequisites: junior standing or higher, PHIL 220; HIST 120 or 121.ISSC 480 Interdisciplinary Core Course
Title and content vary.

## ISSC 481 To Feed the World 5

An interdisciplinary approach to the history, production, and distribution of food from the perspectives of paleontology, anthropology, biology, chemistry, and the social sciences; modes of scientific examination and interpretation are explored; interrelationships of science, technology, and human needs are emphasized. Active participation by students: lectures, movies, and small group discussions. Community service project required. Prerequisite: Phase II of core. (formerly ISC 301)

| ISSC 491 | Special Topics | 1 to 5 |
| :--- | :--- | :--- |
| ISSC 492 | Special Topics | 1 to 5 |
| ISSC 493 | Special Topics | 1 to 5 |
| ISSC 496 | Independent Study | 1 to 5 |
| ISSC 497 | Directed Reading | 1 to 5 |
| ISSC 498 | Directed Research | 1 to 5 |

## Mathematics

Janet E. Mills, PhD, Chair

## Objectives

The Mathematics Department offers three distinct programs. The first two are very flexible programs that provide for work in a secondary field and lead to either the bachelor of arts or the bachelor of science degree. The third, leading to the bachelor of science in mathematics degree, prepares the student for advanced study and professional work in mathematics. For this third degree program the student chooses either a pure mathematics or an applied mathematics specialization.

## Degrees Offered

Bachelor of Arts
Bachelor of Science
Bachelor of Science in Mathematics

## Major Offered

Mathematics
Mathematics, Specialization in Applied Mathematics
Mathematics, Specialization in Pure Mathematics

## Minor Offered

Mathematics

## Bachelor of Arts <br> Major in Mathematics

In order to earn the bachelor of arts degree with a major in mathematics, students must complete a minimum of 180 credits with a cumulative and major/department grade point average of 2.0 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ............................................................................... 5
PHIL 110 Introduction to Philosophy and Critical Thinking .............................. 5
Choose one of the following two courses: ...................................................................... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..................................................................... 5
Lab Science ......................................................................................................... 5
FINR 120 or approved fine arts alternate ........................................................... 5
PHIL 220 Philosophy of the Human Person ....................................................... 5
Social Science I ....................................................................................................... 5
Social Science II (different discipline from Social Science I) ................................... 5
Theology and Religious Studies Phase II (200-299) .................................................. 5
Ethics (upper division) ................................................................................................. 5
Theology and Religious Studies Phase III (300-399) .............................................. 5
Interdisciplinary ............................................................................................... 3 to 5
Senior Synthesis satisfied by MATH 487
See detailed core curriculum information in this bulletin.
II. Major Requirements
Forty-eight credits of mathematics, including:
MATH 134 Calculus and Analytic Geometry I ..... 5
MATH 135 Calculus and Analytic Geometry II ..... 5
MATH 136 Calculus and Analytic Geometry III ..... 5
MATH 232 Multivariable Calculus ..... 3
MATH 233 Linear Algebra ..... 3
MATH 234 Differential Equations ..... 4
MATH 487 Senior Synthesis ..... 3
MATH Electives (300 or above) ..... 10
Choose one of the following two courses: ..... 5
MATH 222 Discrete Structures
MATH 310 Introduction to Advanced Mathematics
Choose one of the following two courses: ..... 5
MATH 411 Introduction to Abstract Algebra IMATH 431 Introduction to Real Analysis I
III. Other Major Department Requirements
CSSE Elective ..... 5
Electives Computer science, economics, psychology, and/or natural science approved by adviser ..... 15
Please Note: All prerequisites for 300 - and 400 -level courses must be graded C (2.0), orbetter.
Bachelor of Science Major in MathematicsIn order to earn the bachelor of science degree with a major in mathematics, students mustcomplete a minimum of 180 credits with a cumulative and major/department grade pointaverage of 2.0 , including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis satisfied by MATH 487
See detailed core curriculum in this bulletin
II. Major Requirements
Fifty-eight credits of mathematics, including:
MATH 134 Calculus and Analytic Geometry I ..... 5
MATH 135 Calculus and Analytic Geometry II ..... 5
MATH 136 Calculus and Analytic Geometry III ..... 5
MATH 232 Multivariable Calculus ..... 3
MATH 233 Linear Algebra ..... 3
MATH 234 Differential Equations ..... 4
MATH 487 Senior Synthesis ..... 3
MATH Electives (300 or above) ..... 10
Choose one of the following two courses: ..... 5
MATH 222 Discrete Structures
MATH 310 Introduction to Advanced Mathematics
Choose one of the following three courses: ..... 5
MATH 351 Probability
MATH 361 Applied Mathematics I
MATH 371 Introduction to Numerical Methods
Choose two of the following five courses: ..... 10
MATH 411 Introduction to Abstract Algebra I
MATH 412 Introduction to Abstract Algebra II
MATH 431 Introduction to Real Analysis I
MATH 432 Introduction to Real Analysis II
MATH 461 Applied Mathematics II
III. Other Major Department Requirements
CSSE Elective ..... 5
Electives Computer science, engineering, natural science, and/or social science approved by adviser ..... 25
Please Note: All prerequisites for $300-400$-level courses must be graded C (2.0), or better. Under special circumstances, with approval from the department chair, MATH 244 may be substituted for MATH 351.

## Bachelor of Science in Mathematics

In order to earn the bachelor of science in mathematics degree with a major in mathematics, students must complete a minimum of 180 credits with a cumulative and major/ department grade point average of 2.50 . Students must choose one of the following two options:

## Pure Mathematics Specialization

This specialization should be chosen by any student planning to pursue graduate studies in pure or applied mathematics.

## I. Core Curriculum Requirements

ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis satisfied by MATH 487
See detailed core curriculum in this bulletin
II. Major Requirements
Sixty-eight credits in mathematics, including:
MATH 134 Calculus and Analytic Geometry I ..... 5
MATH 135 Calculus and Analytic Geometry II ..... 5
MATH 136 Calculus and Analytic Geometry III ..... 5
MATH 232 Multivariable Calculus ..... 3
MATH 233 Linear Algebra ..... 3
MATH 234 Differential Equations ..... 4
MATH 411 Introduction to Abstract Algebra I ..... 5
MATH 412 Introduction to Abstract Algebra II ..... 5
MATH 431 Introduction to Real Analysis I ..... 5
MATH 432 Introduction to Real Analysis II. ..... 5
MATH 487 Senior Synthesis ..... 3
MATH Electives (numbered 222 or above) ..... 10
Choose one of the following two courses: ..... 5
MATH 222 Discrete StructuresMATH 310 Introduction to Advanced Mathematics
Choose one of the following four courses: ..... 5
MATH 244 Fundamentals of Probability and Statistics
MATH 351 Probability
MATH 361 Applied Mathematics I
MATH 371 Introduction to Numerical Methods
III. Other Major Department Requirements
CSSE Elective ..... 5
Electives Computer science, economics and/or natural science approved by adviser ..... 15
Please Note: 1. In certain circumstances, with approval of the chair, 10 credits of upperdivision work in computer science or a physical science may be substituted for 10 credits in mathematics. 2. All prerequisites for 300 - and 400 -level courses must be graded $C(2.0)$, or better.

## Applied Mathematics Specialization

This specialization is appropriate for students planning to pursue a career in industry.
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
Lab Science ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis satisfied by MATH 487
See detailed core curriculum information in this bulletin.
II. Major Requirements
Sixty-eight credits in mathematics, including:
MATH 134 Calculus and Analytic Geometry I ..... 5
MATH 135 Calculus and Analytic Geometry II ..... 5
MATH 136 Calculus and Analytic Geometry III ..... 5
MATH 232 Multivariable Calculus ..... 3
MATH 233 Linear Algebra ..... 3
MATH 234 Differential Equations ..... 4
MATH 361 Applied Mathematics I ..... 5
MATH 461 Applied Mathematics II ..... 5
MATH 487 Senior Synthesis ..... 3
MATH Elective (222 or above) ..... 5
Choose one of the following two courses: ..... 5
MATH 222 Discrete Structures
MATH 310 Introduction to Advanced Mathematics
Choose two of the following four courses: ..... 10
(Cannot take both MATH 244 and MATH 351)
MATH 244 Fundamentals of Probability and Statistics
MATH 331 Introduction to Complex Variables
MATH 351 Probability
MATH 371 Introduction to Numerical Methods
Choose two of the following four courses: ..... 10
MATH 411 Introduction to Abstract Algebra I
MATH 412 Introduction to Abstract Algebra II
MATH 431 Introduction to Real Analysis I
MATH 432 Introduction to Real Analysis II
III. Other Major Department Requirements
PHYS 200 Mechanics ..... 5
CSSE Elective ..... 5
Electives Computer science, economics, and/or natural science approved by adviser ..... 10

Please Note: 1. In certain circumstances, with approval of the chair, 10 credits of upper division work in computer science or a physical science may be substituted for 10 credits in mathematics. 2. All prerequisites for 300 - and 400 -level courses must be graded $\mathrm{C}(2.0)$, or better.

## Minor in Mathematics

In order to earn a minor in mathematics, students must complete 30 credits in mathematics, including:
MATH 134 Calculus and Analytic Geometry I ..... 5
MATH 135 Calculus and Analytic Geometry II ..... 5
MATH 136 Calculus and Analytic Geometry III ..... 5
Approved mathematics courses ( 222 or higher) ..... 15
See policy for minors on p. 43.

## Advanced Placement in Calculus

Students who have completed a college-level course in calculus in high school and have taken the advanced placement test in calculus of the College Entrance Examination Board may petition the department for placement on the basis of their test results. Advanced placement and credit may be granted to students whose test scores are 3 or above. Advanced placement may also be obtained through departmental testing.

## Teacher Education

The teacher preparation program is a graduate-level program only. Students planning to teach in elementary or secondary schools should contact the Master in Teaching program at (206) 296-5759 to be assigned an adviser to ensure that they meet state requirements for an academic program as well as the specific requirements for admission.

## Proper Sequence for Taking Courses

The normal sequence of elementary mathematics courses is MATH 110; MATH 118 or MATH 120; MATH 130 or MATH 131 or MATH 134; MATH 135; and MATH 136. A student who has received a 2.0 or better in any course of this sequence or its equivalent cannot subsequently receive credit for a course which appears before it in the sequence. A student may not receive credit for more than two courses among MATH 107, MATH 110, and MATH 200. A student may not receive credit for more than one course from each of the following groups: MATH 118 and 120; MATH 130, MATH 131, and MATH 134; MATH 244 and MATH 351. A student who has taken MATH 130 or MATH 131 and, due to a change of major, is required to take MATH 134 as preparation for MATH 135 will receive credit for both MATH 130 (or MATH 131) and MATH 134. In these cases credit for MATH 134 will be contingent on completing MATH 135 with a 2.0 or better.

## Mathematics Courses

Eligibility to remain in courses for which students are registered will be based on the criteria listed within each course description, and will be determined by the instructor after the first day of class.

## MATH 085 Preparatory Mathematics

Arithmetic of rational numbers and percents; solutions of linear equations and applications; properties and graphs of linear equations; polynomial arithmetic, including factoring. Credit toward financial aid eligibility only; does not contribute to degree credits.

## MATH 107 Mathematics: A Practical Art

General introduction to logic, sets, probability, statistics, algorithmic processes and other selected topics. Hands-on experience with technology. Emphasis on development of quantitative skills. Prerequisite: One year each of high school algebra and geometry. (fall, winter)

## MATH 110 Functions and Algebraic Methods 5

Functions including linear, quadratic, other polynomial, and exponential. Modeling applications and problem solving emphasized. Supporting topics include equations, inequalities, systems of equations, rational expressions, exponents and radicals. Graphing calculator required. Prerequisite: University mathematics entrance requirements or satisfactory score on the Mathematics Placement Exam. (formerly MATH 101) (fall, winter, spring)

## MATH 118 College Algebra for Business

Sets; relations and functions, graphing; linear, quadratic, exponential, logarithmic functions; systems of linear equations; inequalities; linear programming; applications to business. Graphing calculator required. Prerequisite: a grade of C- or better in MATH 110 or satisfactory score on Mathematics Placement Exam. Credit not granted for both MATH 118 and MATH 120. (fall, winter)
MATH 120 Precalculus: Algebra 5
A study of functions including polynomial, rational, exponential, and logarithmic functions; composite and inverse functions; theory of polynomial equations; other selected topics. Provides review and extension of basic algebraic methods for solving equations and inequalities. Problem solving and mathematical writing are emphasized as well as algebraic skill. Graphing calculator required. Prerequisite: A grade of C- or better in MATH 110, or a satisfactory score on the Mathematics Placement Exam. Credit not granted for both MATH 118 and 120. (formerly MATH 111) (fall, winter, spring)

Radian measure, trigonometric functions and their graphs, identities, trigonometric equations, inverse trigonometric functions. Graphing calculator required. Prerequisite: A grade of C- or better in MATH 118 or MATH 120, or a satisfactory score on the Mathematics Placement Exam. (formerly MATH 115) (fall, winter, spring)

## MATH 130 Elements of Calculus for Business 5

Limits; continuity; rate of change; derivative, basic differentiation formulas, extrema; area under a curve; the definite integral and applications. Graphing calculator required. Prerequisite: a grade of C- or better in MATH 118 or MATH 120, or satisfactory score on the Mathematics Placement Exam. (fall, winter, spring)

## MATH 131 Calculus for Life Sciences 5

Limits; rate of change; derivatives, basic differentiation formulas, extrema; the definite integral. Applications to the life and social sciences. Graphing calculator required. Prerequisite: a grade of C- or better in MATH 120 and MATH 121, or satisfactory score on the Mathematics Placement Exam. Corequisite: MATH 121, unless exempted by qualifying examination. (spring)

## MATH 134 Calculus and Analytic Geometry I

 5Limits and derivatives of rational, exponential, and trigonometric functions; applications of limits and derivatives. Computer laboratory component. Graphing calculator required. Prerequisite: a grade of C- or better in MATH 120, or satisfactory score on the Mathematics Placement Exam. Corequisite: MATH 121, unless exempted by qualifying examination. (fall, winter, spring)

## MATH 135 Calculus and Analytic Geometry II 5

Theory, techniques, and applications of integration; differentiation and integration of trigonometric, exponential, and logarithmic functions; indeterminate forms; improper integrals. Graphing calculator required. Prerequisite: a grade of C- or better in MATH 134. (fall, winter, spring)

## MATH 136 Calculus and Analytic Geometry III

Infinite series; Taylor's theorem; vectors; polar coordinates; solid analytic geometry. Graphing calculator required. Prerequisite: a grade of C- or better in MATH 135. (fall, winter, spring)
MATH 200 Mathematics for K-8 Teachers 5
Systems of numeration; algorithms; elementary logic; sets; introduction to probability and statistics. Emphasis on logic and problem solving. Prerequisite: MATH 110 or 107 or equivalent. (winter or spring of even years)

## MATH 222 Discrete Structures 5

Logic; set theory; equivalence relations and partitions; algebraic structures, including Boolean algebras; combinatorics; graph theory; applications to computer science. Graphing calculator required. Prerequisites: a grade of C - or better in MATH 135 or permission of instructor; a computer programming course. (fall)
MATH 232 Multivariable Calculus 3

Partial derivatives, multiple integration, and applications. Graphing calculator required. Prerequisite: a grade of C- or better in MATH 136. (fall, winter, spring)

## MATH 233 Linear Algebra

Matrices, determinants, vector spaces, linear transformations, eigenvalues. Graphing calculator required. Prerequisite: a grade of C- or better in MATH 136. (fall, winter, spring)

## MATH 234 Differential Equations 4

First and second order differential equations; linear differential equations; systems of differential equations; power series solutions. Prerequisites: a grade of C - or better in MATH 232 and MATH 233. (fall, winter, spring)

## MATH 244 Probability and Statistics for the Sciences and Engineering

Probability models; discrete and continuous random variables, basic concepts of descriptive and statistical inference; applications. The course will include use of computer software. Prerequisite: a grade of C- or better in MATH 135, or permission of instructor. (winter, spring) Cannot apply both MATH 244 and MATH 351 toward a mathematics major.

## MATH 291 Special Topics 1 to 5

MATH 292 Special Topics 1 to 5
MATH 296 Directed Study 1 to 5
MATH 310 Introduction to Advanced Mathematics 5
Logic and proofs; quantifiers; basic notions of set theory; induction, cartesian products and relations; equivalence relations; functions; cardinality. Prerequisite: MATH 136. (spring of even years)

## MATH 321 Euclidean and Modern Geometries 5

An axiomatic approach to finite geometries and basic Euclidean geometry; straight-edge and compass constructions; problems of antiquity; special topics in Euclidean geometry. Geometric transformations, the fifth postulate and non-Euclidean geometries. Prerequisite: MATH 135. (winter of odd years)
MATH 331 Introduction to Complex Variables 5
The complex number system; analytic functions including exponential, logarithimic, and trigonometic functions; series; residues. Prerequisite: MATH 234. (fall of even years) (formerly MATH 437)

## MATH 351 Probability 5

Basic concepts and theorems in probability theory; the binomial, Poisson, normal, and other fundamental probability distributions; moments; limit theorems. Prerequisite: MATH 232. Cannot apply both MATH 244 and MATH 351 toward a mathematics major. (fall of odd years)

## MATH 361 Applied Mathematics I

Introduction to numerical methods for solving differential equations, phase plane analysis of nonlinear differential equations. Introduction to modeling. Computer laboratory component. Prerequisite: MATH 234 and PHYS 200. (winter of even years)
MATH 371 Introduction to Numerical Methods 5
Approximation and errors; solution of equations and systems of linear equations; numerical integration. Four lecture hours and one computer laboratory hour per week. Prerequisites: MATH 233; proficiency in a programming language. (winter of odd years)

MATH 381 Elementary Topology
Set theory; topology of the real line; topological spaces; compactness; connectedness; product spaces; metric spaces. Prerequisite: MATH 233. (spring of odd years)

## MATH 391 Special Topics 1 to 5 <br> MATH 392 Special Topics 1 to 5 <br> MATH 393 Special Topics 1 to 5 <br> MATH 396 Directed Study 1 to 5 <br> MATH 411 Introduction to Abstract Algebra I 5 <br> MATH 412 Introduction to Abstract Algebra II 5 <br> Theory of groups, rings, fields, and field extensions; vector spaces and linear transformations; special topics. Prerequisites: permission of instructor granted on first day of class for 411; 411 for 412. (offered in sequence: fall of even years, winter of odd years)

## MATH 431 Introduction to Real Analysis I 5

MATH 432 Introduction to Real Analysis II 5
The real number system; continuity; point set theory; partial differentiation; RiemannStieltjes integrals; sequences and series of functions; power series; uniform convergence. Prerequisites: permission of instructor granted on first day of class for $431 ; 431$ for 432. (offered in sequence: fall of odd years, winter of even years)

## MATH 461 Applied Mathematics II 5

Introduction to partial differential equations and the boundary value problems of mathematical physics; separation of variables, applications of Fourier series, Fourier transform, method of characteristics. Computer laboratory component. Prerequisite: MATH 361. (spring of even years)

MATH 480 Interdisciplinary Core Course 3 to 5
Title and content change each term.
MATH 487 Senior Synthesis 3
Problems in modern mathematics and applications. Individual projects will include a written report and a classroom presentation. Prerequisite: permission of instructor granted on first day of class. (spring) (formerly MT 481)

MATH 491 Special Topics 1 to 5
MATH 492 Special Topics 1 to 5
MATH 493 Special Topics 1 to 5
MATH 496 Independent Study 1 to 5
MATH 497 Directed Reading 1 to 5
MATH 498 Directed Research 1 to 5

# Mechanical and Manufacturing Engineering 

Rolfe Skrinde, PhD, P.E., Interim Chair

## Objectives

Mechanical engineers design, build, develop, maintain and modify the tools of our technological society. The mechanical engineer's domain is the wide realm of motion, as well as the forces and energy required for motion. Manufacturing engineers provide a key link between product design and production. They advise designing engineers about potential fabrication problems, specify manufacturing processes to the shop floor, and oversee the final production. It is the manufacturing engineer who transforms a good design into a good product.

Mechanical engineers and manufacturing engineers work in industry, consulting practice, government, and universities. They may work in classrooms, factories, offices, laboratories or testing facilities as teachers, managers, designers or researchers. Many hold managerial positions in their companies. Whether working on a new design or in corporate headquarters, these engineers are solving the technological problems of today and tomorrow.

The goal of the mechanical and manufacturing engineering program is to prepare students for a career as an engineer in design, development, research or other areas, such as engineering sales and management. The program offers a coherent series of courses in three broad categories: energy conversion, machine design/dynamic systems, and manufacturing. Creative engineering design, based on a firm theoretical and experimental foundation, is emphasized throughout the program.

## Degree Offered

Bachelor of Science in Mechanical Engineering

## Majors Offered

Mechanical Engineering
Mechanical Engineering with specialization in manufacturing engineering

## Departmental Requirements

In addition to the prerequisites, departmental candidacy in one of the engineering departments is required for entry into 300 - and 400 -level courses. Candidacy is achieved by successfully completing all required 100 and 200 level CEEGR, CHEM, MMEGR, MATH, and PHYS courses with a combined grade point average of at least 2.50, and completing ENGL 110. Only courses graded C (2.0) or better may be transferred to offset degree requirements. Both the cumulative grade point average and the School of Science and Engineering grade point average must be at least 2.50 for graduation. Taking the Fundamentals of Engineering (FE) examination is required for the degree. This degree is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). Students must choose between the two departmental majors; they may not combine the two for a double major.

## Bachelor of Science in Mechanical Engineering Major in Mechanical Engineering

In order to earn the bachelor of science in mechanical engineering degree with a major in mechanical engineering, students must complete a minimum of 180 credits including at least 45 credits in the core curriculum. A cumulative 2.5 grade point average is required, in addition to a science and engineering grade point average of 2.5 , including the following:

## 1. Core Curriculum Requirements

ENGL 110 Freshman English .............................................................................. 5
PHIL 110 Introduction to Philosophy and Critical Thinking ............................... 5
Choose one of the following two courses: ...................................................................... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ................................................................ 5
PHIL 220 Philosophy of the Human Person ........................................................ 5
Social Science I (not economics) ........................................................................... 5
Social Science II satisfied by CEEGR 402
Theology and Religious Studies Phase II (200-299) .................................................. 5
Ethics (upper division) ............................................................................................ 5
Theology and Religious Studies Phase III (300-399) ............................................... 5
Interdisciplinary satisfied within major.
Senior Synthesis filled by MMEGR 487, 488, 489.
See detailed core curriculum information in this bulletin.

## II. Major Program Requirements

Sixty-seven credits in mechanical engineering, including:
MMEGR 105 Engineering Graphics and Design ...................................................... 3
MMEGR 181 Innovative Design .............................................................................. 2
MMEGR 210 Statics............................................................................................... 4
MMEGR 230 Dynamics ........................................................................................... 5
MMEGR 250 Materials Science .............................................................................. 5
MMEGR 304 Basics of Computer Aided Engineering .............................................. 4
MMEGR 321 Thermodynamics ............................................................................... 4
MMEGR 324 Heat Transfer ..................................................................................... 4
MMEGR 371 Machine Elements ............................................................................. 5
MMEGR 381 Engineering Methods .......................................................................... 4
MMEGR 424 Thermal Systems Lab ......................................................................... 2
MMEGR 435 Dynamic Systems ................................................................................. 5
MMEGR 487 Engineering Design I............................................................................ 3
MMEGR 488 Engineering Design II ....................................................................... 4
MMEGR 489 Engineering Design III........................................................................ 3
Engineering Electives (approved by department)..................................................... 10
III. Other Major Department Requirements
CEEGR 221 Strength of Materials I ..... 4
CEEGR 222 Strength of Materials Lab I ..... 2
CEEGR 331 Fluid Mechanics ..... 4
CEEGR 402 Engineering Economy ..... 3
CHEM 121 General Chemistry I ..... 4
CHEM 131 General Chemistry Lab I ..... 1
EEGR 315 Elements of Electrical Engineering ..... 5
MATH 134 Calculus and Analytical Geometry I ..... 5
MATH 135 Calculus and Analytical Geometry II ..... 5
MATH 136 Calculus and Analytical Geometry III ..... 5
MATH 232 Multivariable Calculus ..... 3
MATH 233 Linear Algebra ..... 3
MATH 234 Differential Equations ..... 4
PHYS 200 Mechanics ..... 5
PHYS 201 Electricity and Magnetism ..... 5
PHYS 202 Waves, Optics and Thermodynamics ..... 5
Science or Math Elective ..... 5
Please Note: 1. A minimum of 45 credits in core curriculum courses is required forgraduation. 2. The Fundamentals of Engineering (FE) examination is required for graduation.3. MATH 244 preferred for science/math elective; alternates include BIOL 165, CHEM 122-32;PHYS 204, 205 or 330.
Bachelor of Science in Mechanical Engineering Major in Mechanical Engineering with specialization in Manufacturing Engineering
In order to earn the bachelor of science in mechanical engineering degree with a specialization in manufacturing engineering, students must complete a minimum of 180 credits including at least 45 credits in the core curriculum. A cumulative 2.5 grade point average is required, in addition to a science and engineering grade point average of 2.5 , including the following:

1. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I (not economics) ..... 5
Social Science II satisfied by CEEGR 402
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary satisfied within major.Senior Synthesis filled by MMEGR 487, 488, 489.
See detailed core curriculum information in this bulletin.
II. Major Program Requirements
Sixty-four credits in mechanical engineering, including:
MMEGR 105 Engineering Graphics and Design ..... 3
MMEGR 181 Innovative Design ..... 2
MMEGR 210 Statics. ..... 4
MMEGR 230 Dynamics ..... 5
MMEGR 250 Materials Science ..... 5
MMEGR 304 Basics of Computer Aided Engineering ..... 4
MMEGR 321 Thermodynamics ..... 4
MMEGR 324 Heat Transfer ..... 4
MMEGR 342 Manufacturing Processes ..... 3
MMEGR 371 Machine Elements ..... 5
MMEGR 381 Engineering Methods ..... 4
MMEGR 435 Dynamic Systems ..... 5
MMEGR 443 Manufacturing Automation ..... 4
MMEGR 444 Computer Integrated Manufacturing (CIM) ..... 2
MMEGR 487 Engineering Design I. ..... 3
MMEGR 488 Engineering Design II ..... 4
MMEGR 489 Engineering Design III ..... 3
III. Other Major Program Requirements
CEEGR 221 Strength of Materials I ..... 4
CEEGR 331 Fluid Mechanics. ..... 4
CEEGR 402 Engineering Economy ..... 3
CHEM 121 General Chemistry I ..... 4
CHEM 131 General Chemistry Lab I .....  1
EEGR 315 Elements of Electrical Engineering ..... 5
MATH 134 Calculus and Analytical Geometry I ..... 5
MATH 135 Calculus and Analytical Geometry II ..... 5
MATH 136 Calculus and Analytical Geometry III. ..... 5
MATH 232 Multivariable Calculus ..... 3
MATH 233 Linear Algebra ..... 3
MATH 234 Differential Equations ..... 4
MATH 244 Probability \& Statistics ..... 5
OPER 360 Manufacturing and Service Operations ..... 5
PHYS 200 Mechanics ..... 5
PHYS 201 Electricity and Magnetism ..... 5
PHYS 202 Waves, Optics and Thermodynamics ..... 5
Please Note: 1. A minimum of 45 credits in core curriculum courses is required for graduation. 2. The Fundamentals of Engineering (FE) examination is required for graduation. 3. There is no room in the manufacturing engineering specialization for electives.

## Mechanical and Manufacturing Engineering Courses

Please Note: All courses are numbered under a system which relates the technical content of lectures and laboratory courses to the subfields of the mechanical engineering and manufacturing engineering professions. The left digit indicates the nominal year in which the course is scheduled. The middle digit denotes the technical topic area according to the following listing. The right digit specifies the course uniquely and indicates the sequence within a subject area.

| Left Digit | Middle Digit | Right Digit |
| :--- | :--- | :--- |
| 1 Freshman | 0 Computer Oriented | $0-9$ Course sequence number |
| 2 Sophomore | 1 Statics |  |
| 3 Junior | 2 Energy |  |
| 4 Senior | 3 Dynamics |  |
|  | 4 Manufacturing |  |
|  | 5 Materials | 6 Aerothermodynamics |
|  | 7 Machine Element Design |  |
|  | 8 System Design |  |
|  | Sample: |  | Sample:



MMEGR 230 means: sophomore class; dynamics; first course

## MMEGR 105 Engineering Graphics and Design

Technical sketching. Isometric, orthographic, auxiliary, and sectional views. Dimensioning. Introduction to computer-aided drafting (CAD) and solid modeling. Includes design project using CAD. Three two-hour sessions per week. Laboratory. (fall, winter, spring)

## MMEGR 181 Innovative Design

The design process, including performance prediction and prototype construction and testing. Includes a guided class project, team evaluation of an existing engineering design, and a major team design project. Final exam will consist of an oral presentation and performance demonstration of the team design. Two two-hour sessions per week. Laboratory. (fall, winter, spring)
MMEGR 210 Statics 4
Vector algebra. Equilibrium of forces and moments, distributed forces, hydrostatics, friction, virtual work; all applied to simple bodies. Four lectures per week. Prerequisites: MATH 135, PHYS 200. (fall, winter)
MMEGR 230 Dynamics ..... 5
Vectors applied to kinematics and kinetics. Particle, system of particles, and rigid bodiesrelated to translation, rotation, plane motion, relative motion, forces, impulse-momentum,work-energy. Design problem. Five lectures per week. Prerequisites: MMEGR 210, MATH136. (winter, spring)
MMEGR 250 Materials Science ..... 5
Atomic structure. Metallic bond. Structure of metals and non-metals. Equilibrium dia-grams. Time-dependent transformations. Relation of structure to properties. Elastic andplastic deformation. Four lectures, one three-hour laboratory per week. (spring, fall)
MMEGR 291 Special Topics ..... 1-5
MMEGR 292 Special Topics ..... 1-5
MMEGR 293 Special Topics ..... 1-5
MMEGR 296 Directed Study ..... 1-5
MMEGR 304 Basics of Computer-Aided Engineering ..... 4Introduction to microcomputer structure. Basics of interfacing microprocessors with thereal world. Applications: graphics, data acquisition, control, robotics. Design problem.Two lectures and one four-hour laboratory per week. Prerequisite: MMEGR 381. Pre- orcorequisite: EEGR 315. (spring)
MMEGR 321 Thermodynamics ..... 4Thermal properties of ideal and real gases, liquids, vapors and mixtures. Conservation ofenergy. Second law. Conversion of thermal energy to work. Power, efficiency, cycles,compressible gas flow. Four lectures per week. (winter, spring)
MMEGR 324 Heat Transfer4Heat transfer-conduction, convection and radiation. Conduction in one and two dimen-sions, steady state and transient. Forced and natural convection with phase change. Designproblem. Four lectures per week. Prerequisite: MMEGR 321. Pre- or corequisite: CEEGR331. (spring)
MMEGR 342 Manufacturing Processes ..... 3Overview of manufacturing processes including casting, forming, machining and welding;physics governing processes, the associated process parameters and their influences.Special emphasis is placed on plastics processing. Two lectures and one laboratory or fieldtrip per week. Prerequisite: MMEGR 250. (spring)
MMEGR 371 Machine Elements ..... 5Advanced strength of materials including combined loading, beams and columns, and anintroduction to the finite element method. Introduction to statistics and reliability. Materialfailure including failure theories and an introduction to fracture mechanics and fatigue.Design of connections. Theory and use of common hand and machine tools. Four lecturesand one three-hour laboratory per week. Prerequisite: CEEGR 221. Pre- or corequisite:MMEGR 250. (Formerly MMEGR 370.) (fall)
MMEGR 372 Machine Elements II ..... 4Continuation of MMEGR 371. Fasteners, welds, springs, bearings, gears, clutches andbrakes. Design problem. Four lectures per week. Prerequisite: MMEGR 371.


#### Abstract

MMEGR 381 Engineering Methods 4 Modern methods using computers to solve problems encountered in mechanical and civil engineering. Examples are stress analysis and beams (numerical integration, matrix methods, systems of simultaneous equations), stability of mechanical systems and columns (differential equations), and stress and heat transfer (finite difference models). Three lectures and one three-hour laboratory per week. Prerequisite: MMEGR 230 and MATH 234. (fall, winter)

MMEGR 391 Special Topics 1-5 MMEGR 392 Special Topics 1-5 MMEGR 393 Special Topics 1-5 MMEGR 396 Directed Study 1-5 MMEGR 401 Principles of Instrumentation 2 Review of the elements of instrumentation systems: sensors; cables; potentiometers; filters; and display devices. Further study of each system element to find sources of unwanted signals and/or noise. Study of methods to eliminate or minimize unwanted signals and noise. One lecture and one three-hour laboratory per week. Pre- or corequisite: MMEGR 304.


## MMEGR 421 Applied Thermodynamics

Thermodynamics applied to ideal and real cycles, internal and external combustion engines, fans, blowers, compressors, nozzles, refrigeration, air conditioning. Design problem. Four lectures per week. Prerequisite: MMEGR 321. (Formerly MMEGR 425)
MMEGR $424 \quad$ Thermal Systems Laboratory 2 Laboratory experiments in various thermal systems such as refrigeration system, air conditioning system, internal combustion engine, etc. Experimental verification of heat transfer principles. One lecture and one three-hour laboratory per week. Prerequisites: MMEGR 321. Pre- or corequisite: MMEGR 324. (fall)

## MMEGR 426 Heat/Ventilation/Refrigeration 4

Psychometrics; space heating and cooling loads; air conditioning; fans and ducts; heat exchangers; solar systems; refrigeration. Four lectures per week. Prerequisites: MMEGR 321, MMEGR 324.

## MMEGR 431 Vehicle Dynamics

Application of the principles of engineering mechanics to the dynamics of ground vehicles. Familiarization with methods to analyze, predict and design for vehicle dynamic performance. Acceleration and braking performance, aerodynamics and road loads, ride, directional response, rollover. Four lectures per week. Prerequisite: Mechanical Engineering candidacy.

## MMEGR 435 Dynamic Systems

Modeling of mechanical, thermal, hydraulic, pneumatic, and electrical linear and nonlinear systems. Introduction to computer modeling and simulation using existing symbolic computer programs. Laplace transforms, stability criteria, and frequency response. Four lectures and one three-hour laboratory per week. Prerequisite: EEGR 315 and MMEGR 381; Pre- or corequisite: MMEGR 324. (formerly MME 434 and MME 436) (fall)


#### Abstract

MMEGR 438 Control Systems 4 Feedback control system analysis. Proportional, integral and derivative control. Control system design, compensation. Root locus, Nyquist and Bode plots. Analog and digital simulation. Four lectures per week. Prerequisite: MMEGR 435.


## MMEGR 443 Manufacturing Automation 4

An overview of manufacturing automation and assembly including hard automation, flexible automation, NC machine, automated inspection systems, and programmable logic controllers. Applications of digital and analog controls to manufacturing systems. Four lectures per week. Prerequisites: MMEGR 304 and MMEGR 435. (winter)

## MMEGR 444 Computer Integrated Manufacturing (CIM)

Fundamental components of computer integrated manufacturing. Topics include networking, relational databases, integration of CAD/CAM and inventory control, shop floor control, and applications to concurrent engineering. Two lectures per week. Prerequisite: MMEGR 304. (fall)

## MMEGR 454 Fracture Mechanics 2

Modern fracture theory - stress intensity functions, including environmental effects and applications to fatigue. Two lectures per week. Prerequisite: MMEGR 371.

## MMEGR 461 Compressible Flow

 4One-dimensional gas dynamics. Flow in nozzles and diffusers, normal shocks, frictional flows, and flows with heat transfer and energy release. Design problem. Four lectures per week. Prerequisites: MMEGR 321, CEEGR 331.

## MMEGR 463 Gas Turbines 4

Basic gas dynamics, Brayton cycle, gas turbine engines, parametric and performance analysis, design principles of components. Design problem. Four lectures per week. Prerequisite: MMEGR 321.

## MMEGR 465 Turbomachinery

Design operation of turbines and compressors, principles of turbine and compressor types, off-design operation, pumps, cavitation, fans. Design problem. Four lectures per week. Prerequisite: MMEGR 321.

## MMEGR 471 Kinematics and Dynamics of Machinery

Analysis and synthesis of mechanisms based on combinations of linkages and cams. Considers geometry of motion, velocity and acceleration profiles, and associated forces. Uses manual analytical and graphical methods as well as more advanced computer methods. Four lectures per week. Prerequisite: Mechanical Engineering Candidacy.

MMEGR 487 Engineering Design I 3
MMEGR 488 Engineering Design II 4
MMEGR 489 Engineering Design III ..... 3Group design project focusing on the integrative aspects of engineering subject matter. Theproject should focus on: (1) philosophy of design, a creative approach, and a comprehen-sive design project; planning, organizing and leading an engineering project; exercisingjudgment and considering economic factors; and (2) integrated aspects of creative designand analysis; case studies; design of a novel device or system. Two one-hour lectures perweek in addition to individual team design time. The three courses must be taken as acontinuous sequence and fulfill the senior synthesis core requirement. Prerequisites:MMEGR 181 and department permission for 487 ; 487 for $488 ; 488$ for 489. ( 487 , fall; 488,winter; 489, spring)
MMEGR 491 Special Topics ..... 2-5
MMEGR 492 Special Topics ..... 2-5
MMEGR 493 Special Topics ..... 2-5
MMEGR 496 Independent Study ..... 1-5
MMEGR 497 Directed Reading ..... 1-5
MMEGR 498 Directed Research ..... 1-5

## Physics

Michael A. Morgan, PhD, Chair

## Objectives

The Physics Department offers two degree programs. For those who wish a career in physics, the bachelor of science in physics program takes the student from classical mechanics through quantum mechanics, including advanced laboratory courses emphasizing modern physics. The curriculum is designed to prepare students for advanced work in pure and applied physics or for graduate study. The bachelor of arts program is ideal for those who desire a solid background in physics but also want the flexibility to pursue other interests.

## Degrees Offered

Bachelor of Arts
Bachelor of Science in Physics

## Major Offered

Physics

## Minor Offered

Physics

## Bachelor of Arts <br> Major in Physics

In order to earn the bachelor of arts degree with a major in physics, students must complete a minimum of 180 credits with a cumulative and major/department grade point average of 2.0 , including the following:

## I. Core Curriculum Requirements

ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin.
II. Major Requirements
Forty-five credits in physics, including:
PHYS 200 Mechanics ..... 5
PHYS 201 Electricity and Magnetism ..... 5
PHYS 202 Waves, Optics, and Thermodynamics ..... 5
PHYS 204 Relativity ..... 2
PHYS 205 Introduction to Quantum Physics ..... 3
PHYS 310 Intermediate Mechanics I ..... 5
PHYS 330 Electromagnetic Field Theory ..... 5
PHYS Electives (not 100 level) ..... 15
III. Other Major Department Requirements
MATH 134 Calculus and Analytic Geometry I ..... 5
MATH 135 Calculus and Analytic Geometry II ..... 5
MATH 136 Calculus and Analytic Geometry III ..... 5
MATH 232 Multivariable Calculus ..... 3
MATH 233 Linear Algebra ..... 3
MATH 234 Differential Equations ..... 4
Related science electives (approved by department) ..... 15
Please Note: No 100 -level courses may be counted toward the major.
Bachelor of Science in Physics
In order to earn the bachelor of science in physics degree, students must complete aminimum of 180 credits with a cumulative and major/department grade point average of2.0 , including the following:
I. Core Curriculum Requirements
ENGL 110 Freshman English ..... 5
PHIL 110 Introduction to Philosophy and Critical Thinking ..... 5
Choose one of the following two courses: ..... 5
HIST 120 Origins of Western Civilization
HIST 121 Studies in Modern Civilization
ENGL 120 Masterpieces of Literature ..... 5
FINR 120 or approved fine arts alternate ..... 5
PHIL 220 Philosophy of the Human Person ..... 5
Social Science I ..... 5
Social Science II (different discipline from Social Science I) ..... 5
Theology and Religious Studies Phase II (200-299) ..... 5
Ethics (upper division) ..... 5
Theology and Religious Studies Phase III (300-399) ..... 5
Interdisciplinary ..... 3 to 5
Senior Synthesis ..... 3
See detailed core curriculum information in this bulletin.
II. Major Requirements
Sixty credits in physics, including:
PHYS 200 Mechanics ..... 5
PHYS 201 Electricity and Magnetism ..... 5
PHYS 202 Waves, Optics, and Thermodynamics ..... 5
PHYS 204 Relativity ..... 2
PHYS 205 Introduction to Quantum Physics ..... 3
PHYS 310 Intermediate Mechanics I ..... 5
PHYS 311 Intermediate Mechanics II ..... 3
PHYS 330 Electromagnetic Field Theory ..... 5
PHYS 331 Electromagnetic Waves ..... 3
PHYS 484 Thermodynamics and Statistical Physics ..... 5
PHYS 485 Quantum Mechanics ..... 5
PHYS Electives (not 100 level) ..... 14
III. Other Major Department Requirements
MATH 134 Calculus and Analytic Geometry I ..... 5
MATH 135 Calculus and Analytic Geometry II ..... 5
MATH 136 Calculus and Analytic Geometry III ..... 5
MATH 232 Multivariable Calculus ..... 3
MATH 233 Linear Algebra ..... 3
MATH 234 Differential Equations ..... 4
Related Science Electives (approved by department) ..... 10
Please Note: No 100 -level courses may be counted toward the major.
Minor in PhysicsIn order to earn a minor in physics, students must complete 30 credits in physics,including:
PHYS 200 Mechanics ..... 5
PHYS 201 Electricity and Magnetism ..... 5
PHYS 202 Waves, Optics, and Thermodynamics. ..... 5
PHYS 205 Introduction to Quantum Physics ..... 3
PHYS Electives (200-level and above) ..... 12
Please Note: No 100 -level courses may be counted toward the minor. See policy for minors on p. 43.

## Teacher Education

The teacher preparation program is a graduate-level program only. Students interested in teaching should contact the Master in Teaching program (206) 296-5759 to be assigned an adviser to ensure that they meet state requirements for an academic program as well as the specific requirements for MIT admission.

## Physics Courses

Please Note: PHYS 101, PHYS 105, PHYS 106, PHYS 107, PHYS 120, PHYS 200, PHYS 201, and PHYS 202 have four lectures and one laboratory per week.
PHYS 101 Astronomy: The Solar System
Description of the motions of celestial objects as seen from earth. Explanation of the motions from the early Greeks through the moderns. Survey of the physical properties and origins of the solar system, including the latest findings of space probes. Prerequisite: core mathematics requirement. (fall and spring)

PHYS 105 Mechanics and Sound 5
Non-calculus survey of classical mechanics. Statics, kinematics, and dynamics of particles and systems; fluids; harmonic motion, waves, and sound. Prerequisites: MATH 120, MATH 121 or equivalent. (fall)

PHYS 106 Electricity, Magnetism, and Thermodynamics 5
Survey of electromagnetism. Electrostatics, magneto-statics, electromagnetic fields, dc and ac circuits, introduction to thermodynamics. Prerequisite: PHYS 105. (winter)
PHYS $107 \quad 5$ Optics, including reflection refraction, interference, diffraction and polarization. Introduction to atomic and nuclear physics. Prerequisite: PHYS 106. (spring)
PHYS 120 Science as a Human Process 5
How science is actually done by real people; history of physics; concepts of relativity and quantum physics and their effect on society; recent controversies in earth science, such as global warming, ozone depletion, or what caused the death of the dinosaurs. Includes lab and satisfies the core phase I science requirement. Prerequisite: core mathematics.
PHYS 200 Mechanics 5
Vector mathematics; kinematics; conservation of momentum and collisions; relative motion and reference frames; force and Newton's laws; work, energy, and power; rotational dynamics; rigid body motion, gravitation. Prerequisites or corequisite: MATH 135. (winter, spring)

PHYS 201 Electricity and Magnetism 5
Electric charge, forces, field, flux; Gauss' law; electric potential; conductors, dielectrics, capacitance; current and resistance; DC circuits; magnetic forces, fields; inductance. Prerequisites: PHYS 200, MATH 135. (fall, spring)
PHYS 202 Waves, Optics, and Thermodynamics 5
Harmonic motion; mechanical, and electromagnetic waves; reflection, refraction, dispersion, interference, diffraction and polarization. Temperature, ideal gases, kinetic theory, second law of thermodynamics. Prerequisites: PHYS 201, MATH 136. (fall, winter)

## PHYS 204 Relativity

2
An introduction to special relativity. The Lorentz transformation; relativistic kinematics and dynamics. Prerequisite: PHYS 202. (spring)
PHYS 205 Introduction to Quantum Physics 3
Evidence for the quantization of light, matter, and energy; the nuclear atom; wave-particle duality; the uncertainty principle; the Schrodinger equation and its applications. Prerequisites: PHYS 202; MATH 232. (spring)

| PHYS 291 | Special Topics | 1 to 5 |
| :--- | :--- | :--- |
| PHYS 292 | Special Topics | 1 to 5 |
| PHYS 293 | Special Topics | 1 to 5 |
| PHYS 296 | Directed Study | 1 to 5 |

# PHYS 310 Intermediate Mechanics I 5 <br> Vector calculus; single-particle Newtonian mechanics; linear oscillations; nonlinear oscillations and chaos; gravitation; calculus of variations; Lagrangian and Hamiltonian dynamics. Prerequisites: PHYS 200, MATH 234. (winter) 

## PHYS 311 Intermediate Mechanics II <br> 3

Central force motion; systems of particles; noninertial reference frames; dynamics of rigid bodies; coupled oscillations. Prerequisite: PHYS 310 (spring)

## PHYS 330 Electromagnetic Field Theory 5

 Static electric and magnetic fields in vacuum and linear isotropic media; time-varying fields and Maxwell's equations; the wave equation and boundary conditions; propogation of electromagnetic waves in non-conducting media. Prerequisites: PHYS 201, MATH 234. (fall)
## PHYS 331 Electromagnetic Waves

Further development of the theory of the propogation of electromagnetic waves; radiation of electromagnetic waves by moving charges; solutions of Laplace's and Poisson's equations in curvilinear coordinates. Prerequisite: PHYS 330. (spring)

## PHYS 340 Nonlinear Dynamical Systems and Chaos 4

Coupled linear and nonlinear difference equations; coupled linear and nonlinear ordinary differential equations; fixed points; equilibrium points; stability; bifurcations; limit cycles; logistic equation; Feigenbaum scaling; fractals; Hausdorff dimension; dissipative and Hamiltonian systems; Liapunov's method; strange attractors; nonlinear oscillations; perturbation theory; Lorenz equations; chaos; predictability; computer programming and graphics. Prerequisites: PHYS 202, MATH 234.

## PHYS $350 \quad$ Physics of Diagnostic Ultrasound 3

The physics of pulsed ultrasound, including its production and detection by transducers, characteristics of pulses and sound beams, interaction of ultrasound with tissue including attenuation, impedence, reflection, refraction, scattering, ranging, and Doppler effect; introduction to ultrasonic instrumentation. Prerequisites: PHYS 106 or equivalent; MATH 131 or 134; enrollment in diagnostic ultrasound or permission. (fall)

## PHYS $\mathbf{3 6 3}$ Infroduction to Geophysics

4
Earth formation; plate tectonics; geomagnetism; continuum mechanics; earthquakes and seismology; volcanoes; physical properties of the deep earth; high-pressure geophysics. Prerequisites: PHYS 202, MATH 234

PHYS $370 \quad$ Modern Physical Measurement
Historical modern physics experimental lab course with emphasis on state-of-the-art data acquisition techniques using computers. Material surfaces using scanning tunneling microscope (STM); black-body radiation and spectrophotometry; atomic physics. Prerequisites: PHYS 205, MATH 234

## PHYS 391

Special Topics
1 to 5
PHYS 392

PHYS 430 Modern Optics for Physicists and Engineers 4
Introduction to modern optics consisting of ray optics; scalar wave optics; diffraction; interferometry; vector wave optics and polarization; Gaussian beam optics; Fourier optics, including image processing, spatial filtering, and holography; optical waveguides and fibers; optical resonators; laser amplifiers and systems; semiconductor lasers and detectors; optical switching and computing. Optional labs in holography and fiber optics. Prerequisites: PHYS 205, PHYS 330

PHYS 480 Interdisciplinary Core Courses

3 to 5

Title and content change each term.

## PHYS 483 Solid-State Physics 4

Symmetry; crystal structure; $x$-ray and neutron diffraction; types of solids and bonding; vibrations in solids-phonons; electronic band structure; metals and semiconductors; pn junctions. Prerequisites: PHYS 205, MATH 234 (formerly PH 488)
PHYS 484 Thermodynamics and Statistical Physics 5
Temperature; work; heat; internal energy; entropy; thermodynamic equilibrium; first and second laws; ideal gases; heat engines and refrigerators; reversible processes; thermal properties of matter and radiation; phase transitions; partition function; critical phenomena. Prerequisites: PHYS 205, MATH 234 (fall)
PHYS 485 Quantum Mechanics 5
Wave-particle duality, the state function, the Schrodinger equation, one-dimensional problems, the operator formalism, matrices, central forces, angular momentum, spin, identical particles. Prerequisites: PHYS 205, MATH 234. (fall)

## PHYS $486 \quad$ Particle and Nuclear Physics <br> 5

Historical introduction to the elementary particles; symmetries and conservation laws; quantum electrodynamics; the weak interaction; introduction to quantum chromodynamics; properties of nuclei; nuclear radiations and their detection; nuclear structure and nuclear models. Prerequisites: PHYS 330, PHYS 485 (formerly PH 490)

## PHYS 487 Senior Synthesis

 3Capstone course integrating physics and the humanities through investigation of one or more themes. Readings, classroom discussion, essays, and student presentations. Satisfies core senior synthesis requirement. Does not count for physics elective credit. Prerequisite: Permission of chair.
PHYS 491 Special Topics 1 to 5
PHYS 492 Special Topics 1 to 5
PHYS 493 Special Topics 1 to 5
PHYS 496 Independent Study 1 to 5
PHYS 497 Directed Reading 1 to 5
PHYS 498 Directed Research 1 to 5
PHYS 499 Undergraduate Research $\mathbf{1 - 6}$
Literature search and laboratory or computer investigation of a research problem in physics under the supervision of a faculty member. Preparation of a written report. Prerequisite: permission of department chair.

## Premedical and Predental

Margaret L. Hudson, PhD, Adviser

If you are interested in careers in medicine, dentistry, veterinary medicine, optometry, or biomedical research, please meet with Dr. Hudson early during your first year at Seattle University, and after that on a regular basis, so that we can work together toward your professional goals. It is important to meet regularly with your academic adviser in your major department. You will probably want to get involved in the PreHealth Club, which sponsors speakers, outings, and projects of interest to students preparing for careers in the health professions.
Most of Seattle University's premedical, predental, preveterinary, and preoptometry students major in biology, chemistry, biochemistry, physics, general science, or psychology, but you may choose any academic major at Seattle University as long as you complete at least the minimum science course work listed below. Within the framework of any one of these undergraduate degree programs, students obtain strong backgrounds in the liberal arts through the core curriculum.
Most medical, dental, and veterinary schools require the following undergraduate science sequences: CHEM 121, 122, 123, 131, 132, 133, 335, 336, 337, 345, 346, 347; BIOL $165,166,167$; PHYS $105,106,107$. Schools of optometry generally require less organic chemistry. Professional schools also recommend or require calculus, cell physiology, and biochemistry. Check the bulletins of the professional schools of interest to you to learn about specific requirements. Most professional schools require, as a part of the application process, nationally standardized exams which draw on your college science background. These exams are taken a year to a year and a half in advance of the time you expect to enroll in the professional school, so planning the timing of required science courses is important.
Competition for entrance into medical, dental, veterinary, and optometry schools is strong. The schools look for evidence of intellectual ability, understanding of the profession based on your own direct experience, a sense of service, and personal qualities appropriate to the profession. Since academic coursework and professional demands are high, it is important that you regularly assess whether your original goal is still right for you.

The application process for entering graduate programs or professional school should start at least a year in advance of enrollment and your adviser is available to assist you. The standardized tests such as the Medical College Admissions Test (MCAT), and Optometry Admission Test (OAT) are administered locally twice a year. The Graduate Record Exam (GRE) and the Dental Admission Test (DAT) are administered more frequently. You will be asked to provide transcripts and individual letters of recommendation from people who are able to speak directly about your strengths.

The Premedical/Predental Advisory Committee is available to conduct an interview with each applicant and subsequently will write a supportive letter of evaluation for each qualified applicant.

## Special Academic Programs

## Culture and Language Bridge Program

Eli Hinkel, Ph.D., Director

## Objectives

The Culture and Language Bridge Program is designed to prepare non-native speakers of English for a productive academic career at Seattle University. The primary goal of the program is to provide admitted Seattle University students with the background in the American academic culture and language skills essential for success in their studies. The courses offered in the program are highly advanced, with a specific focus on universitylevel reading, writing, listening, and speaking skills.

## Description of Courses

During their first quarter at Seattle University, students at the beginning of their academic careers are usually expected to take courses in English Syntax for Writing (CLBR 086), Academic Reading and Writing (CLBR 087), Classroom Communication (CLBR 088), and one additional class based on the recommendation of their adviser. In their second quarter, first-year students are usually required to take Basic Writing (ENGL 101) and two additional courses.

Students who transfer to Seattle University during their subsequent years of study, as well as graduate students, are expected to take courses that advance their strategic reading and writing (CLBR 090), and academic speaking skills (CLBR 091) essential for success in their disciplines. In addition, the coursework for transfer and graduate students concentrates on the American academic culture and the specific preparation for requirements at Seattle University. Undergraduate business majors and graduate students enrolled in the Albers School of Business attend a supplemental course in conjunction with a five-credit-hour class, Management 280. These students are required to take Advanced Academic Discourse (CLBR 091) during their first quarter at Seattle University and have the option of taking Advanced Academic Writing (CLBR 090) in the same or the subsequent quarter.

## The Program Schedule

The program is offered during the fall, winter, and spring quarters. Courses for undergraduate students are not offered in the summer, and classes for graduate students are taught when there is sufficient need.

## Admission Requirements

All non-native speakers of English whose TOEFL (Test of English as a Foreign Language) score is between 520 and 577 ( 190 and 233 computer-based score) are required to take the Placement Essay Test upon their arrival at Seattle University. Students are supported by the Culture and Language Bridge Program when their writing skills as demonstrated on the Placement Essay Test, combined with their TOEFL scores at admission, indicate that their academic success at Seattle University requires it.

## Placement Essay Test

The purpose of the placement essay test is to allow students an opportunity to demonstrate the quality of their writing. Placement essay tests are evaluated by the university faculty and the staff of the Culture and Language Bridge Program based on such considerations as language fluency, rhetorical development, logical organization, and sentence structure. Students whose writing skills require additional improvement need to take courses in the Culture and Language Bridge Program. If students' writing in English appears to be in need of substantial work, they may be required to enroll in Academic Reading and Writing (CLBR 087) and the CLBR section of Basic Writing (English 101). Moderate writing skills, as determined by the essay evaluators, require students to take the Basic Writing course (English 101 CLBR section). On the other hand, students whose writing abilities are deemed sufficient for success in their academic studies do not need to enroll in the program. Students whose TOEFL scores are 580 or above are not expected to take the Placement Essay Test or enroll in the Culture and Language Bridge Program. However, they have the option of taking classes in the program if they choose to.

## Program Requirements

In the Culture and Language Bridge Program, a student's work is evaluated with the goal of preparing non-native speakers for success in their studies at Seattle University. In keeping with this objective, the grading of English 101 follows the University grading system. All other CLBR courses carry an indication of "Language Prepared" (LP) for further university work or "Language Unprepared" (LU) designation. Successful completion of English 101 allows undergraduate students to earn five elective credits toward their graduation. Credits for all other CLBR courses are not applicable toward graduation requirements. However, CLBR courses and their evaluative designations are shown on students' transcripts.

## Culture and Language Bridge Program Courses

## Courses for students at the beginning of their academic careers

## CLBR 086 English Syntax for Writing 2

The class meets twice a week and concentrates on syntactic structures, such as sentence constructions and phrase-level grammar, essential in the production of English academic writing. The course is specifically geared toward lexical and grammatical regularities in English syntax that can facilitate writing clarity and cohesion. Grading scale: LP/LU.

## CLBR 087 Academic Reading and Writing

The class meets daily and focuses on the interaction between reading, writing, and critical thinking. Paraphrasing, summary writing, library research, and the writing process as it pertains to American academic writing, as well as effective reading are examined. Issues of sentence structure and style are also addressed. Grading scale: LP/LU.

## CLBR 088 Classroom Communication 3

The class meets three times a week and concentrates on the interaction of culture and language in the classroom. Informal and formal speech varieties, lecture comprehension, classroom participation, intelligibility, and oral presentations are examined. Grading scale: LP/LU.

## Courses for Transfer and Graduate Students

CLBR $090 \quad$ Advanced Academic Writing
3
The class meets three times a week and presents various concepts fundamental in academic writing in English (reasoned and objective argumentation, information synthesis, writing from sources, and the essential elements of the essay structure). Paraphrasing and vocabulary development represent ongoing supplementary course goals. Grading scale: LP/LU. (formerly Advanced Language and Communication)
CLBR 091 Advanced Academic Discourse 3 Focuses on American cultural values and assumptions as an intrinsic part of the discourse in American academic settings. Provides an avenue for improving students' global speaking and listening skills, discourse-level construction of presentations, as well as academic discussion and participatory skills. Grading scale: LP/LU.
CLBR 093 Supplemental CLBR 0
Required for business majors and graduate students in the Albers School of Business. This student-centered workshop includes lecture and discussion in support of an academic course (Management 280). Mandatory CR/F grading with minimum achievement level equal to LP/LU.

# Early Success Program 

Lisa Fraser, Director

## Objectives

The Early Success Program is designed for freshmen who do not meet standard admission requirements, but show academic promise. The program prepares students for the academic rigor of Seattle University by strengthening their academic skills in preparation for university admission. As participants in the program, students establish individual relationships with Seattle University faculty, staff, and students; this support system helps ESP students as they progress through new learning experiences in the university.

## Admission Requirements

Student applications which do not meet the standard admission requirements of the university are reviewed by the Early Success Program Office. Students who are then given the option to apply for ESP go through a rigorous application process. It includes:

- a supplemental application
- an essay on an assigned topic
- submission of a recent writing sample
- a telephone interview with the ESP Director

Final admission decisions are based on the student's ability and motivation as demonstrated by their entire application. Students are typically notified of their admission to ESP within two weeks of completing the ESP application process.

## Program Requirements

Students must successfully complete both the summer and fall quarter portions of the Early Success Program by maintaining a minimum 2.0 grade point average in each of their classes.

## Early Success Program Sessions

Session I: Summer Intersession: Student enroll in two university courses: English 101 ( 5 credits) and Freshman Seminar (non-credit). Designed to help new freshmen determine what is expected of college-level students, the courses focus on learning to read and write critically. Students learn to critique their own writing to make it competent and forceful while instructors function as learning coaches. Classes are interactive and discussion oriented. Each student develops a work plan for fall quarter based on particular strengths and learning style. Off-campus trips, computer projects, tutoring sessions, and time for study are also included in Session I. Students must live on campus during this session.

Session II: Fall Quarter: In consultation with the director, ESP students choose from the following two options:

Option 1: Students may take 15 credits (English 110 plus two other core courses) during the fall quarter. By the end of the term these students will have accumulated 20 credits total, including summer credit.
Option 2: Students may take 10 credits (English 110 plus one other core course) during fall quarter. Including the five credits they earned in the summer session, these students will have accumulated 15 credits (a standard freshman course load) by the end of fall term.
All ESP students participate in an academic support system which features tutoring, peer support groups, study sessions, social functions, mentoring, and career counseling.

## The Institute on Character Development

The Institute on Character Development is dedicated to preparing Seattle University students to help middle and high school students through times of confusion, uncertainty and growth. SU students work with youth in local community and church organizations to help develop their views of purpose in life, relationships, dealing with suffering, and character development. They do this by organizing retreats, giving special presentations in class rooms, and being present in community based and recreational settings. Students are prepared for these internships in teaching and working with youth by a special ethics course (Ethics and Character Development) which fulfills the core ethics requirement. Emphasis is given to student ownership, building community around shared ideals, and serving the community through presence, teaching , spirit, and friendship. Interested students should contact the student coordinators at 296-5463.

## Graduate Programs

Graduate studies directed toward the master's degree were first offered at Seattle University in 1910 in a division of its College of Arts and Sciences. As the demand for specialization increased, additional graduate programs were developed, and today graduate students account for 34 percent of total university enrollment. Graduate opportunities were expanded with the first doctoral program in 1976, the educational specialist degree in 1980, and the Institute for Theological Studies in 1985 (now the School of Theology and Ministry). New graduate degree programs have been added nearly every year since, as the university strives to meet the changing needs of working professionals. The university added the School of Law in 1994.

## Graduate Degrees Offered

See the Graduate Bulletin of Information for further details.

## College of Arts and Sciences

Master of Arts in Psychology
Institute of Public Service
Master of Public Administration
Executive Master of Not-For-Profit Leadership

## Albers School of Business and <br> Economics

Master of Arts in Applied Economics
Master of Business Administration
Master of International Business
Master of Professional Accounting
Master of Science in Finance
Post-Master's Certificates

## School of Education

Master of Arts in Education
Master of Education
These degrees may be earned in the following programs: adult education and training, counseling and school psychology, curriculum and instruction, education administration, student development administration, and teaching English to speakers of other languages.
Master in Teaching
Educational Specialist
This degree may be earned in educational administration or school psychology.
Doctor of Education
Post-Master's Certificates

## School of Nursing <br> Master of Science in Nursing

## School of Science and Engineering

Master of Software Engineering

## School of Theology and Ministry

Master of Arts in Pastoral Studies
Master of Arts in Transforming
Spirituality
Master of Divinity
Post-Master's Certificates

## School of Law

Juris Doctor (see the Law Bulletin for more information)
Joint Degrees with Albers School of Business and Economics

JD/MAE
JD/MBA
JD/MIB
JD/MSF

## Information

For admission, program requirements, and information on specializations, see the Graduate Bulletin of Information or contact the Admissions Office, Seattle University, 900 Broadway, Seattle, WA 98122-4340, telephone: (206) 296-5900; fax: (206) 296-5656; Internet: www.seattleu.edu.

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## Mark Shaw, MS

Coordinator
Wellness and Prevention Center
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Campus Life

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Director
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Director
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## Faculty

The year following faculty names indicates initial full-time appointment to the university faculty. Second date denotes year of terminal degree.
Mara Beth Adelman, PhD (1994)
Associate Professor of Communication and Journalism
BA, University of California, Los Angeles; MA, PhD, 1986, California State University, San Diego
Josef C. Afanador, EdD (1975)
Associate Professor of Counseling Education
BA, Butler University; MLSC, Purdue University; EdD, 1971, University of Arizona

## Janet Ainsworth, JD (1988)

## Professor of Law

BA, Brandeis University; MA, Yale University; JD, 1980, Harvard Law School

## Mary A. Alberg, PhD (1979)

Professor of Physics
BA, Wellesley College; MLSC, PhD, 1974, University of Washington

## Jeffrey Anderson, PhD (1991)

Associate Professor of Education
BA, University of Minnesota; MA, College of St. Thomas; PhD, 1990, University of Denver

## Kathryn Anderson, PhD (1992)

Associate Professor of Nursing
BSN, University of Virginia; MN, University of Washington; PhD, 1993, Oregon
Health Sciences University

## Phyllis Anderson, PhD (1998)

Assistant Professor
Director of the Institute for Ecumenical Theological Studies
BA, Sacramento State College; MS, Wartburg Theological Seminary; PhD, Aquinas Institute of Theology, 1984.

## Al Ansari, PhD (1985)

Associate Professor of Business, Management Information Systems
BS, Tehran College of Insurance; MBA, University of Detroit; MA, PhD, 1984,
University of Nebraska, Lincoln
Constance G. Anthony, PhD (1988)
Associate Professor of Political Science
BA, University of California, Santa Cruz; MA, University of California, Berkeley; PhD, 1982, University of California, Berkeley
David Arnesen, JD (1989)
Program Director, International Business Program
Associate Professor of Business/Business Law
BA, University of Washington; JD, University of Puget Sound School of Law

## Daisy E. Arredondo (1998)

Associate Professor
BA, MA, PhD, 1983, University of Washington
Gary L. Atkins, MA (1978)
Chair, Communication Department
Associate Professor of Journalism
AB, Loyola University; MA, 1972, Stanford University

## Vidya Awashti, PhD (1996)

Associate Professor of Accounting
BS, Meerut University, 1994; MA, Meerut University, 1976; MBA, California State University, Fresno, 1984; PhD, University of Washington, 1988
Lorraine K. Bannai, JD (1996)
Legal Writing Instructor
BA, University of California, Santa Barbara, 1976; JD, University of San Francisco 1979
Sandra L. Barker, PhD (1985)
Chair, School of Education Division of Teaching and Learning
Associate Professor of Education
BA, University of Oregon; MAT, University of Portland; PhD, 1983, University of Oregon
Karen A. Barta, PhD (1983)
Professor of Theology and Religious Studies
BS, Marian College of Fond du Lac; MA, Marquette University; PhD, 1979, Marquette University
John C. Bean, PhD (1986)
Professor of English, Director of Writing
BA, Stanford University; PhD, 1972, University of Washington
Kathleen Beaudoin (1998)
Assistant Professor of Education
BA, MS, 1990, Central Washington University; PhD (candidate), University of British Columbia

## Marilyn Berger, JD (1978)

Professor of Law
BS, Cornell University; JD, 1970, University of California, Berkeley
Andrew G. Bjelland, PhD (1982)
Associate Professor of Philosophy
AB, Immaculate Conception Seminary; PhD, 1970, St. Louis University
David Boerner, LLB (1981)
Associate Professor of Law
BS, University of Illinois; LLB, 1963, University of Illinois School of Law

## James Bond, SJD (1986)

Dean, School of Law
Professor of Law
AB, Wabash College; JD, Harvard University; LLM, SJD, 1972, University of Virginia
David A. Boness, PhD (1990)
Associate Professor of Physics
BA, Yale University; MLSC, PhD, 1991, University of Washington
Philip L. Boroughs, PhD (1992)
Assistant Professor in the School of Theology and Ministry
BA, Gonzaga University; MDiv, Jesuit School of Theology, Berkeley

[^5]Sandra Fortune Brandt, MA (1994)
Reference Librarian
BA, University of Iowa; MA, 1980, University of Missouri, Columbia
Melinda Branscomb, JD (1989)
Associate Professor of Law
BA, Vanderbilt University; JD, 1980, University of Tennessee School of Law
Stephanie Bravmann, PhD (1992)
Associate Professor of Education
AB, Indiana University; PhD, 1986, University of Washington

## William M. Bricken, PhD (1996)

Assistant Professor of Computer Science/Software Engineering BA, University of California, Los Angeles, 1967; Dip.Ed, Monash Teachers College, 1972; MS, Stanford University, 1984; PhD, Stanford University, 1987

## Lisa Brodoff

Assistant Clinical Professor
B.A., 1977, University of Vermont; J.D., 1980, Hofstra University.

Peter A. Brous, PhD (1992)
Associate Professor of Finance
BS, University of Connecticut; PhD, 1989, University of Oregon
Karen A. Brown, PhD (1983)
Professor of Business, Program Director, Production Operations Management BS, MBA, PhD, 1983, University of Washington

David Brubaker, PhD (1980)
Chair of Biology
Associate Professor of Biology
BS, University of Redlands; MLSC and PhD, 1972, University of Michigan
Maria Bullon-Fernandez, PhD (1995)
Assistant Professor of English
BA, Universidad de Sevilla; PhD, 1995, Cornell University
Chauncey A. Burke, PhD (1978)
Assistant Professor of Business/Marketing
BSBA, Mt. St. Mary's College; MBA, PhD, 1987, University of Washington
J. Patrick Burke, PhD (1967)

Professor of Philosophy
BA, Gonzaga University; MA, St. Louis University; PhD, 1978, University of Louvain
Daniel E. Burnstein, PhD (1995)
Assistant Professor of History
BA, University of Texas/Austin; MSW, Tulane University; PhD, 1992, Rutgers
University
Robert E. Callahan, PhD (1977)
Program Director, Business/Management
Associate Professor of Business
BS, MBA, Drexel University; PhD, 1977, Case Western Reserve University
Sharon Callahan, Assistant Professor (1997)
School of Theology \& Ministry
BFA, 1979, Fort Wright College; MA, 1974, Ball State University; MA, 1990, Regis College; EdD, 1996, Seattle University

## Maria Carl, PhD (1996)

Assistant Professor of Philosophy
BA, 1975, St. Mary's College; PhD, 1989, Marquette University
Emmett H. Carroll, S.J., DA (1973)
Associate Professor of English
BA, Gonzaga University; STL, Gregorian University; MA Rutgers University; DA, 1980, Carnegie-Mellon University

Janine M. Catalano, MSN, RN, CS, CEN, FNP-C (1998)
Assistant Professor of Nursing
BSN, 1986, Louisiana State University Medical Center; MSN, 1994, The University of Texas Health Science Center-Houston; Certificate, FNP, 1995, University of Texas Medical Branch

Gary L. Chamberlain, PhD (1979)
Professor of Theology and Religious Studies
BA, PhL, St Louis University; MA, University of Chicago; PhD, 1973, Graduate Theological Union

Stephen T. Chan, PhD (1996)
Assistant Professor of Theology and Religious Studies
BD, Chinese University of Hong Kong; MA University of Chicago; PhD Candidate, 1998, University of Chicago
John P. Chattin-McNichols, PhD (1979)
Associate Professor of Education
AB, University of California at Los Angeles; PhD, 1979, Stanford University
Xusheng Chen, PhD (1988)
Associate Professor of Electrical Engineering
BSEE, Institute of Power Engineering, Shanghai; MSEE, Jiao Tong University; MSEE, Louisiana State University; PhD, 1987, Washington State University
Kristin Cheney, JD (1994)
Associate Law Librarian
BS, Northern Michigan University; MLS, University of Washington; JD, 1984,
University of Puget Sound
Eric Chiapinelli, JD (1985)
Professor of Law
BA, Claremont Men's College; JD, 1978, Columbia University School of Law
Percy H. Chien, PhD, (1976)
Associate Professor of Civil Engineering
BSCE, National Taiwan University; MSCE, University of Houston; PhD, 1972, Clemson University

Mark A. Chinen, JD (1996)
Assistant Professor of Law
BA, Pomona College, 1981; M. Div., Yale Divinity School, 1984; JD, Harvard Law School, 1988

Margaret Chon (1998)
Professor of Law
B.A.,1979, Cornell University; J.D., M.H.S.A., 1981, University of Michigan.

Terry Cicero, MSN (1993)
Instructor of Nursing
BSN, Eastern Washington University; MSN, 1982, University of Washington
Annette Clark, MD, JD (1989)
Associate Dean Academic Affairs, School of Law
Associate Professor of Law
BS, Washington State University; MD, University of Washington School of Medicine;
JD, 1989, University of Puget Sound School of Law
Carol Wolfe Clay, MFA (1987)
Chair, Department of Fine Arts
Associate Professor of Drama
BA, California State University; MFA, 1985, University of California, Davis
Janet M. Claypool, MN (1966)
Associate Dean, School of Nursing
Professor of Nursing
BSN, MN, 1960, University of Washington
Gerald L. Cobb, S.J., PhD (1988)
Associate Professor of English
BA, Gonzaga University; MA, University of Washington; STM, MDiv, Jesuit School of Theology at Berkeley; PhD, 1988, University of Washington
John N. Collins, PhD (1992)
Director and Professor, Institute of Public Service
BA, University of Washington; MA, PhD, 1967, Northwestern University
Ananda K. Cousins, PhD (1993)
Associate Professor of Mechanical Engineering
BA, Wesleyan University; MLSC, PhD, 1986, Columbia University
John Culbertson, DBA (1989)
Instructor of Management
SB, University of Wisconsin; MBA, University of Maryland; DBA, 1965, Harvard University
Sharon Cumberland, PhD (1994)
Assistant Professor of English
BA, Coe College; MA, Drake University; PhD, 1994, City University of New York
Theresa A. (Terry) Cullen, JD (1997)
Law Librarian
BS, University of Texas, Austin, 1985; JD, University of Texas School of Law, Austin, 1993; MLIS, University of Texas of Texas, Austin, 1995

## Richard Cunningham (1997)

Assistant Professor, School of Theology \& Ministry
BA, Northwest Christian College; MA, Religious Education, 1968, Pacific School of Religion; MA, Divinity, Pacific School of Religion; PhD, Doctor of Ministry, 1981, Drew University Thehological School

## Patricia D. Daniels, PhD (1986)

Associate Dean, School of Science and Engineering
Professor of Electrical Engineering
BS, PhD, 1974, University of California, Berkeley. Registered
Professional Engineer

Vinay T. Datar, PhD (1994)
Assistant Professor of Finance and Economics
BT, Indian Institute of Technology; PhD, 1994, University of Florida
John Davis, PhD (1998)
Assistant Professor of Psychology
B.S., 1989, Texas A\&M University; PhD, 1998, University of Washington

Verelle M. Davis, MLSC (1972)
Assistant Professor of Nursing
BS, University of Washington; MLSC, 1970, Catholic University
Ann N. Dawson, MLSC (1987)
Instructor of Accounting
BUS, University of Albuquerque; MLSC, 1989, Golden Gate University
C. Frederick DeKay, PhD (1980)

Associate Dean, Albers School of Business and Economics
Associate Professor of Economics
BA, University of Washington; PhD, 1979, Johns Hopkins University
Sidney DeLong, JD (1985)
Associate Professor of Law
BA, Vanderbilt University; JD, 1974, Yale Law School
Robert J. Deltete, PhD (1978)
Associate Professor of Philosophy
BA, Seattle University; MA, PhD, 1983, Yale University
Adair D. Dingle, PhD (1995)
Assistant Professor of Computer Science
BS, Duke University; MLSC, Northwestern University; PhD, 1989, University of Texas/Dallas
Daniel A. Dombrowski, PhD (1988)
Professor of Philosophy
BA, University of Maine; PhD, 1978, St. Louis University
William J. Dore Jr, MA (1963)
Professor of Drama
BA, MA, 1957, University of Washington
Bruce Duba, MS (1998)
Assistant Professor of Software Engineering
BS, 1983, SUNY, Plattsburg, New York; MS, 1985, Indiana University; PhD
candidate, 1987, Indiana University
Jan Warren Duggar, PhD (1998)
Dean, Albers School of Business \& Economics
Professor of Economics \& Finance
BA, 1962 MS, 1965 PhD, 1967 Florida State University, Tallahassee
Theresa Earenfight (1998)
Assistant Professor of History
BA, University of Minnesota; MA, PhD, 1997, Fordham University
Mary B. Ehlers, PhD (1974)
Associate Professor of Mathematics
BA, BA in Ed, Western Washington State College; MA, PhD, 1969, Washington State University

## Peter Ely, SJ (1998)

Visiting Associate Professor of Theology
BA, 1962, MA, 1963, Gonzaga; BD, 1969, Regis College; PhD, 1974, Fordham University

David Engdahl, SJD (1981)
Professor of Law
AB, University of Kansas; LLB, University of Kansas Law School; SJD, 1969, University of Michigan Law School

Anne Enquist, MAT (1982)
Legal Writing Advisor
BA, BS, New Mexico State University; MAT, 1977, University of Washington
Suzanne M. Erickson, PhD (1986)
Associate Professor of Finance
BABA, University of Washington; MBA, Seattle University; PhD, 1987, University of Washington

John D. Eshelman, PhD (1969)
Provost
Professor of Economics
BS, Harding College; MA, PhD, 1971, University of Washington
Maria Bullon-Fernandez, PhD (1995)
Assistant Professor of English
BA, University of Sevilla (Spain); PhD, 1995, Cornell University
Arthur Fisher, PhD (1987)
Dean, Matteo Ricci College
Associate Professor of History
BA, Stanford University; MA, New York University; PhD, 1978, University of California, Berkeley
C. Patrick Fleenor, PhD (1973)

Professor of Business/Management
BA, Boise State College; MBA, PhD, 1975, University of Washington
Ted Fortier, S.J. (Ph.D.)
Assistant Professor, Sociology
B.A., Simon Fraser University; M.A., Gonzaga University; M.Div. and Th.M., Jesuit

School of Theology, Berkeley; Ph.D., 1996, Washington State University.
Sheldon Frankel, LLM (1974)
Professor of Law
BA, University of Connecticut; JD, LLM, 1968, Boston University
Sharon Galbraith, PhD (1986)
Assistant Professor of Business/Marketing
BComm, University of Calgary; MBA, PhD, 1987, University of Washington
John J. Gardiner, PhD (1991)
Professor of Education
BA, PhD, 1973, University of Florida
Pierre C. Gehlen, PhD (1982)
Associate Professor of Mechanical Engineering
BS, Universite de l'Etat a Liege; PhD, 1966, Northwestern University

Lane A. Gerber, PhD (1980)
Professor of Psychology
BS, Franklin and Marshall College; PhD, 1968, University of Chicago
Karen A. Gilles, MLS (1981)
Assistant Librarian
BA, University of Illinois; MLS, 1978, University of Washington

## Roger Gillis, S.J., MFA (1987)

BA, MA, Gonzaga University; MFA, 1986, Catholic University

## Nirmala Gnanapragasam, PhD (1993)

Associate Professor of Civil and Environmental Engineering
BSc, University of Moratuwa; MLSC, PhD, 1992, Northwestern University. Registered professional engineer.
Ki Gottberg (1995)
Assistant Professor of Drama
BA, Western Washington University; MFA, 1983, University of Washington
AB, Gonzaga University; MDiv, Weston School of Theology; MBA, New York
University; PhD, 1986, University of Colorado
James M. Grijalva (1998)
Visiting Professor of Law
BA, Claremont McKenna College; JD, Northwest School of Law of Lewis and Clark College, 1989
Kristin E. Guest, PhD (1981)

## Professor of Education

BA, BS, University of Minnesota; MA, PhD, 1970, University of Wisconsin

## Gretchen Gundrum, PhD (1998)

Assistant Professor in the School of Theology \& Ministry BA, 1970, Edgedcliff College; MA, 1973, Middlebury College; PhD, 1997, Pacifica Graduate Institute
Tomas Guillen, MA, (1994)
Assistant Professor of Communication and Journalism BA, University of Arizona; MA, 1990, University of Washington
Reed A. Guy, PhD (1975)
Professor of Physics
BS, University of Alabama; PhD, 1970, University of Virginia
Wynne A. Guy, MA (1979)
Assistant Professor of Mathematics
BA, University of Alabama; MA, 1969, University of Virginia
Steen Halling, PhD (1976)
Professor of Psychology
BA, York University; MA, PhD, 1976, Duquesne University

## Elizabeth L. Hanson, MA (1995)

Instructor of Japanese
BS, University of Illinois/Urbana-Champagne; MA, 1992, University of Washington

## J. Hutchinson Haney, MLSC (1974)

Assistant Professor of Counseling Education
BA, University of Denver; MLSC, 1968, University of Arizona

James Harbaugh, S.J., PhD (1993)
Lecturer of Addiction Studies
BA, MA, St. Louis University; MDiv, Jesuit School of Theology at Berkeley; PhD, 1981, University of Chicago
John M. Harding, JD (1975)
Visiting Lecturer of Accounting BA, Yale University; JD, 1948, Yale Law School
Jan Hartley, MILS (1999)
Assistant Librarian
BA, 1988, Washington College; MILS, 1990, University of Michigan, Ann Arbor
Rebecca Hartley, PhD (1990)
Associate Professor of Biology
BS, University of Washington; PhD, 1989, Indiana University
Suzanne Harvey, MLS (1993)
Assistant Law Librarian
BA, University of California, Davis; MLS, 1973, University of Washington
Robert G. Heeren, PhD (1983)
Professor of Electrical Engineering
BS, Purdue University; MLSC, PhD, 1968, University of Illinois
Jacqueline B. Helfgott, PhD (1993)
Associate Professor of Criminal Justice
BA, University of Washington; MA, PhD, 1992, Pennsylvania State University
Jean Henrikson, M Libr (1987)
Assistant Librarian
M Libr, 1976, University of Washington
Bridget G. Hiedemann, PhD (1994)
Assistant Professor of Finance and Economics
BA, University of Virginia; PhD 1992, Duke University
Constance Hirnle, MN (1992)
Assistant Professor of Nursing
BS, State University of New York, Buffalo; MN, 1990, University of Washington

## Thomas J. Hofferd, PhD (1995)

Assistant Professor of Accounting
BS, California State University, Bakersfield; CPA, MST, Golden Gate University; PhD, 1994, University of Central Florida
James B. Hogan, PhD (1976)
Professor of Political Science
Coordinator, Public Administration
AB, Long Beach State; MA, University of California at Los Angeles; PhD, 1970, Cornell University
Thomas Holdych, JD (1972)
Professor of Law
BA, Rockford College; JD, 1970, University of Illinois

## Betsy Hollingsworth, JD (1986)

Clinical Professor of Law, Director of Law Practice Clinic BA, Occidental College; JD, 1975, University of Washington

## Michael "Yellowbear" Holloman, MFA (1993)

Associate Professor of Fine Arts
BA, Evergreen State College; MAT, Gonzaga University; MFA, 1993, Washington State University

Leanna L. Holmer, PhD (1995)
Assistant Professor, Institute of Public Service BA, MPA, PhD, 1993, Ohio State University
Burt C. Hopkins, PhD (1990)
Associate Professor of Philosophy
BA, Allegheny College; MA, Ohio Univers ty; PhD, 1988, DePaul University
Patrick Howell, S.J., D Min (1986)
Professor of Theological Studies and Theology/Religious Studies
BS, Gonzaga University; MA, Boston Colleqe; DMin, 1985, Catholic University of America

Margaret L. Hudson, PhD (1974)
Associate Professor of Biology
BS, PhD, 1974, University of Washington
Nalini Iyer, PhD (1993)
Associate Professor of English
BA, University of Madras, Stella Maris College, India; MA, PhD, 1993, Purdue University

Susan C. Jackels, PhD (1995)
Chair, Chemistry Department
Professor of Chemistry
BA, Carleton College; PhD, 1972, University of Washington
Jean Jacoby, PhD (1991)
Clare Booth Luce Professor
Associate Professor of Environmental Engineering
BS, University of Wisconsin, Stevens Point; PhD, 1986, University of Washington

## Loretta Jancoski, PhD (1988)

Dean, School of Theology and Ministry
Assistant Professor of Theology
BA, College of St. Mary; MA, University of Notre Dame; MA, PhD, 1976, University of Chicago Divinity School

## Edward J. Jennerich, PhD (1987)

Institute for Public Service
Professor of Education
BA, Trenton State College; MLSC, Drexel University; PhD, 1974, University of Pittsburgh

## Christine M. Jensen, EdD

Visiting Assistant Professor of Education
BA, 1968, MS, 1980, Oregon College of Education; EdD, 1987, Texas A\&M
University-Commerce (East Texas State University)

```
Sharon Jensen, MN, RN (1998)
Instructor, Nursing
B.S., 1977, Michigan State University; M.N., 1993, University of Washington.
```

Dolores M. Johnson, PhD (1964)
Associate Professor of English
BA, MA, PhD, 1971, University of Washington
Christina Joy, DNSc, RN (1997)
Assistant Professor of Nursing
BS, 1970, Ohio State University; MS, 1978, University of Colorado
Michael M. Kelliher, S.J., D Crim (1972)
Associate Professor of Sociology
AB, Gonzaga University; STB, University of Santa Clara; M Crim, D Crim, 1972, University of California at Berkeley
Paul Kidder, PhD (1989)
Associate Professor of Philosophy
BA, University of Washington; MA, PhD, 1987, Boston College
Paulette Kidder, PhD (1989)
Associate Professor of Philosophy
BA, University of Washington; MA, PhD, 1989, Boston College
Constance M. Krontz, JD (1995)
Legal Writing Instructor
BA, University of Washington; JD, 1989, Seattle University
Kevin Krycka, PsyD (1989)
Chair, Department of Psychology
Assistant Professor of Psychology
BA, Aquinas College; PsyD, 1988, Illinois School of Professional Psychology
Kelly Kunsch, MLS (1987)
Associate Law Librarian
BA, Gonzaga University; JD, MLS, 1985, University of Washington
Georg D. Kunz, PhD (1971)
Associate Professor of Psychology
AB, PhL, Gonzaga University; MA, Marquette University; PhD, 1975, Duquesne University
Marianne LaBarre, MA (1987)
Director, Executive Leadership Certificate Program
Assistant Professor of Theology
BA, Marylhurst College; MA, 1981, St. Mary's College of California

## Marc Lampson, JD (1990)

Legal Writing Instructor
BA, California State University, Sacramento; JD, 1984, Antioch School of Law
S. Kathleen LaVoy, PhD (1988)

Associate Professor of Psychology
BA, MA, California State University; MLSC, PhD, 1988, University of CA, Santa Cruz
Charles Lawrence, PhD (1989)
Chair, Department of Sociology
Assistant Professor of Sociology
BA, Whitman College; MA, PhD, 1981, New School for Social Research
Jacqueline Leibsohn, PhD (1991)
Associate Professor of Education
BA, University of California, San Diego; MLSC, PhD, 1989, Colorado State University

David J. Leigh, S.J., PhD (1983)
Director, University Core Curriculum
Chair, English Department
Professor of English
BA, MA, Gonzaga University; MA, Regis College, Toronto; PhD, 1972, Yale University
William F. LeRoux, S.J., MA, STD (1958)
Assistant to the Vice President for University Relations
Professor of Theology and Religious Studies
BA, MA, Gonzaga University; STL, Alma College; STD, 1959, Gregorian
Kan Liang, PhD (1995)
Assistant Professor of History
BA, MA, Nanjing University; PhD, 1995, Yale University
Raven Lidman, JD (1987)
Clinical Assistant Professor of Law
BA, Cornell University; JD, 1977, University of Puget Sound School of Law
Sharon A. Lobel, PhD (1991)
Associate Professor of Business/Administration
BA, Brandeis University; MA, PhD, 1984, Harvard University
Diane L. Lockwood, PhD (1981)
Associate Professor of Business/Management Information Systems
BS, MA, PhD, 1981, University of Nebraska

## Madeline Lovell, PhD (1992)

Associate Professor of Sociology
BA, University of Toronto; MSW, University of Toronto; PhD, 1986, University of Washington
Paula Lustbader, JD (1988)
Director of Academic Resources
BS, Southern Oregon State College; JD, 1988, University of Puget Sound School of Law
Lieutenant Colonel Thomas L. Madigan, MA (1994)
Chair, Military Science Department
BS, University of South Dakota; MA, 1993, Webster University
David W. Madsen, PhD (1981)
Director, Honors Program
Associate Professor of History
BA, Seattle University; PhD, 1981, University of Washington
Gregory M. Magnan, PhD (1992)
Assistant Professor of Management
BA, MBA, PhD, 1994, Michigan State University

## Judith Maier

Legal Writing Instructor
B.S., Syracuse University; M.B.A., Pacific Lutheran University; J.D., University of Puget Sound.
R. Maxime Marinoni, PhD (1964)

Professor of French
Licence, Universite de Grenoble; MA, PhD, 1975, University of Washington

David Marshak, EdD (1992)<br>Associate Professor of Education<br>BA, Yale University; MAT, University of New Hampshire; EdD, 1985, Harvard<br>University<br>Gregory S. Mason, PhD (1993)<br>Assistant Professor of Mechanical Engineering<br>BS, Gonzaga University; MLSC, Georgia Institute of Technology; PhD, 1992,<br>University of Washington<br>Daniel B. Matlock, PhD (1984)<br>Associate Professor of Biology<br>BS, University of California; MLSC, PhD, 1978, Oregon State University<br>Jack D. Mattingly, PhD (1988)<br>Associate Professor of Mechanical Engineering BS, MLSC, University of Notre Dame; PhD, 1982, University of Washington

Susan McClellan, JD (1992)
Legal Writing Instructor
BA, University of Washington; MEd, University of Alaska; JD, 1988, University of Washington School of Law

David D. McCloskey, PhD (1971)
Associate Professor of Sociology
BS, University of Oregon; MA, The New School For Social Research; PhD, 1978, University of Oregon
Henry McGee, Jr, LLM (1994)
Professor of Law
BS, Northwestern University; JD, DePaul University; LLM, 1970, Columbia University
Margit McGuire, PhD (1987)
Professor of Education
BA, Washington State University; MEd, Central Washington State College; PhD, 1975, University of Oregon
John E. Meany, PhD (1983)
Professor of Chemistry
BS, Seattle University; PhD, 1966, University of Washington
Robert A. Menanteaux, MLS (1978)
Assistant Law Librarian
AB, Bradley University; MA, Sangamon State University; MLS, 1978, Syracuse
University
Paul B. Milan, PhD (1966)
Associate Professor of French
BA, Seattle University; MA, PhD, 1972, University of Washington
Jacquelyn C. Miller, MA (1994)
Assistant Professor of History
BS, Milligan College; MLS, MA, 1988, Rutgers University
Everald E. Mills, PhD (1983)
Associate Professor of Software Engineering
BS, University of Nebraska; MLSC, PhD, 1972, Washington State University

Janet E. Mills, PhD (1984)
Chair, Department of Mathematics
Professor of Mathematics
BA, Western Washington State College; PhD, 1970, Pennsylvania State University
Ahmad Mirbagheri, PhD (1983)
Professor of Mathematics
BS, Tehran Teacher's College; MA, PhD, 1965, Indiana University
Helen Miske (1998)
Instructor, Nursing
BSN, Northern Illinois University; MS, 1994, University of Washington

## John Mitchell, JD (1991)

Director, Law Clinic Practice
Clinical Associate Professor of Law
BA, University of Wisconsin, Madison; JD, 1970, Stanford Law School
MAK Mitchell (1998)
Associate Professor of Education
BA, LeMoyne College; MA, EdD, 1989, Harvard University
Michael A. Morgan, PhD (1984)
Chair, Department of Physics
Associate Professor of Physics
BS, MLSC, PhD, 1984, University of Washington
Steven Morris, MA (1988)
Instructor of Addiction Studies
BA, California State University, Northridge; MA, 1977, Loyola Marymount University
Alvin T. Moser, PhD (1988)
Associate Professor of Electrical Engineering
BS, Massachusetts Institute of Technology; MLSC, University of Washington; PhD, 1988, University of Illinois. Registered Professional Engineer
Diane S. Murphy, PhD (1992)
Associate Professor of Education
BS, Wheaton College; MLSC, Northern Illinois University; PhD, 1988, San Diego
State University

## Alex Nava

Assistant Professor, Theology
B.A., 1989, The University of Arizona; Ph.D., 1997, The University of Chicago.

Hollis P. Near, MA (1995)
Instructor Librarian
BA, Antioch College; MA, 1992, University of Washington

## Paul O. Neudorfer, PhD (1980)

Chair, Electrical Engineering Department
Professor of Electrical Engineering
BSEE, MSEE, PhD, 1979, University of Washington
Larry Curtis Nichols, MA, (1993)
Director, Writing Center
Instructor
BA, University of Washington; MA, 1974, University of Iowa

## Maureen Niland, PhD (1986)

Associate Professor of Nursing BS, Arizona State University; MLSC, University of California, San Francisco; PhD, 1986, University of Washington

## Robert H. Novak, MLS (1981)

Head of Reference Department
Assistant Librarian
BA, MA, State University of New York at Albany; MLS, 1976, University of Oregon
Laurel Currie Oates, JD (1980)
Director of Legal Writing Program
BA, Western Washington University; JD, 1978, University of Puget Sound School of Law

Carl Obermiller, PhD (1989)
Associate Professor of Business/Marketing BA, Purdue University; PhD, 1983, Ohio State University
Jodi A. O'Brien, PhD (1995)
Associate Professor of Sociology
BA, University of Utah; MA, PhD, 1992, University of Washington
R. Michael O'Connor, PhD (1974)

Associate Professor of Education
BA, MEd, University of Washington; PhD, 1974, University of Minnesota

## Ignatius Ohno, S.J.

Assistant Professor, School of Theology \& Ministry
B.A., 1981, University of Washington; Licentiate in Philosophy, 1987, Gonzaga

University; M.Div., 1991, Weston School of Theology; Doctor of Ministry, 1996, Andover Newton Theological School.
Erik J. Olsen, PhD (1989)
Associate Professor of Political Science
BA, College of Wooster; MA, PhD, 1991, University of Wisconsin, Madison

## William Oltman, JD (1974)

Professor of Law
BA, University of Wisconsin; JD, 1969, University of Michigan School of Law
Lammert B. Otten, S.J., PhD (1983)
Associate Professor of Electrical Engineering
AB, PhL, BS, St. Louis University; MEE, The Catholic University of America; STL, St.
Louis University; PhD, 1973, University of Missouri. Registered Professional Engineer
Yvonne J. Owen, PhD (1980)
Associate Professor of Education
BS, PhD, 1978, University of Washington
Aysegül Özsomer, PhD (1993)
Associate Professor of Management
BA, MA, Bogazici University, Turkey; PhD, 1993, Michigan State University

## Marilyn Page

Visiting Professor of Education
BA, Boston University; MA, University of Massachusetts-Boston, PhD, 1992,
University of MAssachusetts-Amherst

## Barbara Parker, PhD (1991)

Associate Professor of Management
BA, Ball State University; MBA, PhD, 1985, University of Colorado

## James E. Parry, MA (1961)

Associate Professor of History
BA, Seattle University; MA, 1963, University of Washington
Graham J. Patrick, PhD, CNP (1998)
Assistant Professor of Nursing
AS, 1979, Santa Monica College; AS, 1983, Highline Community College; BS 1989,
MA 1991, PhD 1994, University of Washington
C. Denise Pauley, ML (1967)

Associate Librarian
BA, ML, 1967, University of Washington
Jaime Jose Perozo, Phd (1989)
Associate Professor of Foreign Languages
BA, Texas A\&I; MA, Washington State University; MA, Washington State University; PhD, University of Oregon; PhD, 1994, University of Washington

## Mark Perry, PhD (1998)

Visiting Assistant Professor of Education
BA, 1988, Northeastern Illinois University; M.Ed, 1993, PhD 1996, University of Illinois at Chicago
Dean Peterson, PhD (1991)
Assistant Professor of Economics and Finance
BA, Augustana College; MLSC, PhD, 1994, University of Illinois at Urbana-
Champaign
Jane W. Peterson, PhD (1969)
Professor of Nursing
BS, Boston University; MN, PhD, 1981, University of Washington

## Kara Lea Phillips

Law Librarian
B.A., 1987, University of Washington; J.D., 1991, University of Washington; M.L., 1992, University of Washington.

## Jeffrey S. Philpott, MA (1992)

Assistant Professor of Communication
BS, Lewis and Clark College; MA, 1983, University of Nebraska
Jeffrey Warren Pope, BS (1990)
Chair, Diagnostic Ultrasound Department
Instructor of Diagnostic Ultrasound
BS, 1979, Western Washington University
John Popko, MSLS (1994)
University Librarian
BA, University of Missouri, Kansas City; MSLS, 1978, University of Kentucky
Gregory E. Prussia, PhD (1993)
Associate Professor of Business/Administration
BA, MBA, California State University, Chico; PhD, 1991, Arizona State University

## Elayne Puzan, Ph.D.

Assistant Professor, Nursing
B.S.,1973, University of Oregon; M.S.N., 1980, Lane Community College and 1990, Oregon Health Sciences University; Ph.D., 1997, University of Massachusetts.
Janet P. Quillian, PhD (1994)
Associate Professor
ADN, BSN, University of Nevada; MSN Texas Woman's University; PhD, 1982, University of Texas School of Public Health

## Peter Raven, PhD (1998)

Visiting Associate Professor of Marketing
BS, 1964, Cornell University; MS, 1969, University of California, Davis; PhD, 1991, Washington State University
Victor Reinking, PhD (1990)
Chair, Department of Foreign Languages
Associate Professor of French
BA, University of Colorado; MA, PhD, 1993, University of Washington
Mark Reutlinger, JD (1978)
Professor of Law
AB, JD, 1978, University of California, Berkeley
J. Christopher Rideout, PhD (1978)

Associate Director, Legal Writing Program
BA, University of Puget Sound; MA, PhD, 1982, University of Washington
Paul D. Riley, MLS (1989)
Assistant Librarian
BA, Arizona State University; MLS, 1976, University of Arizona
James C. Risser, PhD (1979)
Professor of Philosophy
BA, California State University, Long Beach; MA, PhD, 1978, Duquesne University
Mary Jean Rivers, PhD (1978)
Associate Professor of Economics
Program Director, Master of Arts in Applied Economics
BA, MA, PhD, 1982, University of Pittsburgh
J. Fiona Robertson, PhD (1987)

Assistant Professor of Finance
BA, Brock University; MA, PhD, 1992, Queen's University
Mark Roddy, PhD (1992)
Associate Professor of Education
BS, University of California at Riverside; MLSC, PhD, 1992, University of Washington

## Jeanette Rodriguez-Holguin, PhD (1990)

Chair, Department of Theology and Religious Studies Department
Associate Professor of Theology and Religious Studies
BA, Queens College; MA, Fordham University; MA, University of Guam; PhD, 1990, Graduate Theological Union, Berkeley
Rev. Stephen C. Rowan, PhD (1986)
Associate Professor of English
BA, Fairfield University; STB, St. Mary's Seminary and University; MA, PhD, 1985, University of British Columbia

Jan O. Rowe, PhD (1982)
Chair, Psychology Department Associate Professor of Psychology BA, MEd, PhD, 1982, Georgia State University
Judith Sanderson, PhD (1991)
Associate Professor of Theology and Religious Studies
BA, Covenant College; MDiv, Covenant Theological Seminary; MA, Institute of Holy Land Studies; PhD, 1981, University of Notre Dame
James E. Sawyer, PhD (1977)
Associate Professor of Political Science
BS, Weber State College; PhD, 1975, University of Utah
C. Bradley Scharf, PhD (1979)

Professor of Political Science
BA, Colorado College; MA, PhD, 1974, Stanford University

## Keith A. Schildt (1998)

Assistant Professor, Institute of Public Service
BA, MA 1987, Roosevelt University; MPA, 1993 Northern Illinois University, PhD, 1998, Northern Illinois University
Katherine Schlick Noe, PhD (1986)
Associate Professor of Education
BA, MEd, PhD, 1985, University of Washington
Sue A. Schmitt, EdD (1996)
Dean, School of Education
Professor of Education
BA, Viterbo College, 1969; MEd, University of Missouri, 1971; EdD, Mississippi
State University, Starkville, 1984; Harvard institute on Education Management, 1989
Andrew Schulz, MPhil (1994)
Assistant Professor of Fine Arts
BA, Dartmouth College; MA, MPhil, 1991, Columbia University
Richard T. Schwaegler, PhD (1959)
Professor of Civil and Environmental Engineering
BS, MLSC, Massachusetts Institute of Technology; PhD, 1968, University of
Washington. Registered Professional Engineer
Susan Secker, PhD (1989)
Associate Provost
BA, Rosary College; MDiv, STB, Loyola University; PhD, 1989, University of Chicago

## Mary A. Seidel (1998)

Instructor of Nursing
BS, Boston College; MS, Boston University; Certificate of Advanced Graduate Study, MA, 1986, University of Washington
Marylou Sena, PhD (1989)
Associate Professor of Philosophy
BA, MA, University of Florida; PhD, 1988, Depaul University
Mary L. Sepulveda, ML (1973)
Assistant Librarian
BA, ML, 1973, University of Washington

## Richard Settle, JD (1968)

Professor of Law
BA, JD, 1967, University of Washington
Julie Shapiro, JD (1991)
Associate Professor of Law
BA, Weslayan University; JD, 1982, University of Pennsylvania
Joy Sherman, PhD (1991)
Assistant Professor of Fine Arts
BA, San Francisco State University; MA, San Jose State University; PhD, 1991, University of Colorado

Susan E. Shevlin, PhD (1995)
Associate Professor of Accounting
BS, Lehigh University; MLSC, Graduate School of Management, University of Rochester; PhD, 1989, Graduate School of Business Administration, University of Rochester

Mary Sidel, Phc, RN<br>Instructor, Nursing<br>B.S., 1964, Boston College; M.A., Boston College; M.A., 1980, University of Washington; PhC, University of Washington.

Raquel Silva, MA (1990)
Instructor of Spanish BA, MA, 1989, University of Washington
George M. Simmons, PhD (1998)
Dean, School of Science and Engineering Professor of Chemistry and Mechanical Engineering BS, MS, University of Idaho; PhD, 1970, Stanford University
Andrea C. Skelly, BS (1981)
Assistant Professor of Diagnostic Ultrasound BS, 1980, Seattle University
David Skover, JD (1982)
Professor of Law
AB, Princeton University; JD, 1978, Yale Law Scool

## Kristen J. Skogerboe, PhD (1995)

Assistant Professor of Chemistry
BS, Colorado State University; PhD, 1987, Iowa State University
Rolf T. Skrinde, PhD (1984)
Chair, Department of Civil and Evironmental Engineering
Professor of Civil Engineering
BS, Washington State University; MLSC, PhD, 1958, Massachusetts Institute of Technology. Registered Professional Engineer
Daniel R. Smith (1998)
Assistant Professor of Biology
BS, PhD, 1996, Post Doctoral Associate, 1996-97, University of Minnesota

## Mary-Antoinette Smith, PhD (1994)

Assistant Professor of English
BA, University of Southern California; MA, Loyola Marymount University; MA, PhD, 1994, University of Southern California

## Timothy L. Sorenson, PhD (1991)

Associate Professor of Economics and Finance
BA, University of Washington; AM, PhD, 1991, Harvard University

## Sharron Snyder Palmiter

Assistant Librarian
A.B., 1971, Syracuse University; M.L.S., 1974, University of Maryland.

Mitchell Spector, PhD (1986)
Associate Professor of Computer Science
BS, John Carroll University; PhD, 1976, Massachusetts Institute of Technology
James L. Stark, DA (1972)
Professor of German
BA, University of Portland; MA, DA, 1972, University of Washington

## Brendan Starkey, MLS (1999)

Assistant Law Librarian
BA, 1993, University of San Diego; MLS, 1995, University of Kentucky
Jeffrey Stephens, PhD (1994)
Associate Professor of Chemistry
BA, Southwest State University; PhD, 1989, University of Montana
Harriet B. Stephenson, PhD (1967)
Professor of Business/Management
BA, MBA, PhD, 1966, University of Washington
Mary Stewart Hall, PhD (1995)
Professor of Not for Profit Management in the Institute of Public Service BS, MA, PhD, University of Oregon
Kenneth W. Stikkers, PhD (1981)
Professor of Philosophy
BA, MA, PhD, 1982, DePaul University
John Strait, JD
Associate Professor of Law
BA, University of California, Davis; JD, 1969, Yale Law School

## Jeremy Stringer, PhD (1984)

Associate Professor of Education
BA, Southern Methodist University; MA, PhD, 1973, University of Wisconsin

## Kathleen Sullivan, RSCRJS, PhD (1987)

Associate Professor of Mathematics and Computer Science
BS, Duquesne College; MA, Catholic University of America; PhD, University of Wisconsin; MLSC, 1987, University of Iowa;
Donna Sylvester, PhD (1990)
Associate Professor of Mathematics
BS, Bethany College; MA, PhD, 1988, Duke University
Andrew A. Tadie, PhD (1979)
Associate Professor of English
ABCl, John Carroll University; MA, Bradley University; PhD, 1972, St. Louis
University

## Margarita Takach, PhD (1990)

Associate Professor of Electrical Engineering
BS, University of Michigan; MSEE, University of Wisconsin; PhD, 1990, University of
Washington

## Thomas W. Taylor, PhD (1988)

Chair, History Department Associate Professor of History BA, St. John's University; MA, PhD, 1988, University of Minnesota
William Taylor, MA (1963)
Associate Professor of English
BA, Seattle University; MA, 1966, University of Washington
Donna Teevan, PhD (1997)
Assistant Professor of Theology and Religious Studies
BA, MA, University of Notre Dame; PhD, 1994, University of St. Michael's College (Toronto School of Theology)
Luth M. Tenorio, PhD, (1993)
Dean, School of Nursing
Professor of Nursing
MLSC, Indiana University; PhD, 1986, Texas Woman's University
Kellye Testy, JD (1992)
Associate Professor of Law
BA, Indiana University; JD, 1991, Indiana University School of Law

## Phillip L. Thompson, PhD

Assistant Professor, Civil \& Environmental Engineering
B.A., 1990, The University of Iowa; M.A., 1992, The University of Iowa; Ph.D., 1997, The University of Iowa

David L. Thorsell, PhD (1974)
Associate Professor of Chemistry
BA, University of Minnesota; PhD, 1971, Ohio State University
Vicky Minderhout Thorsell, PhD (1980)
Associate Professor of Chemistry BS, Kalamazoo College; MLSC, PhD, 1977, Northwestern University
David E. Tinius, PhD, CPA (1970)
Chair, Accounting Department
Professor of Accounting
BSME, MBA, PhD, 1977, University of Washington
Rex Swee-Kee Toh, PhD (1980)
Professor of Business
BE, University of Malaya; MLSC, PhD, 1975, University of Minnesota
L. John Topel, S.J., PhD (1971)

Assistant to the President for Jesuit Identity
Professor of Theology and Religious Studies
BA, MA, Gonzaga University; STM, Santa Clara University; SSL, Pontifical Biblical Institute; PhD, 1973, Marquette University
John P. Toutonghi, PhD (1963)
Professor of Physics
BS, Seattle University; PhD, 1963, University of Washington
Sister Rosaleen Trainor, CSJ, PhD (1965)
Chair, Department of Philosophy
Professor of Philosophy
BEd, Seattle University; MA, PhD, 1966, St. John's University

## Ruben Trevino, PhD (1989)

Associate Professor of Finance
BS, MBA, Instituto Tecnologico de Monterrey; MLSC, Georgia Institute of Technology; PhD, 1980, University of Alabama
David Umphress, PhD (1993)
Chair, Department of Computer Science and Software Engineering Associate Professor of Computer Science and Software Engineering BS, Angelo State University, MCS, PhD, 1987, Texas A\&M University

## Nina L. Valerio, PhD (1993)

Assistant Professor in the Department of Curriculum and Instruction
BSc, Philippine Women's University; MSc, University of Iowa; PhD, 1991, University of Washington
Josef Venker, MFA, S.J. (1994)
Assistant Professor of Fine Arts
BA, St. Louis University; BFA, California College of Arts and Crafts; MDiv, Jesuit
School of Theology, Berkeley; MA, Holy Names College; MFA, 1994, University of Denver

Toni Vezeau, PhD (1994)
Assistant Professor of Nursing
BSN, St. Louis University; MSN, PhD, 1992, University of Colorado Health Sciences Center

Cynthia Waltman, PhD
Visiting Associate Professor of Education
BA, 1979, New England College; MS, 1981, Central Connecticut State University; PhD, 1991, University of Connecticut
Carol Weaver, PhD (1989)
Chair, Division of Leadership snd Service, School of Education Associate Professor of Education
BS, Washington State University; MEd, Oregon State University; PhD, 1981, Ohio State University
John Weaver, JD (1972)
Professor of Law
AB, Dartmouth College; JD, 1969, University of Michigan Law School
Christian E. Weber, PhD (1993)
Associate Professor of Economics and Finance
MA, University of North Carolina at Greensboro; PhD, 1992, Duke University
Edwin H. Weihe, PhD (1972)
Associate Professor of English
BA, Brown University; MA, MFA, PhD, 1972, University of Iowa
Susan Weihrich, PhD (1989)
Associate Professor of Accounting
BA, Rice University; MLSC, PhD, 1986, University of Houston
William L. Weis, PhD, CPA (1973)
Professor of Accounting
BSBA, MBA, Bowling Green State University; PhD, 1979, University of Washington

Henry Wigglesworth, JD (1996)
Instructor of Legal Writing
AB, Harvard University, 1980; JD, University of New Mexico School of Law, 1988
Susan Willard, MAJ, BA (1990)
Assistant Professor of Military Science
BA, 1975, Boston College
Delight C. Willing, EdD (1987)
Associate Professor of Education
BA, Carleton University; MA, EdD, 1980, Seattle University
Kenneth Wing, JD, MPH (1990)
Professor of Law
BA, University of California, Santa Cruz; JD, Harvard Law School; MPH, 1972, Harvard School of Public Health

Ann Witte, PhD(1996)
Assistant Professor of Foreign Languages
BA, Friedrich Wilhelms-Universitat, Germany, 1983; MA, University of Texas, Austin, 1986; PhD, University of Texas, Austin, 1991

## Shannon Woodahl Kraft

Assistant Director Academic Resource Center
B.A., 1990, University of Puget Sound; J.D., 1993, Seattle University.

Ramona Writt, JD (1994)
Legal Writing Instructor
BA, University of Texas; JD, 1991, University of Puget Sound School of Law
Andre L. Yandl, PhD (1956)
Professor of Mathematics
BS, MA, PhD, 1965, University of Washington
Glenn Koichi Yasuda, PhD, (1994)
Assistant Professor of Biology
BSc, University of California, Los Angeles; PhD, 1992, University of Washington
Barbara M. Yates, PhD (1970)
Program Director, Master of Science in Finance
Chair, Economics and Finance Department
Professor of Economics
BA, College of Wooster; MLSC, PhD, 1969, University of Michigan

## Richard Young, PhD (1987)

Associate Professor of Political Science
BA, Lawrence University; MAT, Northwestern University; PhD, 1979, Stanford University

## Lisa Yasmin Zaidi, PhD (1994)

Assistant Professor of Psychology
BA, Wellesley College; MA, PhD, 1988, University of Iowa
Gary H. Zarter, PhD (1973)
Associate Professor of Education
BA, St. Norbert College; MA, San Francisco State; PhD, 1973, University of Washington

## Faculty Emeriti

Mary C. Bartholet, MS (1958)
N. Jean Bushman, MN, (1960)

Donald M. Carmichael, LLM (1977)
Ben Cashman, PhD, (1962)
Chu Chiu Chang, MA (1956)
Louis K. Christensen, PhD (1965)
Thomas W. Cunningham, PhD (1959)
Nickolas J. Damascus, MFA (1951)
Margaret Mary Davies, PhD (1955)
Rosario T. DeGracia, MSN, R.N., C (1963)
Bonnie Jean Denoon, PhD (1975)
Robert Egan, S.J., PhD (1964)
Patricia A. Ferris, PhD (1967)
Lewis Filler, PhD (1962)
Winfield S. Fountain, EdD (1957)
John J. Gilroy, PhD (1998)
James P. Goodwin, S.J., MA (1950)
William A. Guppy, PhD (1952)
Margaret M. Haggerty, PhD (1971)
John M. Harding, JD (1975)
Charles Robert Harmon, MA (1953)
Hildegard R. Hendrickson, PhD (1967)
Marvin T. Herard, MFA (1960)
Helon E. Hewitt, MN (1965)
Jeanette Hulbert, ML (1964)
Dolly Ito, DNS (1959)
Warren B. Johnson, PhD (1962)
Charles S. LaCugna, PhD (1947)
James Robert Larson, PhD (1952)

Francis A. Logan, S.J., MA (1939)
Reba Y. Lucey, MEd (1969)
Kenneth D. MacLean, PhD (1961)
Harry Majors Jr, MS (1958)
Leonard B. Mandelbaum, PhD (1998)
Alexander F. McDonald, S.J., MA (Oxon) (1969)
Sister Mary Roberta McMahon, OP, PhD (1962)
Joseph B. Monda, PhD (1955)
John A. Morford, EdD (1973)
James E. Parry (1961)
Vincent S. Podbielancik, PhD (1947)
Sister Christopher Querin, SP, PhD (1960)
James Reichman, S.J., PhD (1965)
Stephen Robel, MS (1950)
Erlinda F. Rustia, LittD (1972)
Robert D. Saltvig, PhD (1962)
George A. Santisteban, PhD (1964)
Richard Sherburne, S.J., PhD (1977)
Edward H. Spiers, MA (1949)
Bernard M. Steckler, PhD (1961)
Carl E. Swenson, PhD (1976)
John Talevich, MA (1955)
Michael J. Taylor, S.J., STD (1961)
Kathleen Treseler, CRN, MSN (1968)
Alan Troy, PhD (1970)
Richard L. Turner, PhD (1963)
Roy P. Wahle, EdD (1977)
Marylou Wyse, PhD (1965)
Casimir E. Zielinski, EdD (1979)

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## Index of Discipline Codes <br> (Includes Graduate programs; excludes Law School)

| ACCT | Accounting Addiction Studies | ISSS | Interdisciplinary Social Science |
| :---: | :---: | :---: | :---: |
| AEDT | Adult Education and Training | JPAN | Japanese |
| ANTH | Anthropology | LATN | Latin |
| ART | Art | LBST | Liberal Studies |
| BIOL | Biology | MATH | Mathematics |
| BUEN | Business Environment | MBA | Master in Business Administration |
| CEEGR | Civil and Environmental Engineering | MGMT | Management |
| CHEM | Chemistry | MKTG | Marketing |
| CLBR | Culture and Language Bridge | MLSC | Military Science |
| CMJR | Communication/Journalism | MMEGR | Mechanical/Manufacturing Engineering |
| Coun | Education - Counseling | MUSC | Music |
| Crse | Criminal Justice | MVST | Medieval Studies Minor |
| CSSE | Computer Science/Software Engineering | NPLR | Not-for-Profit Leadership |
| CUIN | Education - Curriculum and | NURS | Nursing |
|  | Instruction | OPER | Operations |
| DIUS | Diagnostic Ultrasound | PHIL | Philosophy |
| DRMA | Drama | PHYS | Physics |
| ECON | Economics | PLSC | Political Science |
| ECST | Ecological Studies | PSYC | Psychology |
| EDAD | Educational Administration | PUBM | Public Administration |
| EDLR | Educational Leadership |  | Graduate Level |
| EPDXX | Professional Development-Post-Baccalaureate | SDAD | Student Development Administration |
| EDUC | Education | SOCL | Sociology |
| EEGR | Electrical Engineering | socw | Sociology /Social Work |
| ENGL | English | SPAN | Spanish |
| FINC | Finance | SPSY | Education - School Psychol- |
| FINR | Fine Arts | SABD | Study Abroad |
| FREN | French Foreign Language | STMA | Institute for Theological |
| FRERM | Foreign Language |  | Studies - Advanced |
| GREK | German | STMM | Institute for Theological |
|  | Gree |  | Studies |
| HIST | History | TEED | Teacher Education |
| HONR | Humanities (Honors) | TRST | Theology and Religious |
| HRMA | Human Resources Management | TSOL | Studies - Undergraduate Teaching English to Speakers |
| HUMT | Humanities (Matteo Ricci College) |  | of Other Languages Graduate Level |
| INBU | International Business | WMST | Women's Studies |
| INFO | Information Technology |  |  |
| ISSC | Interdisciplinary Science (See General Science) |  |  |

## 1999-2000 Academic Year

## Fall Quarter 1999

September 14 (Tues)
September 15 (Wed)
September 16-20 (Th-Mon)
September 21 (Tues)
September 28 (Tues)
October 29 (Fri)
November 1 (Mon)
November 5-10, 12
(Fri; Mon-Wed; Fri)
November 11 (Th)
November 14 (Sun)
November 15 (Mon)
November 15 (Mon)
November 19 (Fri)
November 24-27 (Wed-Sat)
December 4 (Sat)
December 6-11 (Mon-Sat)
December 15 (Wed)
December 15 (Wed)

University Convocation for faculty and staff Tuition and fees due for fall quarter Fall orientation: Building for Success (All new freshmen are required to be present)
All classes begin Last day to register, add/drop or change grading option
University planning - faculty/staff in service day (no classes)
Last day to apply for spring and summer 2000 graduation

Advising week for winter 2000 registration Veteran's day - no classes
Advance registration - winter, 2000 begins
Last day to remove I grade from spring/summer 1999
Last day to remove N grade from fall 1998
Last day to withdraw with W grade
Thanksgiving - no classes
Last class day
Final examinations
Tuition and fees for winter quarter due
Grades due, 10:00 am

## Winter Quarter 2000

January 3 (Mon)
January 10 (Mon)
January 17 (Mon)
February 1 (Tues)
February 18 (Fri)
February 21-24 (Mon-Th)
February 25 (Fri)
March 1 (Wed)
March 1 (Wed)
March 2 (Th)
March 13 (Mon)
March 14-18 (Tues-Sat)
March 21 (Tues)
March 22 (Wed)
March 27 (Mon)
April 3 (Mon)
April 21 (Fri)
April 22 (Sat)
May 1 (Mon)

All classes begin
Last day to register, add/drop or change grading options
Martin Luther King's birthday - no classes (Sat., Jan. 15 classes will meet as scheduled)
Last day to apply for fall 2000 and winter 2001 graduation
President's Day - no classes (Sat., Feb. 19 classes will meet as scheduled)
Advising week for spring 2000 registration
Advance registration - spring, 2000 begins
Last day to remove I grade from fall, 1999
Last day to remove N grade from winter 1999
Last Day to withdraw with W grade
Last class day
Final examinations
Tuition and fees for spring quarter due
Grades due, 10:00 am
Spring quarter 2000
All classes begin
Last day to register, add/drop or change grading options
Good Friday - no classes
Easter Holiday - no classes
Last day to remove I grade from winter, 2000

May 1 (Mon)
May 15-17 (Mon-Wed)
May 17-22 (Wed-Mon)
May 23-June 2 (Daily)
May 24 (Wed)
May 29 (Mon)
June 5 (Mon)
June 6-10 (Tues-Sat)
June 10 (Sat)
June 11 (Sun)
June 14 (Wed)

Last day to remove N grade from spring 1999
Advising week for summer \& fall 2000 registration
Advance registration, by appointment - summer, 2000
Advance registration, by appointment - fall, 2000
Last day to withdraw with $W$ grade
Memorial Day observed - no classes (Sat., May 27
classes will meet as scheduled)
Last class day
Final examinations
Baccalaureate
Commencement
Grades due, 10:00 am

## Summer Quarter 2000

June 4-26
June 15 (Th)
June 19 (Mon)
June 26 (Mon)
June 27 (Tues)
June 27 (Tue)
June 30 ( Fri )
July 4 (Tues)
July 17 (Mon)
July 24 (Mon)
July 28 (Fri)
August 1 (Tue)
August 5 (Sat)
August 12 (Sat)
August 16 (Wed)
Intersession 2000
August 14 (Mon)
August 21 (Mon)
August 25 (Fri)
September 4 (Mon)
September 11 (Mon)
September 13 (Wed)

Summer 2000 registration resumes (touchtone) Tuition and fees for summer quarter due Classes begin - first and full term Last day, add/drop or change grading options - first 4week, 7 -week and 8 - week terms
Registration continues - second 4 -week term and intersession
Fall, 2000 registration resumes (touchtone) Last day to withdraw - first 4-week term Independence Day observed - no classes Classes begin - second 4 -week term Last day to add/drop or change grading options second 4 -week term
Last day to withdraw - second 4-week; 7-week and 8week terms
Last day to remove N grade - summer, 1999
Last class day - 7 -week term
Last class day - 8 -week term
Grades due, 10:00 a.m.

Classes begin
Last day to register, add/drop or change grading options
Last day to withdraw
Labor day - no classes
Last class day
Grades due, 10:00 a.m.


## Rooms and Auditoriums

1891 Room Bellarmine Hall<br>Campion Ballroom<br>Casey Atrium<br>Chardin Collegium<br>Lynn Collegium<br>McNulty Collegium<br>Paccar Atrium<br>Puget Power Conference Room<br>Schafer Auditorium<br>Stimson Room<br>Vachon Room<br>Wyckoff Auditorium<br>Campion Hall<br>Casey Building<br>Xavier Hall<br>Lynn Building Library<br>Pigott Building<br>Pigott Building Library（first floor） Library（first floor） Fine Arts Building Engineering Building （second floor）

Eastside Education Center
Bellefield Office Park
Conifer Bldg．\＃130
1450 114th Ave SE
Bellevue，WA 98004
（206）451－0200

20 セு Campus Services Building
21 Fine Arts Building
22 ᄂ Student Union Building
$23 \leftharpoonup$ Lynn Building
24 ㄴ Xavier Residence Hall
$25 \downharpoonright$ Engineering Buliding
26 Archbishop Murphy Apartments （under construction－opens mid June 1999）
27 School of Law（under construc－ tion－opens August 1999）

## Parking

SP．Student Parking
FSP Faculty／Staff Parking
VP Visitor Parking
DP Disabled Parking

## Disabled Access Key

$\llcorner$ Accessible entrance and elevator
心它 Accessible entrance to one floor

Note：
Disabled parking spaces located in the visitor parking areas with entrances from 12th Avenue at Marion Street and at Columbia Street provide access to the 11th Avenue and 10th Avenue malls． There is no accessible route of travel to the 10th Avenue mall from the Broadway Parking Garage．；however，two spaces are located in the Library west lot，with an entrance from Broadway at Columbia Street，which provide access to the 10th Avenue mall．

Admissions Office
900 Broadway
Seattle, WA 98122-4340


[^0]:    * Major requirements and must earn a C- grade or better.

[^1]:    * Major requirements must earn a C- grade or better.

[^2]:    * Major requirements and must earn a C - grade or better.

[^3]:    * Major requirements and must earn a C- grade or better.

[^4]:    *Major requirements must earn a C- grade or better.

[^5]:    Hamida H. Bosmajian, PhD (1966)
    Professor of English
    BA, University of Idaho; MA, University of Connecticut; PhD, 1968, University of Connecticut

