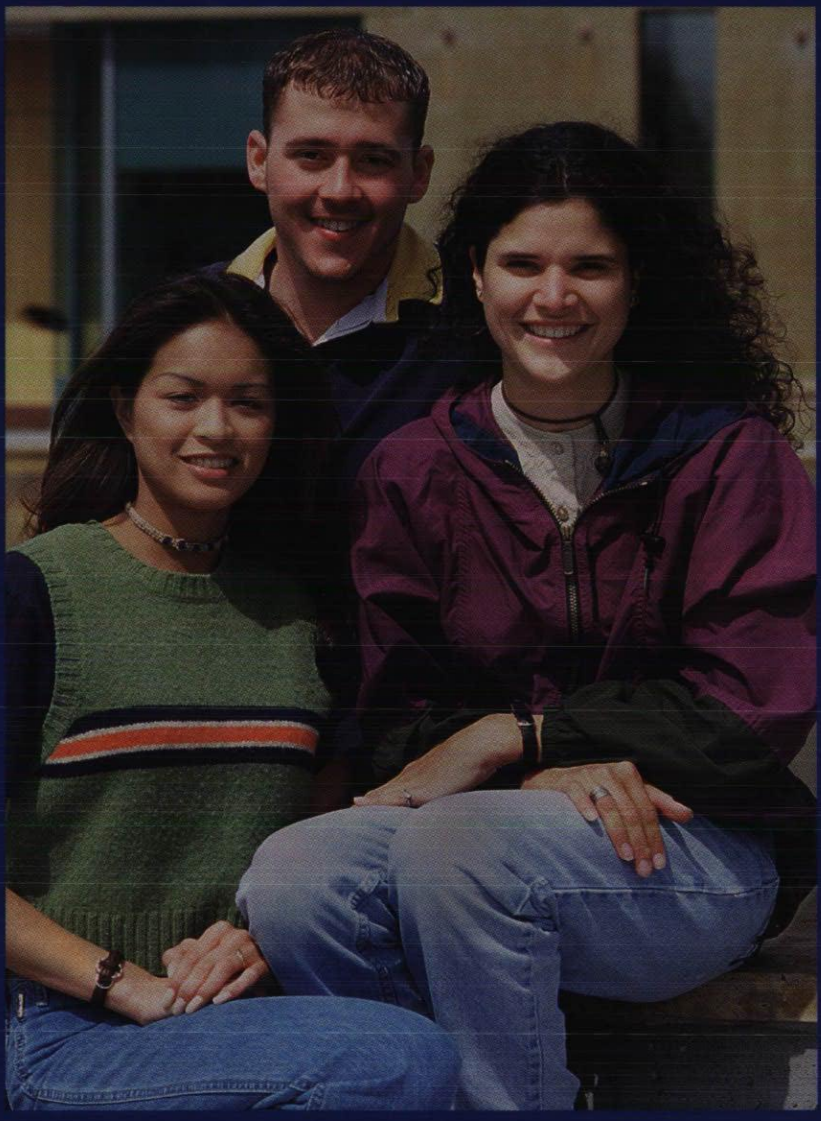
1997

1997-98 Bulletin of Information - Undergraduate

Seattle University

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 more than one calendar year 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 does not discriminate on the basis of religion, race, color, national or ethnic origin, gender or the presence of any sensory, mental or physical disabilities in the administration of its admissions policies and in its scholarship, loan and work study programs.

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
(206) 296-5800

Toll-free within Washington State
(800) 542-0833

Financial Aid Office
(206) 296-5840

Residential Life Office
(206) 296-6274

General Information
(206) 296-6000

www.seattleu.edu
admissions@seattle.edu

Mail
Admissions Office
900 Broadway
Seattle, WA 98122-4340

Seattle University
FOUNDED 1891

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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
- personal growth

As a comprehensive institution of higher learning, Seattle University brings this four-fold purpose to bear on all its activities and programs, on 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.

Growth continued as the first academic or high school-level class was introduced in 1898 and articles of incorporation were filed changing the parish school for boys into Seattle College. These were also years of struggle and disappointment. Nevertheless, 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. In 1909, the first three graduates were awarded bachelor of arts degrees.

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 the School 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.

Curriculum expansion with innovative programs have included 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 operations management was added as an undergraduate business option. The School of Nursing instituted a master of science in nursing in 1992-93 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. The continuing Institute for Catholic Theological Studies (ITS) is expanded to include a new Institute for Ecumenical Studies which begins in fall 1997.

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 departments: Communication/Journalism; 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.

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.

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.

School of Theology and Ministry

Created July 1, 1996, this school includes the on-going Institute of Catholic Theological Studies and is expanded to include a new Institute for Ecumenical Studies which begins fall, 1997.

Graduate Programs

Master's degree programs are available in psychology; business administration, applied economics, international business, and finance; adult education and training, counselor preparation, curriculum and instruction, educational administration, student development administration, and teaching English to speakers of other languages.; clinical nursing; not-for-profit leadership and public administration; software engineering; pastoral studies, transforming spirituality, and divinity. An educational specialist degree is offered in either school psychology or educational administration. A doctorate in education is offered in educational leadership. In addition, post-master's certificates are offered in the Albers School of Business and Economics, the School of Education, and the School of Theology and Ministry.

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. The School of Law will operate in Tacoma until a facility is built for it on the main Seattle University campus by 1999. 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.

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.

The university is accredited by:
Northwest Association of Schools and Colleges
Accreditation Board for Engineering and Technology
American Assembly of Collegiate Schools of Business
American Chemical Society
Association of Theological Schools
Commission on Accreditation of Allied Health Education Programs
(Diagnostic Ultrasound)
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

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 laboratories 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.

Lemieux Library, named after one of the university's most beloved presidents, Albert A. Lemieux, S.J., is the primary academic resource for faculty and students. In addition to a collection of approximately 270,000 volumes and seating for more than 1,000 students, there is an excellent staff dedicated to service. With the library's computer catalog system, students can access information about the collection through public access terminals in the library or through their e-mail accounts. The library also offers on-line access to a wide range of electronic database services.

Admissions, Financial Aid, the Registrar and Controller, Human Resources, Safety and Security, 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 1995 as the new home for the School of Nursing.

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.

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 public-sector 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/Oder, 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 of student development provides the administrative leadership for the student development division and serves as a source of information and assistance for many students.

The **Campus Assistance Center** is a one-stop information, resource, and referral service available for all students.

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 Catholic Christian 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 and information nights to help students meet with employers of interest. Open to all students and alumni, career development services include:

- personal career counseling
- workshops on career-planning skills
- job fairs and career nights
- computerized career exploration
- 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**, located in the Student Union Building, includes the Associated Students of Seattle University (ASSU), the Campus Assistance Center, clubs and organizations, the Educational Programs Committee (EPC), and Event Planning.

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 a comprehensive program offered during the fall, winter, and spring quarters for non-native speakers of English. It focuses on the development of all phases of language literacy, speaking, listening, writing, and reading. Additionally, it is specifically designed to help international students and non-native speakers of English to overcome cultural barriers that prevent them from full participation in the Seattle University experience. The program includes both a freshman and transfer section. (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 physical, learning and other 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.

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 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 **Learning Center** provides academic support and study-skill enhancement to all Seattle University students. Experienced staff take time to explore with students specific

academic needs. The Learning Center can provide tutors, assessments of learning styles, study strategies, and 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. Its programs include Black History Month, Asian Pacific Islander Heritage Month, Dr. Martin Luther King Jr. Week, Cinco de Mayo, the Chief Sealth Pow Wow, and Our Lady of Guadalupe Celebration.

The **New Student Programs Office** sponsors orientation programs each summer and fall to facilitate the social and academic adjustment of new freshmen and transfer students. Orientation is also held during winter and spring quarters.

Pathways is a unique program which provides a place for students to come together to integrate their out-of-class experiences, to reflect on their own learning at the university, and to develop personal and leadership skills. Core programs include discovery groups (small groups of students led by students) which provide opportunities for connection, community, and involvement. Pathways also sponsors campus-wide activities to celebrate students, including Art Fest, New and Graduating Student Speak Outs, Student Recognition Awards, and quarterly kick-off celebrations. Pathways is open to all students.

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 registered clubs and organizations is available at the Center for Event Planning and Student Activities. Various opportunities include, but are not limited to: service clubs, scholastic honoraries, preprofessional 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.

The **Student Union Building (SUB)** is a hub for campus activities and is home to the Associated Students of Seattle University (ASSU), the Spectator (student newspaper), KSUB (student radio station), Student Development administrative offices, the Chieftain dining area, games room, commuter student services, and student lounges. Also located in the SUB are the Campus Assistance Center, the Center for Event Planning and Student Activities, New Student Programs, Pathways, Wellness and Prevention, and the Volunteer Center.

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, soda, and a variety of muffins, donuts and chips.

University Sports offers opportunities for students of all ages and skill levels. Seattle University is a member of the Northwest Conference of Independent Colleges (NCIC). The university competes in soccer, basketball, tennis, cross country, skiing and swimming for

men and women, as well as women's softball and men's golf. 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 gymnatium 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 six tennis courts and a two-field complex for soccer, flag football, volleyball, softball, and jogging.

The **Volunteer Center** is the place where you can check out volunteering in the community with children and youth, elders, refugees, people who are homeless, and many others who welcome your presence. Choose from more than 200 volunteer opportunities, or join with your friends or club in a variety of group projects. The center is in the Student Union Building, suite 207.

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. 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 Life

Residence Requirement

Seattle University requires full-time freshman students under 21 to live in university residence halls unless they are married, living with parents, or have been granted an advance waiver by the director of Residential Life for extraordinary circumstances.

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 professional staff person (residence hall director), and one faculty or staff moderator on each floor.

For more information about Residential Life, visit the Residential Life 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 Life. 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 Life 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 job-placement 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 **Patricia Wismer Center for Women** provides support for women, expertise on women's issues, and educational programming for the entire Seattle University community. In particular, the center focuses on the growth of women within the spirit and direction of the university's mission. It is housed in Loyola Hall and provides space for women to gather and network, serving as an information clearing house on activities and resources available to women. In connection with its educational mission, the center provides forums, films, discussion groups, and speakers. The center is primarily staffed by volunteer effort.

Safety and Security Services 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 admission. 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 Washington state and federal agencies.

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
- two units of mathematics (three are preferred)
- two units of social science/history

- one unit of laboratory science (three are preferred)
- two units of a foreign language
- five **approved** academic electives

A **minimum** of two units of laboratory science and three of mathematics are required for admission to the Schools of Nursing and Science and Engineering.

The College of Arts and Sciences requires completion of one full year of a specific 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 3.0 and 3.7 (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 one letter of recommendation from a teacher and a school counselor (three are recommended). Personal statements or essays are also required and are carefully considered during application review.

Applications

Application forms can be obtained by contacting Undergraduate Programs, Admissions Office, Seattle University, Seattle, WA 98122-4460.

Freshman Admission Procedures and Timetable

Financial Aid

Often the college application process begins 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 funds which may remain. When completing the application please remember to list that Seattle University receive this information. See Financial Aid section which follows for more information.

Freshman Admission

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

- An official high school transcript
- Official ACT or SAT I score reports (these will be accepted if recorded on your official secondary school transcript)
- Letter of recommendation from school counselor or teacher
- Non-refundable $45 application fee

Permanent resident aliens must also submit a photocopy of the front and back of their alien registration cards.

The recommended deadline for priority consideration for fall quarter admission is February 1.

Personal statements or essays are required and will be considered carefully during application review.

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 high school students should apply for admission 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 grades, 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. Typically an admissions interview is 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 their community college transcripts as well as their 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 less than 45 credits; and, b) students attending college for the first time or who have less than 20 credits, regardless of when they graduated from high school.

Freshmen transfers are considered to be students who have graduated in any year besides 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. 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 a 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 cannot fill major requirements in many departments unless graded C or higher.
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 Achievement Test I (SAT) verbal scores of 450 or higher.

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 a maximum of two quarters. Students must be in good standing at recognized colleges or universities and meet Seattle University admission standards. As they are not matriculated, these students do not qualify for financial aid or academic counseling.

By special arrangement, superior secondary school students may be admitted to specific courses as non-matriculated students.

Credit is awarded for successful completion of courses taken by non-matriculated students. Such credit may be applied toward a degree, however, only after application and acceptance to a degree program.

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 1996 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 97-98 academic year, must submit the FAFSA no later than March 15, 1998. (Be advised that those student's submitting data after Feb. 1, 1997 will be considered on a funds available basis).

To receive financial aid funding, 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 insure 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	April 15	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 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 $4800 to $10,500. Scholarships are renewable provided the student maintains Satisfactory Academic Progress as defined later in this text.

Transfer Trustee 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 for the 1997-98 academic year will range from $4,000 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 1997-98 academic year the award will be $5000. 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 equal to $5,000 per year. 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 1997-98 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 $3000 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 off-campus 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 $1500 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. Federal regulations require that disbursements to first time freshmen be delayed for 30 days from the first day of the term, for the first term of attendance.

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.

There are numerous **Alternative Loan Programs** available to students and parents desiring to borrow money beyond the federal programs. Generally, loans are unsecured and have low interest rates. For details, contact 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 as defined in this document. Satisfactory academic progress 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 maintaining 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 determines the minimum number of credits that the student must complete. 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

- Half-time status is applicable for the Federal Pell Grant Program only.
- Direct Stafford Loan borrowers who drop below half-time enrollment status at any time will have their remaining loan canceled. They will need to re-apply for the following quarters if additional loan funds are desired.
- Alaska State Loan borrowers must successfully complete 12 credits per quarter.
- Incompletes, withdrawals, failed classes and audits do not count as complete, earned credits.

Minimum Grade Point Average

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

Maximum Time Frame

Students must complete their degree requirements within a reasonable and normal period of time. Students are eligible to receive financial aid until they have 1) attempted a maximum of 225 credit hours, or 2) completed all the course work to receive their degree. Students must complete degree requirements within a reasonable and normal period of time. Undergraduate students may receive institutional grants for the purpose of completing one undergraduate 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. Incompletes, 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.

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 percent 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.

Academic Scholarship Requirements

UNDERGRADUATE ACADEMIC SCHOLARSHIP COMPLETION REQUIREMENTS

Enrollment Status	Minimum per Quarter	Minimum per Year
Full-Time	15 credits	45 credits

- Students receiving Seattle University academic scholarships including the Sullivan Leadership Award, Presidential, Trustees, and Ignatian must complete a total of 45 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.

Minimum Grade Point Average

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.

Maximum Time Frame

Students must complete their degree requirements within a reasonable and normal period of time. Students who receive the Sullivan Leadership Award, Presidential, Trustees, 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 a bachelor's degree.

Transfer Trustee Scholarship recipients have three years following their entry term to complete all course work to receive their degree.

Graduate/Professional Students

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

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.

Minimum Credit Requirement

GRADUATE NEED-BASED CREDIT COMPLETION REQUIREMENTS

Enrollment Status	Minimum per Quarter	Minimum per Year
Full-Time	8	24
3/4 Time	5	15
1/2 Time	3	9

- Direct 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.

- Incompletes, 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.

Maximum Time Frame

Graduate/Professional students must complete their degree requirements within a reasonable and normal period of time. Students are eligible to receive financial aid until they have 1) attempted a maximum of 150 percent 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. Incompletes, 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:

- 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.

- 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 & 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.

- The student may choose to attend the summer quarter (without financial aid) immediately following the academic year in which the student did not meet satisfactory progress requirements. (Students may receive Federal or State Work Study only during this term).

  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.

- Any student who has reached the limit of the maximum time frame and needs additional time to complete the 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 within the time allotted and what additional time is needed to complete the degree. The student must attach documentation from his/her adviser that substantiates the appeal.

Please Note: Financial Aid reinstatement awards are based on available funds. Therefore, if reinstated, students 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 1997-98

Regular Courses (fall, winter, spring) ..... $329 per credit hour

Full-Time Student Annual Tuition $14,805
45 credit hours per year (15 credit hours per quarter). Additional credits will be extra.

Addiction/Drug Studies Certificate ..... $329 per credit hour
Culture and Language Bridge (CLB) ..... $292 per credit hour
Military Science 311, 312, 313, 412, 413, 419 ... $329 per credit hour
Auditors Tuition ..... $104 per credit hour

A tuition prepayment of $200 is required of all new undergraduate students admitted for fall quarter. This prepayment will apply toward tuition and is not refundable if the student decides after May 1 not to enroll at the university.

Laboratory Fees 1997-98 (usually per course)

Education 460 ..... $50
Nursing 200 ..... $50
Nursing 302, 303, 319, 329, 339, 349, 411, 413, 423 (per credit hour) $30
Nursing 385 ..... $130
Private Music Lessons $70
Psychology 304, 306 ..... $65
Science and Engineering Laboratory Courses $65

Other Fees (non-refundable) 1997-98

Graduate application — includes post-baccalaureate and non-matriculated $55
Undergraduate application — includes post-baccalaureate and non-matriculated $45
Credit by Examination — per credit hour $70
Identification Card — Loss/Replacement $25
Late Payment (see details later in this section) $200
Matriculation — undergraduate and graduate $70
Official Transcript — Same day service request $25
Removal of Incomplete — per course $40
Validation of Field Experience — per credit hour $70

Graduate tuition and fee rates are published in the *Graduate Bulletin of Information.*

Residence Charges 1997-98

Room Rates:	Qtr	Academic Yr
Double Occupancy	$1190	$3570
Single Occupancy	$1599	$4797
Board Plans:		
Plan A	$641	$1923
Plan B	$543	$1629
Plan C	$442	$1326

All residence hall students, except those living in Campion, are required to purchase a plan. Campion students can use existing kitchen facilities and may choose not to purchase a plan. For additional information contact the director of Residential Life (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; and 8:30 a.m. to 4:30 p.m., Wednesday through Friday.

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

Tuition and fees are due and payable on or before:

Fall quarter	September 15
Winter quarter	December 15
Spring quarter	March 23
Summer quarter	June 15

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#/Social Security# 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 8:30 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 8:30 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 9/15/97.)

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 8:30 a.m. and 4:30 p.m. (Mon.-Fri).

Late Payment

A late fee of $200 (one time per term) and interest of 1% per month on any balance due will be applied if:

1. Pending financial aid is not sufficient to cover the outstanding charges on the account, and/or
2. Payment or payment arrangements 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

Firm deadlines for official withdrawal (full or partial).*

1st thru 8th calendar day	100 percent
9th thru 15th calendar day	80 percent
16th thru 22nd calendar day	70 percent
23rd thru 29th calendar day	60 percent
30th thru 36th calendar day	50 percent
37th thru 43rd calendar day	40 percent
Thereafter	No refund

* See the quarterly schedule of classes for specific dates.

(This schedule applies to both institutional and Title IV funds)

Refunds are based on the number of calendar days from the first class day of the term until the official date of withdrawal or reduction in class 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 7/1/96 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 Regulations

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 on page 9 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.

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.

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.

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.

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. Summer quarter extends from 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

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 at the time the schedule of classes is printed and will be designated in the schedule. 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 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. 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, 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.

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 admitted for a specific advanced certificate.

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 students to seek written permission 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 or already has been registered.
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 graduates of hospital diploma programs 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.
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)

The grades of CR, HW, I, 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.

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 the ordinary tuition refund policies apply.

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	Must be Removed Before
Fall term	March 1
Winter term	May 1
Spring and Summer terms	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.

M—Missing

Symbol used on grade reports to inform student that a grade has not been received from instructor or on the academic transcript to indicate work in progress.

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 one calendar year of the quarter the grade is assigned, 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	Must be Removed Before
Summer term	August 1 of the following calendar year
Fall term	November 15 of the following calendar year
Winter term	March 1 of the following calendar year
Spring term	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. 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 500-699.

YW—Audit Withdrawal
Student registered as an auditor but did not attend through end of course.

Z—Unofficial Withdrawal
Grade assigned by the registrar based upon the tenth day class rosters as returned by the faculty when a student has registered for a course, has never attended, and has not officially withdrawn according to university policy. The 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 P/F only during the drop/add period.
2. Ten quarter credits graded P/F, regardless of number of courses, is the maximum acceptable toward a bachelor's degree.
3. The P/F grading option is not allowed for major or college requirements or university core. Should the student elect a course P/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 P/F course may be selected in a given quarter.
5. No graduate courses (500-699) are open to P/F grading.

Courses elected as P/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.

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

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.

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 content and/or for credit 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.

The student must notify the registrar of the repeat by filing a notification of repeated course form. 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 departmental requirements in the Schools of Business and Economics, 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 departmental 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 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 Washington community college will bring certain benefits to the student who has completed the degree prior to first admission to 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 request a transfer verification form from the registrar prior to attendance to assure that the courses will be transferable.

Withdrawal

(Policy 75-22)

The Registrar's Office 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 the ordinary tuition refund policies apply.

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

(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 October 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 civil and electrical engineering degrees, which require a minimum of 192 credits.
3. A minimum of 15 credits in philosophy 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.
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 or the new college. These 45 credits must be completed in residence at Seattle University.

   To satisfy core requirements, second degree students 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)

Undergraduate students who have not completed their degree requirements may participate in commencement exercises under the following conditions:

1. Undergraduates who have 10 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 may not participate in commencement exercises unless all requirements have been completed.
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, asterisks 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 degree. Since the student's entire academic program, upon which honors are determined, has not been completed, 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

(Policies 75-12 and 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

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.

The Core Curriculum

David Leigh, SJ, PhD, Director

"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
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
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
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
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 Literature
and

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 block during the winter and spring quarters of the freshman year. (Students in the School of Science and Engineering may take this sequence in spring of the first year and fall of the second year).

Please Note: Students in the College of Arts and Sciences must take HIST 120 for core and may select 121 or 231 to fill the additional college history requirement.

Mathematics **5**

Any five-credit course in mathematics on the 100 level (or above) for which the student is qualified.

Science **5**

Any five-credit laboratory science course for which the student is qualified (physics, chemistry, biology, or general science, but not computer science).

Fine Arts **5**

FINR 120 or approved fine arts alternate: ART 100, 120, 211, 212; DRMA 211, 212, 250, 260; MUSC 201, 211 or 212

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 II **5**

Choose any five-credit course from among the following courses, as long as the discipline chosen 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
PSYC 220 Individual and Society
SOCL 210 American Society and Culture
SOCL 222 Social Psychology

Students who major in one of the social science disciplines must take both the required core curriculum social science courses outside of their major department.

Theology and Religious Studies Phase II 5
Any approved five-credit course selected from TRST 200-299.

Phase Three
Responsibility and Service

Ethics 5
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

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 multidisciplinary perspective. A list of approved interdisciplinary courses will be published in the quarterly schedule of classes and will usually be numbered 480.

Senior Synthesis 3
A course or project of at least three credits approved by the student's major department and the core director as fulfilling the objectives of the senior synthesis requirement.

The two sequences in Phase One must normally be completed before taking courses in Phase 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 permission of the dean of the College of Arts and Sciences or the director of the university core curriculum.

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 upper-division ethics.

Transfer Students with Junior Standing

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

I. 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. Bridge Courses

To be taken only at Seattle University:

PHIL 210	Philosophy of the Human Person	5
TRST	Elective 200-level	5

Consult philosophy and theology departmental descriptions for specific requirements for entering other courses.

III. Essential Phase Three Courses

To be taken only at Seattle University:

Ethics	5
Interdisciplinary Course	3 to 5
Senior Synthesis	3

Consult each major for specific guidelines for courses that fulfill these essential Phase Three requirements. Each quarterly schedule of classes will indicate interdisciplinary courses, usually numbered 480 to 484, and senior synthesis offerings, numbered 487 through 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

Stephen C. Rowan, PhD, Dean
Susan Secker, Associate 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 comprises 18 administrative subdivisions, of which 12 are departments in specific academic subjects. The departments are Communication; English; Fine, Applied, and Performing 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. An additional requirement of a second five-credit course in history chosen from either HIST 121 or HIST 231 is also required of all students.

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. It is strongly recommended that students fulfill this program requirement as early as possible in their studies, preferably in their first year.

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:

Choose one of the following two courses 3

ADST 480	Introduction to Alcohol and Drug Addiction
PSYC 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.

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 **2**
Instruction and supervised practice in techniques of special value in counseling alcoholics and other drug addicts. Videotape equipment used. Prerequisite: ADST 400, 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, record-keeping and confidentiality. Prerequisite: ADST 402.

ADST 417 Employee Assistance Programs **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 402.

ADST 426 Addiction and Mental Illness **2**
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 **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 intra-professional relationships. Cooperation with A.A., other twelve-step groups. Prerequisite: ADST 480.

ADST 429 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 students with sufficient academic background to pursue independent study. Prerequisite: Permission of Director.

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 must complete a bachelor's degree prior to beginning the teacher preparation program. They should discuss their major with their communication adviser to ensure that they are enrolled in the appropriate courses. A 24-credit second endorsement is available in journalism or speech. Students planning to become teachers must contact the School of Education for advising.

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	101 or 107 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.

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 communication with a specialization in journalism, 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 101 or 107 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.

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, audit, or correspondence 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 Program 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 Communication
- CMJR 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 communication with a specialization in public relations, 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 101 or 107 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.

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 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 Writing
CMJR 320 Persuasive Writing

Choose one of the following two courses: 5
CMJR 330 Introduction to Graphic Communication
CMJR 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

Minor in Journalism/Mass Communication

In order to earn a minor in journalism/mass communication, students must complete 30 credits in communication, including:

CMJR 205	Messages in Action	5
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 on audiences in a variey of media, including speeches, newspapers, conversations, advertisements, essays, television, film, and web. Students develop skills of critical interpretation and evaluation through close reading of messages. Assignments include a major rhetorical criticism 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 and dialogue to effectively convey news and information; targeting stories for media audiences; writing with computers and on deadline; basic information gathering, using interviewing and 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, source development, and coverage of beats. Prerequisite: CMJR 210 and permission. (Previously titled Writing for Journalism)

CMJR 225 Dynamics of Communication **5**

Theoretical approaches to understanding the process of communication as it occurs in both interpersonal and media settings. Emphasis on research approaches and concepts from both social science and interpretive perspectives. (Formerly CMJR 201)

CMJR 230 Public Speaking **5**
Theory and practice of constructing, presenting, and analyzing speeches. Emphasis on audience adaptation and the development of critical listening skills. Performance-oriented course. Departmental permission required.

CMJR 240 Introduction to Photography **5**
Introduction 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 of adjustable 35 mm camera. Lab fee.

CMJR 245 Media, Society and Individual **5**
Contemporary problems and issues in communication, such as the effect of technology now and in the past, establishing credibility, ethical concerns about violence and gender or racial 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 **1**
Supervised 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
Using interview, document, survey, and computer-assisted information-gathering techniques, including relational databases, to conduct research for journalism, public relations or other related professions. Prerequisite: CMJR 220 or permission. (Previously titled Reporting Public Affairs.)

CMJR 305 Broadcast Writing **5**
Techniques of writing news and features for the electronic media. Writing for sound and pictures. Broadcast media style considerations. Prerequisite: CMJR 220 and permission.

CMJR 310 Public Relations Writing **5**
Writing 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-fiction narrative 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 Persuasive and Critical Writing **5**
Principles of persuasive writing for a media audience; constructing editorials, opinion columns, and critical reviews; study of classical and contemporary models. Prerequisite: CMJR 220 or permission.

CMJR 330 Introduction to Graphic Communication **5**
Fundamentals of visual literacy and communication in the print and web media. Using computer-assisted graphic design to communicate ideas and information to audiences. Junior or senior standing.

CMJR 332 Advanced Graphic Communication **5**
Advanced techniques of visual communication in the printed and/or interactive mass media. Specific ethical considerations in creating and using visual imagery. Prerequisite: CMJR 330.

CMJR 335 Introduction to Video Communication **5**
Fundamentals of visual literacy and communication in the electronic media, particularly video. Emphasis on the reporting, scripting, voicing and editing of text and visuals for stories meant to inform audiences. Prerequisite: CMJR 305 or permission. (Previously titled Production and Editing: Electronic Media)

CMJR 337 Advanced Video Communication **5**
Advanced techniques communicating in the electronic media, particularly through video. Emphasis on text and visuals for stories meant to inform or persuade audiences. Specific ethical considerations in using the medium are discussed. Prerequisite: CMJR 335

CMJR 340 Advanced Photography **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 **5**
The 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. (formerly CMJR 260)

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. (formerly CMJR 361/362)

CMJR 370 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 **1**
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 **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 **5**
Theory 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, cross-cultural 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. (Previously CMJR 360.)

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**
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 **5**
Examination 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. (Previously titled Images and Choices)

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 5**
By permission only. See department for guidelines.

CMJR 496 Independent Study **1 to 5**
By 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	101 or 107 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 of approved 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 35 credits in criminal justice, including the following:

CRJS 110 Introduction to Criminal Justice 5
CRJS 209 Criminological Theory 5
CRJS 300 Society and Justice 5
CRJS Electives 20

(A maximum of 5 credits in electives may be taken in courses chosen from the list of approved 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 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 permission of instructor. (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 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 **5**
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 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 Feminist and Multicultural Criminology **5**
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 **5**
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 **3 to 5**

CRJS 491 Special Topics **1 to 5**
CRJS 492 Special Topics **1 to 5**
CRJS 493 Special Topics **1 to 5**

CRJS 495 Internship **5**
Direct observation, supervised practical experience, and academic study in a selected law enforcement agency or organization in the criminal justice system. CR/F grading mandatory. 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 304 Black Power in American Society
PLSC 306 Native American Politics and Protest
PLSC 321 Constitutional Law
PLSC 322 The Supreme Court and the Bill of Rights
PLSC 378 Planning, Budgeting, and Information
SOCL 316 Social Inequality
SOCL 317 Race & Ethnic Relations
SOCL 318 Gender Roles and Sexuality
SOCL 333 Sociology/Anthropology of Law
SOCL 424 Sociology of Mental Illness

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

David J. Leigh, SJ, PhD, Chair

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
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 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 planning to teach at the elementary or secondary school level must complete a bachelor's degree prior to beginning the teacher preparation program. For further information, contact the School of Education.

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, non-fiction, 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-in-residence from the Northwest.

The broader learning environment of the creative writing program includes weekend workshops, internships, a public Writers Reading Series and annual Writers' Conference, 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	101 or 107 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 credits in English, including:
ENGL 255 Literary Studies I 5
ENGL 256 Literary Studies II 5
ENGL 257 Literary Studies III 5
Choose one directed elective from each of these areas:
Biblical/Classical or World 5
Medieval/Renaissance 5
18th/19th Century Studies 5

English Electives (300-level or above) 20
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 101 or 107 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

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:

Fifty-five credits in English, including:
ENGL 255 Literary Studies I 5
ENGL 256 Literary Studies II 5

Choose one of the following two courses 5
ENGL 257 Literary Studies III
ENGL 258 Creative Writing

Choose literature electives from at least two of these three areas
(300-400 level): 10
Biblical/ Classical and World
Medieval/Renaissance
18th/19th Century Studies

Choose English literature elective (300-400 level) 5

Choose creative writing courses in at least three genres
(300-400 level) 25
Fiction (ENGL 305, ENGL 318, ENGL 402)
Poetry (ENGL 316, ENGL 403)
Non-fiction (ENGL 304, ENGL 414)
Drama/Film (ENGL 404, 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
ENGL 255	Literary Studies I	5
ENGL 256	Literary Studies II	5
English Electives (300 to 400-level)		15

Please Note: Students who have completed the six literature courses in the honors program may complete the minor with one additional upper division English course of five credits. See policy for minors on p. 43.

Minor in English/Creative Writing

In order to earn a minor in English/Creative Writing, students must complete 35 credits in English, including:

ENGL 110	Freshman English	5
ENGL 120	Masterpieces of Literature	5
ENGL 255	Literary Studies I	5
ENGL 256	Literary Studies II	5
Creative Writing electives in at least two genres (300 to 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 World
Co	Core
E	18th/19th Century Studies
L	Language
MR	Medieval/Renaissance
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 Literature **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 255 Literary Studies 1: The Writer, the Reader and the Text **5**
ENGL 256 Literary Studies 2: Texts in Context **5**
ENGL 257 Literary Studies 3: Studies in Intertextuality **5**
The following integrated, three-quarter sequence, required of English majors, develops the skills of literary analysis and interpretation of a variety of texts from different literary periods. In addition to teaching close reading of texts, the sequence raises theoretical questions about writers, readers, texts, and contexts. A primary aim of the sequence is to develop students' ability to become independent inquirers and interpreters of texts, both orally and in writing.

ENGL 255 Literary Studies 1: The Writer, the Reader, and the Text
Explores the writer's choice of formal features that shape the text and create a reader response. Students will develop the skills of analysis and interpretation through close readings of texts and communicate their insights in class discussion and writing assignments, which will include a formal analytical-interpretive essay.

ENGL 256 Literary Studies 2: Texts in Context
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.

ENGL 257 Literary Studies 3: Studies in Intertextuality
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.

ENGL 258 Creative Writing **5**
Introduction to literary vocabulary and techniques of imaginative writing, with an emphasis on figurative language, point of view, and structure. Includes a craft-focused study of models in three genres. W

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

ENGL 305 Writing Fiction **5**
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 **5**
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 **5**
The 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 **5**
A 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 Literature 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. MR

ENGL 328 Chaucer **5**
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. MR

ENGL 330 Shakespeare **5**
A study of selected plays and sonnets of Shakespeare with special attention to his craft as a playwright and to contemporary approaches of criticism.MR

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. MR

ENGL 335 17th Century Literature: The Rhetoric and Poetics of Modern Revolutions **5**
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. MR

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. E

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. E

ENGL 343 The 19th Century English Novel **5**
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. E

ENGL 346 Literary Realism **5**
Readings in the Realistic movement. Selections will vary but may include such authors as Twain, James, Flaubert, Tolstoy, Balzac, and Zola. E

ENGL 349 Late 19th Century Literature **5**
A study of 19th 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. E

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 Ibsen, Shaw, Wilde, Chekhov, O'Neill, Pirandello, and Williams.

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.

ENGL 360 World Literature **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. BC

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. BC

ENGL 362 African Literature **5**
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. BC

ENGL 364 Post-Colonial Literature **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. BC

ENGL 369 Latin American Literature **5**
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. BC

ENGL 371 American Literature to 1865 **5**
A study of first encounter authors such as Columbus and Smith, of colonial writers such as Franklin, and of post-revolutionary authors such as Poe, Hawthorne, Melville, and Dickinson. Attention will be given to ethnic writers and to major historical and literary trends. A

ENGL 372 American Literature Since 1865 **5**
A study of turn-of-the-century writers such as Clemens, James, and Wharton; of between-the-wars authors such as Hemingway, Hughes, Faulkner, and Eliot, and of more recent writers. Attention will be given to ethnic writers and to major historical and literary trends. A

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. A

ENGL 383 20th Century American Literature **5**
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. 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.

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, O'Casey, and Synge will be studied.

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. BC

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 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 **5**
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. BC

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,
- 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

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.

Teacher Education

The teacher preparation program is a graduate-level program only. Students planning to become elementary teachers or secondary art or drama teachers must first complete a bachelor's degree and must contact the School of Education for advising. Second endorsements are also available in art and drama.

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 (visual art, drama, or music) 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	101 or 107 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 credits in an area of emphasis — drama, music, or visual art.

Drama Emphasis:
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:
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

Visual Art Emphasis:
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 330 Relief Printmaking or ART 331 Monotype Printmaking
ART 220 Drawing II
ART 240 Painting I
ART 250 Sculpture I

In addition to the emphasis courses selected choose 30 credits in any combination from drama, music, visual art in consultation with the student's adviser (10 of these credits must be from a discipline other than the area of emphasis and 10 must be taken at the 300-400 level) 30

Fine Arts majors must also take their senior synthesis in a fine arts course which satisfies the core senior synthesis requirement.

Bachelor of Arts
Major in Visual Art

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	101 or 107 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

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 101 or 107 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 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 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 and production 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

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

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

See policy for minors on p. 43.

Minor in Theatre Production

In order to earn a minor in theatre production, students must complete 30 credits in drama, including:

DRMA 110	Stage Mechanics	2
DRMA 260	Design and Technical Theatre I	5
DRMA 360	Design and Technical Theatre 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	13

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

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

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 Drawing I 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 211 Survey of Western Art I: Prehistoric through Medieval 5
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: Renaissance through Modern 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 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 Sculpture I 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 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 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 Chin-Collé, embossing, multiple overlays and color printing processes. Prerequisite: ART 100 or ART 120.

ART 340 Painting II 5
Continued study of principles and processes of painting while analyzing the theory and 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 Sculpture II 5
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 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 Senior Thesis and Exhibit 3-5
Individual 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 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 1-5
Prerequisites: art majors with senior standing only.

Drama Courses

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 **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.

DRMA 291 Special Topics **1-5**
DRMA 292 Special Topics **1-5**
DRMA 293 Special Topics **1-5**

DRMA 340 Movement **2**
Aspects of theatrical movement. Each quarter one specific form will be studied, for example: stage combat, period movement, dance. May be repeated in different subject areas for a maximum of 6 credits.

DRMA 350 Acting II **5**
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 1-5
Participation in university drama productions. Prerequisite: permission of instructor.

DRMA 404 Playwriting 5
Creative writing for performance. Includes development, structure, and editing. Prerequisite: permission of instructor.

DRMA 415 Auditioning 2
The theory and practice of auditioning. Various situations and how to handle them. Preparing and performing audition pieces. Prerequisite: permission of instructor. Offered every other year.

DRMA 420 Directing 3
Theory and practice in the form and method of script construction. Offered every other year. Prerequisite: permission of instructor.

DRMA 430 Puppetry 5
The art and craft of puppetry: design, construction, manipulation, character development, scripting, performance. Includes historical and cultural perspectives. Prerequisite: permission of instructor.

DRMA 450 Advanced Acting 3
Acting 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 and Technical 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 the community. 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 1-5
Prerequisites: Drama majors with senior standing only.

Music Courses

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 *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 off-campus 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 *1
MUSC 141 Beginning Guitar Class *1
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 300 Comprehensive Musicianship II **5**
An expansion of the techniques learned in MUSC 200. Prerequisite: MUSC 200 or permission of instructor. Offered every other year.

MUSC 310 Piano Lessons ***1-2**
Mandatory CR/F. Maximum 12 credits. Prerequisite: MUSC 110 or permission of instructor.

MUSC 311 Voice Lessons ***1-2**
Mandatory CR/F. Maximum 12 credits. Prerequisite: MUSC 111 or permission of instructor.

MUSC 319 Wind Instrument Lessons ***1-2**
Mandatory CR/F. Maximum 12 credits. Prerequisite: MUSC 119 or permission of instructor.

MUSC 323 Guitar Lessons ***1-2**
Mandatory CR/F. Maximum 12 credits. Prerequisite: MUSC 123 or permission of instructor.

MUSC 330 University Chorale II ***1**
An 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 ***1**
An 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 the community. 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 **1-5**
Prerequisites: 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 some languages 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 French-in-France in Grenoble, France. In order to be eligible for the program in 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 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 studies 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 will also be 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

Those students planning to become elementary or secondary foreign language teachers should major in one of the following languages: French, Spanish, or German Area Studies. A 24-credit second endorsement is also available in each of these languages. Students planning to become teachers must contact the School of Education for advising.

Bachelor of Arts Major in French

In order to earn the bachelor of arts degree with a major in French, 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	101 or 107 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-credit requirement by substituting approved courses in other disciplines that relate to their foreign language studies or by taking courses in another language.

Bachelor of Arts
Major in German Area Studies

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	101 or 107 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 eight 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 non-German (GERM) designated courses used in the major, 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/Oder beyond the seven course minor can be considered as optional electives for this degree program as can approved courses completed at Karl Franzen Universitat in Graz, Austria under the terms of the reciprocal exchange program.

Bachelor of Arts
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	101 or 107 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-credit requirement by substituting approved courses in other disciplines that relate to their foreign language 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
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 5

An introduction to French culture and civilization with emphasis on the basic traditions and structures of French society.

FREN 325 Introduction to French Literature 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 17th 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 **5**
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 **5**
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 **1 to 5**
JPAN 292 Special Topics **1 to 5**
JPAN 293 Special Topics **1 to 5**

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. These courses constitute a systematic, programmed study of the Spanish language and culture. All of 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 and societies. With a socio-historical approach, strong emphasis is placed on cross-cultural differences and contemporary customs and lifestyles.

SPAN 325 Introduction to Latin American and Spanish Literature **5**

An introduction to literary and critical analysis, with readings from Latin American and Spanish authors. This course also provides the student with a theoretical, historical, and cultural 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 **5**
A study of the life and works of Miguel de Cervantes with special attention to *Don Quijote de la Mancha*.

SPAN 416 Latin American and Spanish Literature and Culture, 19th Century **5**
A study of 19th Century literary movements in Latin America and Spain. An historical approach to major works in Spanish.

SPAN 420 Literature and Revolution **5**
The impact of social, political, and cultural revolutions upon the literary works of Latin American writers such as Alejo Carpentier, Arturo Uslar Pietri, Carlos Fuentes, Julio Cortazar, Mariano Azuela, and Omar Cabezas.

SPAN 426 Latin American Literature and Culture, 20th Century **5**
A study of 20th Century Latin American literary movements; from the creative work of the "Novela del campo"—Gallegos, Rivera, Guiraldes—through the innovative expression of the "Vanguardia"—Asturias, Borges, Carpentier, Neruda, Rulfo, Vallejo, and the explosion of "Realismo Magico"—Marquez, Cortazar, Fuentes, Vargas Llosa, to present works.

SPAN 450 Methodology of Teaching Spanish **5**
An overview of the various methods and approaches being used to teach Spanish.

SPAN 463 Contemporary Spanish Literature and Culture **5**
Spanish 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 103 includes 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 **5**
Intensive study of grammar with elementary reading and composition. Latin 103 includes selections 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 5**
Title 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**
Department permission required.

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 planning to become elementary teachers or secondary history or social studies teachers must complete a bachelor's degree prior to beginning the teacher preparation program. They should discuss their major with their history adviser to ensure that they are enrolled in the appropriate courses and must contact the School of Education for advising. Second endorsements are available in history (24 credits) and social studies (45 credits).

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
MATH	101 or 107 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

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.

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: 5

HIST 121	Studies in Modern Civilization
HIST 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 **5**
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 **5**
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 **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 **5**
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 5
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 5
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 5
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 5
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 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 5
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 **5**
Past development and present problems of the states comprising the Pacific Northwest, with emphasis on Washington state.

HIST 342 United States 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 **5**
Social and intellectual history of the United States, with emphasis on the 19th and 20th centuries.

HIST 349 Contemporary U.S. Since 1945 **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.

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.

HIST 420 Hitler and the Holocaust
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 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 '60s and the terrorism of the '70s and '80s. 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 application to Seattle University, 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. Students may elect to take HONR 398 or HONR 499 while completing their majors.

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

HONR 101 Humanities Seminar - Thought 5
HONR 102 Humanities Seminar - Thought 4
HONR 103 Humanities Seminar - Thought 5
Critical reading and discussion of the works that have most deeply influenced the development of the Western world, including the Old Testament, Pre-Socratics, Plato, Aristotle, New Testament, St. Augustine, St. Thomas, Duns Scotus, William of Ockham.

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
Historical survey which also furnishes a background discipline for humanities-thought and humanities-literature, covering Hebrew, Near Eastern, Greek, Roman, and Medieval history.

HONR 131 Humanities Seminar - Modes of Inquiry and Knowing 3
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 Renaissance to modern times.

HONR 231 Humanities Seminar - Science **3**
A historical and philosophical examination of assumptions and experiments in the physical or biological sciences.

HONR 232 Humanities Seminar - Science **4**
A three-hour lecture and three-hour laboratory course in the biological sciences which fulfills the core requirement in science.

HONR 243 Humanities Seminar - Music **2**
Twentieth century music with emphasis upon historical and cultural correlations.

HONR 251 Humanities Seminar - Social Science **4**
An introduction to political science or sociology through an examination of influential thinkers 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 5**
Private work by arrangement. Prerequisite: approval of program director.

Interdisciplinary Studies-Social Science

Bradley Scharf, PhD, Interim 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 program 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/Economics
International Studies/Foreign Language
International Studies/History
International Studies/Politics

Minor Offered

International Studies

Study 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

Major in International Studies/Economics

In order to earn the bachelor of arts degree with a major in international studies-economics, 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	101 or 107 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:

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†, MGMT 320†, or MKTG 456†)	
Foreign Language above 135		15
HIST	Elective (non-U.S.)	10
	(Choose from HIST 313, 315, 381, 383, 387, 420, 440, 481)	
PLSC 260	Introduction to Global Politics	5
PLSC	Upper Division Elective (Int'l or Comparative)	5
Approved Elective*		5

IV. Other Program Requirements

ECON 272	Microeconomics	5
MATH 130 or 134 (prerequisite to upper-division business or economics)		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 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. †6. The prerequisite requirements for FINC 446, MGMT 320, and MKTG 456 are junior standing and all specific prerequisite courses listed in the Bulletin of Information.

Bachelor of Arts
Major in International Studies/History

In 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 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	101 or 107 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, 420, 440, 481)	
PLSC 231	Diversity and Change	5
PLSC 260	Introduction to Global Politics	5
PLSC	Upper Division Elective (Int'l 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. Other Program Requirements

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 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/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	101 or 107 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 135 25
HIST Elective (non-U.S.) 10
(Choose from HIST 313, 315, 381, 383, 387, 420, 440, 481)
PLSC 231 Diversity and Change 5
PLSC 260 Introduction to Global Politics 5
PLSC Upper Division Elective (Int'l 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 Enterprise
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 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
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/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	101 or 107 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 135		15
HIST	Elective (non-U.S.)	10
	(Choose from HIST 313, 315, 381, 383, 387, 420, 440, 481)	
PLSC 231	Diversity and Change	5
PLSC 260	Introduction to Global Politics	5
PLSC	Upper Division Electives (Int'l 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 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.

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	5
	(Choose from ECON 330, 376, 379, 386, 472, 473)	
HIST	Elective (non-U.S.)	10
	(Choose from HIST 313, 315, 381, 383, 387, 420, 440, 481)	
PLSC	Electives (dealing with international and foreign systems, 300-400 level)	10
Approved International Elective		5

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, BA, 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	101 or 107, 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 Requirements

Sixty credits in liberal studies, including:
Humanities
English, fine arts, foreign language, history, philosophy, and religious studies, (300-400 level, including five credits in composition/writing) 20
Social Sciences
Anthropology, communications, criminal justice, economics, political science, psychology, sociology, and a limited number of addiction studies courses (300-400 level) 15
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: 40 credits must be taken at 300-400 level; 25 of these must be taken at Seattle University.

Liberal Studies Course

LBST 490 Senior Synthesis/Project 5

In the senior year students either take an approved seminar course offered by one of the other majors in the College of Arts and Sciences, or work on a research project that builds on previous studies. Students' faculty advisers must grant final approval of projects, based on written outlines. The thematic content of projects are determined by students' already approved academic program.

Medieval Studies Minor

Robert Spitzer, SJ, PhD, Coordinator

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 391-393	Special 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 study courses may be arranged with individual faculty members in conjunction with the minor coordinator.

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:

Robert Spitzer, SJ, PhD, Casey 418, (206)296-5463. 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

LTC 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), three workshops (leadership labs) 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 confidence-building 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 1 of their senior year. College freshmen may be eligible to apply for three-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 may vary and may be enhanced by room and board packages 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 six-week advanced camp 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 developing the following leadership dimensions: initiative, oral and written communications, judgment, decisiveness, sensitivity, technical competence, planning and organizing, administrative control, delegation, and problem analysis. Behavioral development occurs through course work in the areas of professional military education (PME), military knowledge (MK), and military skills (MLSC).

PME courses are designed to develop students' ability to communicate appropriately in writing, understand the human aspects of command, become familiar with personal computer terminology, hardware, and application software, develop the ability to understand and use basic mathematical models for problem solving and decision making and to become acquainted with the evolution of warfare and military theory with a particular emphasis on the place of military institutions in society.

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.

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 111, 112, 119, 213, 214, 218, 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 (MLSC 210).

Freshman year

MLSC 111, 112, and 119	6
PME: English 110 or equivalent	5
CSSE 113 Introduction to Computers and Application	5
MLSC 217 Army Conditioning	1

Sophomore year

MLSC 213, 214, 218	6
MLSC 217 Army Conditioning	1
PME: Course in psychology, sociology, anthropology, or ethics	5
MATH 111 College Algebra	5

Advanced Course

Junior year

MLSC 311, 312, and 313	9
MLSC 314 or 315 (Advanced Camp)	4
PME: HIST 313, 315, 317, 319, 339, 347, PLSC 260, or PLSC 365	5

Senior year

MLSC 412, 413, and 414	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 111 Basic Officership I **2**
Make your first new peer group at college one committed to perfoming well and enjoying the experience. Increase self-confidence through team study and activities in basic drill, physical fitness, rappelling, leadership reaction course, first aid, making presentiations and basic marksmanship. Learn fundamental concepts of leadership in a profession in both classroom and outdoor laboratory environments. Includes two leadership labs and one field training exercise.

MLSC 112 Military Communication Skills **2**
Development of written and oral communication skills for the military leader. Practical application through student participation, presentations, and writing projects. Includes two leadership labs and one field training exercise.

MLSC 119 Introduction to Military Operations **2**
An introduction to air and land warfare. Course will concentrate on the skills of the individual soldier and the squad. Includes weapons and fighting techniques in the offense and defense. Includes two leadership labs and one optional field training exercise.

MLSC 213 Leadership Assessment **2**
Through a series of classroom simulations, participants are evaluated on their potential as leaders and managers. Includes organizational behavior, leadership theories, management competencies, communication skills, physical fitness, and the leadership assessment program (LAP). Includes two leadership labs and one field training exercise.

MLSC 214 Military Ethics and Values **2**
Through a series of films, books, essays, and discussions students explore and are introduced to military value sets and the ethics practiced within the profession of arms. Provides introduction to lifesaving techniques. Includes two leadership labs and one optional field training exercise.

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, airborne, or Ranger schools.

MLSC 218 Map Reading **2**
An introduction to military map reading. Includes discussion of coordinates, azimuths, conversion, intersection/resection, interpretation of symbols, and relief. Includes two leadership labs and one field 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 Directed Study **1 to 5**

Military Science Advanced Courses

MLSC 311 Advanced Officership III **3**
An orientation on the competencies required of the small unit leader/ manager. Includes lower-echelon organizations, tactics, deployment, and communications. Permission of instructor. Includes three leadership labs and one field training exercise.

MLSC 312 Land Navigation Competencies **3**
Principles of land navigation using terrain analysis, map reading, aerial photograph interpretation, and the basics of orienteering. Permission of instructor. Includes three leadership labs and one field training exercise.

MLSC 313 Officership/Leadership/Management **3**
A survey course of leadership/management and motivational theories required of the small unit leader. Includes ethics and professionalism, human behavior, and the decision-making process. Permission of instructor. Includes three leadership labs and one field training exercise.

MLSC 314 Advanced Camp **4**
A six-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 315 ROTC Nurse Summer Training Program **4**
Only open to nursing students who have completed MLSC 301, 312, and 313. The student receives pay. Travel, lodging and most meal costs are defrayed by the US Army. The camp and clinical environments are demanding, stressing leadership and nursing under varying, challenging conditions. Individual leadership and basic skills performance are evaluated throughout. Pass/Fail grading. The leadership and skills evaluations weigh heavily in the subsequent selection process that determines the job opportunities offered to the nurse upon graduation. After completion of advanced camp, nursing students may serve up to five weeks in a military medical treatment facility.

MLSC 391 Special Topics **1 to 5**
MLSC 392 Special Topics **1 to 5**
MLSC 393 Special Topics **1 to 5**

MLSC 396 Directed Study **1 to 5**

MLSC 412 Professionalism and Responsibility **3**
A survey course which assists students in coming to grips with the concept of officership. Covers Army values, ethics, professionalism, responsibilities to self, subordinates and country, law of land warfare, and the resolution of ethical/value dilemmas. Permission of instructor. Includes three leadership labs and one field training exercise.

MLSC 413 Contemporary Political and Social Issues 3
The capstone course prior to commissioning, discusses the role of the officer and the institution in a rapidly changing world environment. Covers topics from national security to Third World nationalism to the Soviet Union. Includes three leadership labs and one field training exercise.

MLSC 414 Transition to Lieutenant 3
Continues the methodology from MLSC 413. Identify and resolve ethical dilemmas. Refine counseling and motivating techniques. Examine aspects of tradition and law as they relate to leading as an officer in the Army. Prepare for a future as a successful Army lieutenant. Includes three leadership labs and one field training exercise.

MLSC 419 Military History 5
A survey course intended to improve students' understanding of the nature of war and the place of military institutions in society. Develops impact of leaders on the conduct of the battle. Major emphasis on the battles of the Revolutionary War, Civil War, WWI, WWII, and Vietnam.

MLSC 491 Special Topics 1 to 5
MLSC 492 Special Topics 1 to 5
MLSC 493 Special Topics 1 to 5

MLSC 496 Independent Study 1 to 5

Aerospace Studies (Air Force ROTC)

Col. Jack L. Johnson,
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 with a cumulative GPA of 2.5 or better. 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 division courses consist of one classroom hour and one 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 six-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 one hour 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 one-, 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. A special one-year scholarship is available for nursing and law majors. Nursing students are given special consideration in fulfilling their

AFROTC courses to allow time to meet their clinical and core course requirements. AFROTC scholarships pay tuition, certain fees, and full textbook reimbursement. 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 uro@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 2.65 cumulative GPA (in any major). Students interested in this program must apply to AFROTC.

General Military Courses

Offered at the University of Washington

AS 101 Aerospace Studies 100 1
AS 102 Aerospace Studies 100 1
AS 103 Aerospace Studies 100 1

A survey course introducing topics relating to the Air Force and defense, including Air Force career opportunities, flight dynamics, and a survey of the other braches of the military services. Officership qualities and written communication skills will be emphasized. The Weekly Leadership Lab (LLAB), consisting of Air Force customs and courtesies, health and physical fitness, and drill and ceremonies, is provided for all students who are interested in becoming Air Force officers. Credit does not apply to the bachelor's degree.

AS 211 Aerospace Studies 200 1
AS 212 Aerospace Studies 200 1
AS 213 Aerospace Studies 200 1

Factors contributing to the development of air power from its beginnings to the present and the evolution of air power concepts and doctrine. History of air power employment in military and nonmilitary operations in support of national objectives. Assessment of communicative skills. Additional one-hour leadership laboratory is available.

Professional Officer Courses

Offered at the University of Washington

AS 331 Aerospace Studies 300 3
AS 332 Aerospace Studies 300 3
AS 333 Aerospace Studies 300 3

Emphasis on leadership and management fundamentals, professional knowledge, leadership ethics, and communicative skills required of an Air Force junior officer. Case studies are used to examine leadership and management situations. Mandatory leadership laboratory provides advanced leadership experiences in officer-type activities, giving students the opportunity to apply learned principles.

AS 431 Aerospace Studies 400 3
AS 432 Aerospace Studies 400 3
AS 433 Aerospace Studies 400 3

Needs for national security, evolution of American defense strategy and policy, methods for managing conflict, alliances, and regional security to preserve American interests. Arms control 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. David K. Moussette, PNS, Department Chair, University of Washington

Objectives

Naval ROTC is offered to Seattle University students through an agreement with the University of Washington. The objective of Naval ROTC is to educate and train young men and women as officers in the United States Navy or Marine Corps. The single largest source of officers for the Navy and Marine Corps, NROTC provides citizen sailors and marines with a liberal educational background.

General Program Requirements

Generally, classes are taught at the University of Washington, in Clark Hall. Classes are open to all Seattle University students via UW Extension. 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 an academic degree from Seattle University will be offered commissions as officers in the United States Navy or in the Marine Corps.

Scholarships

Four-, three-, and two-year scholarships are available. Special nursing program scholarships are offered as well. 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, Clark Hall, University of Washington Box 353840, Seattle, WA 98195-3840, or call (206) 543-0170.

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.

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 $100 during their junior and senior years, including the intervening summer. The Navy furnishes all uniforms and textbooks used in naval science courses.

Freshman college program students are eligible for a scholarship after completing one academic term, with scholarship awards based on academic grades and participation within the midshipman battalion. The two-year college program students also may win a scholarship for superior performance at the NSI. Upon graduation, college program students are commissioned in the Navy Reserve or Marine Corps Reserve and serve on active duty for four years. Additional information concerning the NROTC programs may be obtained by writing the Professor of Naval Science; 305 Clark Hall, University of Washington Box 353840; Seattle, WA 98195-3840; or by calling (206) 543-0170.

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, gas turbines, and auxiliary power systems.

N SCI 212 Naval Ship Systems I **3**
N SCI 213 Naval Ship Systems I **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 Celestial Navigation **3**

Theory and practice of celestial navigation. 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 amphibious landings.

N SCI 423 USMC Leadership and Administration of Justice **3**
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 to 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

Philosophy

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	101 or 107 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		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 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

Fifty-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 345	Ethics	5

C. History and Traditions

PHIL 370	Introduction to Modern Philosophy	5
PHIL 441	The Greek Experience: Plato/Aristotle	5
PHIL 442	The Medieval Synthesis: 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

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) 5

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 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 Logic 5

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 5

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: PHIL 210 or 220.

PHIL 306 Philosophy and Psychology **5**
A study of the interrelationships between philosophical methods and contents, and the method and contents of psychology, with special focus on the psychoanalytic and phenomenological-existential developments of psychological theory. Prerequisite: PHIL 210 or 220.

PHIL 308 Philosophy and Literature **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 **5**
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 **5**
A philosophical study of religious consciousness in terms of the relationships between religious consciousness and human authenticity, in both its individual and social dimensions. Prerequisite: PHIL 210 or 220.

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 Philosophy of History **5**
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 Scientific Revolutions **5**
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 **5**
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 **5**
Critical 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 **5**
This 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 **5**
Readings 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 **5**
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 **5**
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 **5**
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 Process Philosophy **5**
Critical reflection on the philosophies of such thinkers as Bergson, Pierce, Whitehead, and Hartshorne. Prerequisite: PHIL 210 or 220.

PHIL 367 Gender and Social Reality **5**
A study of the influence of feminist thinking on metaphysics, epistemology, ethics, and the methodology of philosophy. Prerequisite: PHIL 210 or 220.

PHIL 370 Introduction to 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 **5**
Readings 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 402 Knowledge and Reality **5**
Examination of the interrelations between theories of knowledge and metaphysics, with emphasis on: the nature and scope of human knowledge; the relations of perception to understanding; change and causality; the possible and the real. Prerequisite: PHIL 210 or 220.

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 **5**
A survey and comparison of classical texts on ethical theory, (e.g., Aristotle, Aquinas, Mill, and Kant). Prerequisite: PHIL 210 or 220.

PHIL 440 Advanced Health Care Ethics **5**
An in-depth examination of special topics in health care ethics, such as beginning of life, end of life, use of resources, and insurance/entitlement issues. Prerequisite: PHIL 345, 352, or 439.

PHIL 441 The Greek Experience: 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.

PHIL 442 The Medieval Synthesis: Augustine/Aquinas **5**
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 Interdisciplinary Core Course **3 to 5**
Title and content may change each term. Prerequisite: PHIL 210 or 220.

PHIL 490 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 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 planning to become elementary teachers or secondary political science or social studies teachers must complete a bachelor's degree prior to beginning the teacher preparation program. They should discuss their major with their political science adviser to ensure that they are enrolled in the appropriate courses and must contact the School of Education for advising. Second endorsements are available in political science (24 credits) and social studies (45 credits).

Bachelor of Arts
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	101 or 107 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, 485)		5
American Politics (PLSC 300, 301, 302, 303, 304, 305, 306, 307, 309, 410)		5
Comparative Politics (PLSC 330, 331, 332, 333, 338, 367, 432)		5

International Politics (PLSC 362, 367, 461) 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 101 or 107 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. 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

II. 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 488 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 5

This class will explore the theory and practice of democratic citizenship. Through a concentration of classroom learning and experiential service learning, we will consider 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 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 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. (formerly PUB 280) AL

PLSC 300 Environmental Politics 5
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 5
The constitutional context and historical development of the president's role in the American political system. Personality and leadership. Relations with the public, Congress, the media, and foreign governments. (Formerly titled The American Presidency.) 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. (formerly Government and the Economy) 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 and Protest 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 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. (formerly PLS 210) 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. (formerly PLS 406) AL

PLSC 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. (formerly PLS 406; formerly titled The Supreme Court and the Bill of Rights.) AL

PLSC 330 Russian Politics and Society 5
The rise and fall of the Soviet Union as a special case of political development. The meaning of Lenin, Stalin, and Gorbachev. Ethnic conflict, economic dilemmas, and social strains. Democracy and authoritarianism in the successor states. C

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 3
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 333 Politics of Canada 2
Canada as a North American alternative in political culture and social welfare. Federalism, provincial powers, and Quebec seperatism. Elite rule and democratic accountability. United States impacts on our largest trading partner. C

PLSC 338 African Politics 5
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 352 Modern Political Thought 5
Foundations of modern Western political thought, from the Renaissance to the French Revolution. T

PLSC 355 Contemporary Political Thought 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. (formerly International Organization) 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 **5**
Characteristics of the control structure in public and non-profit organizations, including financial reporting, output measurement, programming, budget preparation, performance monitoring, and evaluation. (formerly PUB 479 Management Control) AL

PLSC 379 Public Sector Analysis **5**
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. (formerly PUB 379) AL

PLSC 382 Research Methods **5**
Social science techniques in defining and executing public policy evaluation. Research design, data acquisition, basic quantitative skills, modes of effective research presentation. (formerly PUB 382)

PLSC 391 Special Topics **1 to 5**
PLSC 392 Special Topics **1 to 5**
PLSC 393 Special Topics **1 to 5**

PLSC 410 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. (formerly PLS 310) A

PLSC 432 Welfare States **5**
Culture 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 **5**
In-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. (formerly PLS 359) 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. (formerly PLS 365) 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. (formerly PLS 456)

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. (formerly PUB 485, then PLS 495) AL

PLSC 495 Internship **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. (formerly PLS 488)

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

Robert J. Spitzer, SJ, PhD, Director
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 the director.

This program also helps qualified students compete for several national and international graduate scholarships, such as the Rhodes , Marshall, Mellon, Fulbright, Luce, Truman, Rotary, Javits, and National Science Foundation scholarships. For information about these scholarships and their eligiblity requirements, contact the director.

Premajor Program

Betsey Barker Klein, BA, 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

Jan O. Rowe, PhD, 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/E 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 discuss their majors with their psychology advisers to ensure that they are enrolled in the appropriate courses, and contact the School of Education for advising. Second endorsements are available in psychology (24 credits) and social studies (45 credits).

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	101 or 107 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*	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	25

Please Note: 1. *Must be graded C (2.0), or better. 2. No more than 10 credits of independent study are permitted. 3. † Prerequisite: Must pass departmental algebra test. See department secretary.

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 specialization in addiction 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	101 or 107 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 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 independent study are permitted. † 3. Prerequisite: must pass departmental algebra test. See department secretary for details.

Bachelor of Science Major in Psychology

In order to earn the bachelor of science degree with a major in psychology, students must complete a minimum of 180 credits with a cumulative 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	101 or 107 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 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
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 Program 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. 3. † Prerequisite: must pass departmental algebra test. See department secretary for details.

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 **5**
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 Personality Adjustment **5**
The normal personality; self-knowledge and self-actualization; personality adjustment problems; various inadequate reactions, escape and defense mechanisms; positive mental health.

PSYC 220 Individual and Society **5**
How the individual shapes society by interacting with the various cultural institutions and how society, in turn, shapes the individual, especially during the growing up years. The psychological nature of individualism and how that nature is expressed in daily life.

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. Prerequisite: PSYC 120. (fall)

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. Prerequisite: must pass departmental algebra test. See department secretary for details. 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. Corequisite: PSYC 303 (fall, winter)

PSYC 305 Statistics and Research Methods: Applied* **4**
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. Prerequisite: PSYC 303 and 304. Corequisite: PSYC 306 (winter, spring)

PSYC 306 Lab for Statistics and Research Methods: Applied* **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. Prerequisite: PSYC 303, PSYC 304. Corequisite: PSYC 305 (winter and 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 **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 Psychology of 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 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 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 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 Psychology of Death and Dying **5**
Topics 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 **5**
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 **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. Prerequisite: PSYC 120.

PSYC 440 Cognitive Psychology **5**
Considers 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 **5**
Basic theory and principles of group dynamics. Experience of group dynamics in a group focusing on the interpersonal, gives a foundation for understanding theory.

PSYC 480 Introduction to Alcohol and Drug Addiction **3**
Psychological, educational, physiological, social, industrial, psychiatric, therapeutic, and rehabilitation aspects of the problem of alcoholism. 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 489 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. Satisfies core senior sysnthesis. (formerly PSY 499)

PSYC 491	**Special Topics in Psychology**	**1 to 5**
PSYC 492	**Special Topics in Psychology**	**1 to 5**
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 5**

By 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 must complete a bachelor's degree prior to beginning the teacher preparation program. They should discuss their major with their sociology adviser to ensure they are enrolled in the appropriate courses and must contact the School of Education for advising. Second endorsements are available in sociology (24 credits) and social studies (45 credits).

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 Origins of Western Civilization 5
ENGL 120 Masterpieces of Literature 5
MATH 101 or 107 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 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 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-Cycle
ANTH 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, and anthropology will be required for graduation. 2. Transfer students must complete a minimum of 25 credits in sociology, social work, and/or anthropology at Seattle University.

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 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 101 or 107 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 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 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-Cycle
- ANTH 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 social work admissions committee. 2. A minimum of 30 upper division credits in sociology, social work, and anthropology will be required for graduation. 3. Transfer students must complete a minimum of 25 credits in sociology, social work, and/or anthropology at Seattle University.

Minor in Sociology

In 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 Methods
- SOCL 402 Sociological Theory

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-Cycle
ANTH 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 SOCW credits at Seattle University for the minor.

Minor in Social Work

In 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.

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 **5**
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.

SOCL 209 Social Problems /Social Solutions **5**
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 **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 **5**
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 **5**
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 **5**
Inquiry 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 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 **5**
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 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 & Ethnicity **5**
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 & 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 5
Exploration 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 5
Exploration 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.

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 post-modern society will be discussed. Required of all SOCL and SOCW majors. Prerequisites: SOCL 301, 302.

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 3 to 5
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

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 Special Topics **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 **5**
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 Special Topics **1 to 5**

SOCW 496 Independent Study **1 to 5**
SOCW 497 Directed Study **1 to 5**
SOCW 498 Directed Research **1 to 5**

Anthropology

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.

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.

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.

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

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-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 Major in Theology and Religious Studies

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	101 or 107 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: 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 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 Jesus the Christ
TRST 312 Rethinking God
TRST 317 Church as Community
TRST 321 Symbol, Ritual, and Sacrament

Choose one of the following ethics courses: 5
- TRST 330 God, Money, and Politics
- TRST 334 Jesus and Liberation
- 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 Historical Theology I 5
- TRST 420 Historical Theology II 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 religious studies 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 30 credits 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

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 5

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 Metaphor and Gender in the Bible **5**
Investigation of the metaphorical nature of biblical language with a focus on the dynamics of a faith tradition and on the role of a community's values in determining the character of a text. Study of those stories, themes, and images in the biblical world which gave structure and meaning to people's lives, exploring how these aspects reflect and influence the understanding of male and female roles, ancient and modern. B

TRST 230 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 The Catholic Tradition **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.

TRST 252 Living Prayer **5**
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 **5**
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 African-American collective psyche.

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.

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 Service— Theological Reflection

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 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 **5**
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 Jesus the Christ **5**
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.

TRST 312 Rethinking God **5**
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 Church as Community **5**
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.

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 **5**
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: The Giving and Taking of Life **5**

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 **5**

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 Dialogue, East and West **5**

Comparative study of Western and Eastern religious traditions; common categories for understanding what people seek in any religion—knowledge of the holy, harmony with the real world, significant moral value, and what differentiates one tradition from another; principles for interfaith dialogue that avoid obstacles to development within traditions and obstacles to dialogue between traditions. WR

TRST 373 Creation Spirituality **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 Special Topics **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 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 Historical Theology I 5
Development of the Christian community's understanding in faith through the first 12 centuries, highlighting its theologians' thinking through the tradition in light of the intellectual, social, and cultural milieux of their day. Growth of trinitarian and christological developments of the fourth and fifth centuries as well as the effect of the rise of monasticism and the universities on theological thought. Close readings of several major figures (e.g., Irenaeus, Origen, the Cappadocians, Augustine). H

TRST 420 Historical Theology II 5
Development of the Christian community's understanding in faith from the thirteenth to the twentieth century, highlighting its theologians' thinking through the tradition in light of the intellectual, social, and cultural milieux of their day. Close readings of several major figures (e.g., Thomas Aquinas, Martin Luther or John Calvin, Friedrich Schleiermacher, Karl Rahner). Church councils, theological movements, and other figures surrounding and connecting these major thinkers. H

TRST 461 Theology Seminar 5
In-depth investigation of one selected theme that engages students in the full range of advanced theological reflection—biblical roots, historical development, contemporary reinterpretations, implications for life—and includes attention to the trinitarian dynamic of Christian theology. Examples include Trinity, grace, and life in the Spirit; Christian anthropology; Christology; justice and the common good; etc. Capstone course for the major; does not satisfy senior synthesis requirement. Prerequisite: major, minor, or permission.

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

Connie Anthony, PhD, 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 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 **5**

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 **5**

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, permission of instructor.

Courses Based in Other Departments

(See departmental listings for descriptions.)

CRJS 405	Feminist and Multicultural Criminology	5
CMJR 480	Gays, the Media, and Politics (or Sex, Myth, and Media)	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 (Only sections designated X:WS in the remarks column of the quarterly schedule of classes)	5
PHIL 367	Gender and Social Reality	5
PSYC 340	Psychology of Gender	5
SOCL 318	Gender and Sexuality	5
SOCL 402	Sociology Theory (Only sections designated X:WS in the remarks column of the quarterly schedule of classes)	5
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 class titles include: ECON 491 Economics of Gender and the Family; HIST 393E Her Story/His Story; HUMT 400 Women: Image/Reality; PLSC 392E The Politics of Gender; SOCL 492E Sex: Forms of Desire; WMST 392E Feminist Theories and Methods. Appropriate offerings will be identified each term in the schedule of classes.

Albers School of Business and Economics

C. Frederick DeKay, PhD, Acting Dean
Mary Carpenter, MEd, Director of Graduate Programs
David White, MBA, Director of Marketing and External Relations
Wendie Phillips, MA, Director of Undergraduate Programs
Elizabeth Warrick, MA, Director of Albers Placement Center

Department Chairs

Accounting: David E. Tinius, PhD
Management: Karen Brown, PhD
Economics and Finance: Barbara M. Yates, PhD
Undergraduate Program Chair: Mary Jean Rivers, PhD
Graduate Program Chair: William Weis, PhD

Program Directors

Individualized Major in Business Administration: Mary Jean Rivers, PhD
International Business: David Arnesen, JD
Management: Barbara Parker, PhD
Marketing: Carl Obermiller, PhD
Operations: Greg Magnan, PhD

Professorships and Endowed Chairs

Robert D. O'Brien Chair in Business: Diane Lockwood, PhD
Frank Schrontz Endowed Chair of Ethics: Robert Sptizer, SJ, 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 American Assembly of Collegiate Schools of Business (AACSB).

Organization

The Albers School has two principal divisions, undergraduate and graduate studies. Undergraduate majors are offered in eight 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

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

Certificate of Post-Baccalaureate Studies

Accounting
Business Administration
Business Economics
Finance
International Business
Manufacturing Management
Purchasing
Quality

Graduate Programs

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
Certificate of Post-MAE Studies
Certificate of Post-MBA Studies
Certificate of Post-MSF Studies
Certificate of Post-MIB Studies

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 eight 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.

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 such as group advising or junior day.

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 co-sponsored with Career Development Center and Volunteer Center)
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).

Progression

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, BUEN 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.

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.

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

Bachelor of Arts in Business Administration

Major Offered

Accounting

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. 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*

Forty 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
ACCT Electives 10
(Choose two from ACCT 430, 431, 432, 435, 436, 437, or other approved upper-division accounting courses.)

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. There is no room in the accounting program for open electives.

* Major requirements and must earn a C- grade or better.

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

Bachelor of Arts in Business Administration

Major Offered

Business Economics

Bachelor of Arts in Business Administration Major in Business Economics

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
*Major requirements and must earn a grade of C- 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:

ECON 374	Intermediate Microeconomics	5
ECON	Electives	15
	(Choose from ECON 330, 468, 471, 472, 473, 475, 476, 478, 483, FINC 443)	

Choose one of the following two courses: 5

ECON 474	Forecasting Business Conditions
ECON 463	Applied Econometrics

Please note: 1. ECON 330 must be taken as part of the business foundation or as an upper-division economics course. 2. ECON 377, 386, and 479 may not be used to satisfy an upper-division economics elective.

* Major requirements must earn a C- grade or better.

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 Thought
ECON 489	Senior Research (with permission of department chair)

Please Note: 1. For the bachelor of arts in economics, (BA ECON) 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. ACCT 230 Principles of Financial Accounting and MGMT 280 Communications for Business are highly recommended general electives.

*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

Bachelor of Arts in Business Administration

Major

Finance

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
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 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 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 441, 444, 445, 446, or other approved upper-division finance courses.)

Please Note: 1. Finance majors must take ECON 330 as part of the business foundation or as one of the two elective courses in the major. 2. Students are encouraged to take additional courses in accounting and economics as general electives. 3. ACCT 432 Issues in Financial Reporting is highly recommended as a general elective.

* Major requirements and must earn a C- grade or better.

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-the-job 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. ASBE Arts and Sciences 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-division work in business and/or economics from at least three different disciplines, selected with an adviser's approval. At least 10 of the credits must be 400-level courses.

*Major requirements must earn a C- grade or better.

International Business

David Arnesen, JD, 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. ASBE Arts and Sciences 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. 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 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. 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.

*Major requirements must earn a C- grade or better.

Management

Barbara Parker, 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 382 Organizational Behavior 5
MGMT 383 Human Resource Management 5
MGMT 479 Small Business Management 5
MGMT Electives 10
(Choose from MGMT 471, 477, 483, 485, 486, or other approved 300- or 400-level management courses.)

*Major requirements must earn a C- grade or better.

Marketing

Carl Obermiller, 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

Marketing

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. 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:

MKTG 351 Buyer Behavior 5
MKTG 451 Marketing Research 5
MKTG 452 Marketing Management 5
MKTG Electives 10
(Choose from MKTG 352, 353, 354, 355, 356, 456, or other approved 300- or 400-level marketing courses.)

Please Note: ECON 374, 472, 473, and OPER 361 and 362 are strongly recommended as general electives.

*Major requirements must earn a C- grade or better.

Operations

Greg Magnan, PhD, Program Director

Objectives

The operations concentration has been developed in response to the growing demand for professionals who have the ability to support and lead efforts aimed at improving quality, service delivery, and productivity. The field of operations focuses on the factors that determine global competitive position in service and manufacturing enterprises. Examples of career areas for operations graduates include quality assurance, process improvement, project management, service delivery assessment, purchasing, supply chain management, planning and scheduling, and inventory management. Course work provides students with technical skills, theoretical background, and hands-on exposure to industry practices. An emphasis is placed on problem solving as well as developing written and oral communication skills.

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 major
Senior Synthesis satisfied by MGMT 489
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:

OPER 361 Operations Strategy 5
OPER 362 Principles of Quality 5
Plus one of the following tracks: 15
General Operations (select three): OPER 363, 364, 442, 462, 464, 465, 466, 467, or ACCT 330. At least one of the three courses must be a 400 level.
Purchasing (select three): OPER 363, 364, 464, or 466
Quality (select three): OPER 462 and 466, plus one OPER or related elective.

Please note: An internship is highly recommended for students with limited work experience.

*Major requirements and must earn a C- grade or better.

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:

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
300- or 400-level business course for which prerequisites have been met.		5

Students pursuing the minor are strongly advised to select a course dealing with international aspects of business

Please note: 1. Students working toward a minor in business are subject to the same grade requirements as students pursuing a major in business administration. 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. Students working toward a minor in economics are subject to the same grade requirements as students pursuing a major in economics. 2. ECON 377, 386 and 479 will not satisfy the upper division economics electives. See policy for minors on page 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 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 Business
BUEN 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: 115, 125, 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. Students working toward a minor in international business are subject to the same grade requirements as students pursuing a major in business administration. 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 (MAAE)

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 MAAE 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 non-business 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
The study and application of computer software tools to solve a wide range of accounting-related 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 Intermediate Accounting I 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 5
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 5
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 5
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 5
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 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 5
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. (Formerly titled Financial Statement Analysis)

ACCT 435 Auditing 5
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 5
Study of advanced topics in federal taxation, including formation, operation, and dissolution of the business entity. Exapnd 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 5
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
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 Business and International Law 5
The course will include 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 5
The course includes 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. In addition, lectures including 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**
Business statistics introduces the business and economics student to basic statistical procedures, concepts, and computer applications used in the business world. The course includes instruction in descriptive statistics, probability, decision theory, probability distributions, sampling distributions, statistical inference, chi-square analysis, and correlation. Prerequisites: MATH 130, MATH 134, or equivalent, CSSE 103. (fall, winter, spring)

ECON 271 Principles of Economics—Macro **5**
Organization, operation, and control of the American economy in its financial and socio-political settings; problems of inflation, unemployment, taxation, the public debt, money, and banking growth. Prerequisite: sophomore standing. (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. Prerequisite: sophomore standing. (fall, winter, spring)

ECON 310 Quantitative Methods and Applications **5**
This course is a 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**
This course will develop the economic theory necessary to understand how the international macroeconomy works and influences the behavior and success of business. Emphasis will be placed upon the impact of international macroeconomic events and how those events affect a firm's ability to compete. Prerequisites: ECON 271 and junior standing in the Albers school. Serves as Intermediate Macroeconomics course for economics majors and minors. (fall, winter, spring)

ECON 370 American Economic History **5**
A study of the key developments in American economic history; application of economic analysis to historical data and events; development of economic institutions. Prerequisites: ECON 271, ECON 272 and junior standing in the Albers school.

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 and junior standing in the Albers school.

ECON 376 Economic Development **5**
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, and junior standing in the Albers school. Does not satisfy ECON elective for business economics majors.

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 and junior standing in the Albers School. Interdisciplinary core course. Does not satisfy requirement toward business economics, economics major or minor.

ECON 379 Comparative Economic Systems **5**
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, 272, and junior standing in the Albers School.

ECON 386 International Business Enterprise **5**
This course examines changes in the international competitive environment and how business should respond to remain competitive in the global marketplace. Prerequisites: ECON 271, 272, and junior standing in the Albers School. For International Business and International Studies majors; does not fill requirement for business economics, 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**
The course 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, ECON 272, and junior standing in the Albers School.

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, 272, and junior standing in the Albers School. Can serve as Senior Synthesis for 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, 272, and junior standing in the Albers School.

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, 272, and junior standing in the Albers School.

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, 272, and junior standing in the Albers School; 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 and junior standing in the Albers School.

ECON 475 Industrial Organization **5**
Analysis of the market structure of American business and effects of different market structures on pricing, marketing, innovation, and profit seeking. Prerequisites: ECON 271, 272, and junior standing in the Albers School; 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, 272, and junior standing in the Albers School.

ECON 478 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 and junior standing in the Albers School. (formerly EC 378)

ECON 485 Topics in Macroeconomics **5**
Topics such as business cycles, growth theory and policy, open economy issues. Prerequisites: ECON 272, 330 and junior standing in the Albers School. (formerly EC 483)

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. (formerly EC 479)

ECON 491 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**
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 **5**

Thorough coverage of the topics: working capital management, capital budgeting, lease analysis, dividend policy, long-term sources of financing, and contingent claims as they apply to corporate finance. Prerequisite: FINC 340.

FINC 344 Investments and Portfolio Theory **5**

An introduction to the theory of investments and a review of empirical research in the area. Emphasis is on risk/return relationship. Topics to be covered include modern portfolio theory, asset pricing, the pricing of contingent claims, taxes, inflation and investments, and market efficiency. Prerequisite: FINC 340.

FINC 391 Special Topics **2 to 5**

FINC 441 Case Problems in Finance **5**

Through the use of cases, develop skills in identifying problems, conducting analysis, and using financial theory for making decisions in simulated business settings. Prerequisite: FINC 342.

FINC 443 Financial Institutions and Markets **5**

Nature, function, and role of financial institutions and markets in the economy. Transmission of monetary and fiscal policies through interest rates and funds flows. Prerequisites: ECON 271, FINC 340.

FINC 444 Security Analysis **5**

Analysis of the securities of public entities and private firms from both individual and institutional viewpoints. Prerequisite: FINC 340.

FINC 445 Risk Analysis **5**

Analysis of how risk and uncertainty affect the financial decision-making processes of individuals and financial institutions. Topics covered include hedging and insurance theory, and the operations of futures and options markets. 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 a firm to exchange rate changes, hedging techniques, capital budgeting, international financial markets, techniques of accessing blocked funds, foreign currency options, and other topics. Prerequisites: FINC 340.

FINC 449 Senior Seminar **5**
Advanced topics course. Purpose of course is to expose students to recent research in finance in a seminar setting. Topics covered will depend on instructor. Prerequisites: FINC 340, 342, 344.

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**
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 CR/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**
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. (Previously COMC 240.) (fall, winter, spring)

MGMT 320 Global Environment of Business **5**
This course will introduce 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. The course 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 **5**
Introductory survey of field of management, including organizational theory, behavior, development, strategy, and human resource management. Basic concepts and tools to solving organizational problems.Prerequisite: junior standing in the Albers School. (fall, winter, spring)

MGMT 382 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**
The adventure-based leadership seminar is a leadership development program that utilizes both indoor and outdoor experiential activities to 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 in this course. Prerequisite: MGMT 380.

MGMT 477 Managing Diversity **5**
Course views dominant and minority work values, and reviews diversity programs. Course assists students in discovering the personal and career roles they can play to value diversity. 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: 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 not satisfy a major requirement.

MGMT 496 Independent Study **1 to 5**
MGMT 497 Directed Reading **1 to 5**
MGMT 498 Directed Research **1 to 5**
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.

MKTG 350 Introduction to Marketing **5**
Survey of institutions and essential functions in the marketing system. Analysis of the marketing mix; product, place, promotion, and price strategies. Prerequisites: junior standing in the Albers School. (fall, winter, spring)

MKTG 351 Buyer Behavior **5**
Application of behavioral sciences to explore consumer and organizational decision-making processes. Study the information processing of consumers, the effects of environmental and behavioral influences, and the nature of organizational structure effects on buying. Prerequisite: MKTG 350.

MKTG 352 Marketing Communications **5**
Business firms' methods of communications to their markets and publics. Analysis of the promotional mix; personal selling, advertising, sales promotion and publicity. Promotion strategies. Prerequisite: MKTG 350.

MKTG 353 Sales Management **5**
Sales management deals with the personal selling function and its related administration and managerial activities. The course covers the development of the selling function, sales management planning, recruiting, training, sales force organization, supervision and motivation, compensation and evaluation. Prerequisite: MKTG 350.

MKTG 354 Introduction to Retailing Management **5**
Covers the major managerial, functional, institutional, and environmental dimensions of exchange transactions involving marketing organizations and ultimate consumers. Prerequisite: MKTG 350.

MKTG 355 Services Marketing **5**
Introduces the student to the specific challenges of marketing a services firm. Basic conceptual distinctions between facilitating the exchanges of goods and services are the focus 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 **5**
Introduces the basic concepts and techniques used to design transportation and logistics networks, including characteristics of common carriers, rate making, warehouse function and location, traffic management, and traffic law. Prerequisite: MKTG 350.

MKTG 451 Marketing Research **5**
Purpose, methods, and techniques of marketing research. Prerequisites: MKTG 350 and ECON 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 **5**
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**
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, quality improvement, inventory systems, facility layout, materials management, scheduling, aggregate planning, 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 Strategy **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 Principles of Quality **5**
This course focuses on customer requirements and introduces tools available for improving manufacturing and service quality. Course topics include 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, process analysis tools, quality information systems, and motivational issues. Prerequisites: OPER 360, ECON 310; MKTG 350 recommended.

OPER 363 Operations Planning and Control Systems 5
This course covers planning and control systems applied to the transformation processes in manufacturing and service settings. Course 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. The course will provide 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 364 Purchasing and Materials Management 5
This course provides an overview of processes and decision-making tools in purchasing and materials management. Course topics are directed at the the acquisition and storage of materials and services required for manufacturing and service firms, including policies an procedures, contract management, technology in purchasing, specifications, sources of supply, price/cost analysis, inventory management, quality assessment, reducing purchasing costs, ethical issues, buying services, and controlling hazardous materials. Student teams visit local firms to analyze purchasing and materials management practices. Prerequisite: OPER 360

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 462 Quality Sytems Design 5
An interdisciplinary approach allows for the integration of technical and behavioral methods for designing quality systems in manufacturing and service enterprises. Topics include implementation strategies, design for quality, concurrent design, quality circles, loss-function, Taguchi methods, design of experiments, process capability, reliability prediction and modeling, and special issues for service operations. Prerequisite: OPER 362 recommended.

OPER 464 Supply Chain Management 5
This course introduces concepts and tools required to manage the network of suppliers producing goods and services which are subsequently converted by the buying firm. Course topics include supplier evaluation/selection, development and certification; logistics; partnering; technology; modeling; just-in-time purchasing; managing risk; international issues. Prerequisites: OPER 360; OPER 364 recommended.

OPER 465 International Study Tour in Operations 5
Students will 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. Additionall, students will 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
This course 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 467 Work and Process Design 5
Course topics are built around socio-technical systems theories and include work space layout, time and motion studies, job analysis, methods engineering, performance standards, assembly line balancing, group technology, cellular manufacturing, learning curves, ergonomics, safety, hazardous work environments, compensation, cost analysis of work design improvement strategies, quality of work life, and implementation issues. Students analyze design problems in local organizations. Prerequisite: OPER 360.

OPER 491 Special Topics in Operations 2 to 5
OPER 492 Special Topics in Operations 2 to 5

OPER 495 Operations Internship 1 to 5
Students exercise operations skills learned in the classroom by participating in the operations internship program. Internships are arranged with local businesses to match the interests and backgrounds of individual students. Functional areas may include purchasing, industrial engineering, operations analysis, space planning, quality management, materials, forecasting, production scheduling and others. Prerequisites: OPER 360 and 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
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.

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, Instructor in Civil/Environmental Engineering
Helen Wheatley, PhD, Assistant Professor of History
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, students must complete a minimum of 180 credits with a cumulative grade point average of 2.0 and a 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
HIST 121	Studies in Modern Civilization	5
ENGL 120	Masterpieces of Literature	5
MATH	111 or 118 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. 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:

ISSC 120	Introduction to Geology	5
ISSC 207	Air and Water	

Choose one of the following courses in ecological science 5

BIOL 275	Marine Biology
BIOL 470	General Ecology
CEEGR 477	Selected Topics: Restoration of Aquatic Ecosystems

or any 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 and Protest*
PLSC 456	The Human Prospect*
PSYC 480	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 classes 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*
PLSC 305 The Policy Process
PLSC 309 Local and State Politics
PLSC 410 Urban Politics and Public Policy
SOCL 306 Population Dynamics

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 which comprise 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 society's interactions with geosystems. Four lecture/discussion hours, three laboratory hours per week; one weekend field trip.

ECST 200 Introduction to Ecological Systems 5

The study of the basic structure and function of natural ecosystem: energy flow and nutrient 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 111 or 118.

ECST 360 Nature Writing and Ecological Ethics 5

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.

ECST 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

School of Education

Sue A. Schmitt, EdD, Dean
Dian S. Blom, EdD, Assistant Dean

Department Chairpersons

Adult Education and Training: Carol Weaver, PhD
Counseling and School Psychology: Max Hines, PhD
Curriculum and Instruction: Katherine L. Schlick Noe, PhD
Educational Leadership: Jeremy Stringer, PhD
Teacher Education: Margit E. McGuire, PhD

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 five departments: Teacher Education, Curriculum and Instruction, Counseling and School Psychology, Adult Education and Training, and Educational Leadership. 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 a teaching career should consult with an adviser in the School of Education as early as possible in order to include prerequisite courses in the bachelor degree program. Anticipating completion of the undergraduate degree, students may apply for entry into the master in teaching program.

Master in Teaching Program

The master in teaching program is designed to meet state standards for teacher certification for beginning teachers. After completing this program, students can be recommended for initial certification. In order to receive elementary or secondary certification, candidates must have full-time student teaching experience in their subject area. (See the *Graduate Bulletin of Information* for admission requirements and application procedures.)

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 listed 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 advisor for current requirements.

The following majors are suitable for secondary certification through Seattle University:

Art	K-12
Biology	4-12
Chemistry	4-12
English	4-12
English as a Second Language	K-12
English/Language Arts*	4-12
Foreign Language: French, German, Spanish, or Japanese	K-12
History	4-12
Mathematics	4-12
Physics	4-12
Science*	4-12
Social Studies*	4-12
Special Education	K-12

Additional Endorsements (Preschool-12)

The following majors are suitable for additional endorsements through Seattle University, although course work may not be available at Seattle University:

Agriculture	4-12
Anthropology	4-12
Bilingual Education	K-12
Business Education	4-12
Choral Music	K-12
Comparative Religion	4-12
Computer Science	4-12
Drama	4-12
Early Childhood Education	P-3
Early Childhood Special Education**	P-3
Earth Science	4-12
Economics	4-12
Foreign Language (other)	K-12
Geography	4-12
Health	4-12
Home/Family Life Education	4-12
Instrumental Music	K-12
Journalism	4-12
Learning Resources	K-12
Marketing Education	4-12
Music*	K-12
Philosophy	4-12
Physical Education	K-12
Political Science	4-12
Psychology	4-12
Reading	K-12
Sociology	4-12
Speech	4-12
Technology Education	4-12
Traffic Safety	K-12

Elementary and Secondary Continuing Certification

For continuing certification, teachers must obtain at least two teaching area endorsements. Those endorsements may be in elementary education or in one of the majors suitable for secondary certification or in one of the majors listed above for additional endorsements. Unless otherwise noted by an asterisk (*, **), 24 credits are required for the additional endorsement.

* 45 quarter credits required for additional endorsement.
**48 quarter credits required for additional endorsement.

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 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 5

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.

EDUC 438 Laboratory Experience - Elementary 1 to 6

Mandatory CR/F.

EDUC 439 Laboratory Experience -Secondary 1 to 6

Mandatory CR/F.

EDUC 446 Student Teaching Supplement 5 to15

EDUC 460 Computers and Instructional Technology in the Classroom 3

An examination of the uses of computers and other forms of media in the classroom.

EDUC 491 Special Topics 1 to 5
EDUC 492 Special Topics 1 to 5
EDUC 493 Special Topics 1 to 5

EDUC 496 Independent Study 1 to 5
EDUC 497 Directed Reading 1 to 5
EDUC 498 Directed Research 1 to 5

Matteo Ricci College

Arthur Fisher, PhD, Dean
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 O'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	60
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 requirements scheduled for the HUMT 150 and 180 series. Only those graded C (2.0) or higher will be accepted in fulfillment of all other humanities courses. 2. MRC students who have successfully completed an area of concentration may apply the credits earned toward a second baccalaureate 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 baccalaureate degree. 3. The curriculum for students entering MRC/SU from schools other than Seattle Prep will vary only slightly from the requirements listed above, depending on the content of the respective school's bridge curriculum. Students entering MRC/SU from the consortium schools must earn 145 credits for successful completion of the humanities degree.

Matteo Ricci College Humanities Courses

HUMT 150 Composition: Language and Thought **5**
Study and practice in informal logic and argumentation, with emphasis upon the composition of clear, persuasive writing.

HUMT 151 Composition: Language and the Arts **5**
Interdisciplinary study of artistic composition in a variety of art forms, with emphasis upon, and practice in, literary composition.

HUMT 156 Quantitative Reasoning **5**
Mathematics as a window to the world and as a practical art. Introduction to the role of quantitative reasoning in the study of social problems and in decision-making: case studies that feature exploratory data analysis, rates of change, and statistical concepts and methods. Emphasis on the formulation of hypotheses, translation of quantitative patterns into argument, and construction and use of mathematical models. Prerequisite: one year each 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 **1 to 5**

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 Cultural Interface **5**
Interdisciplinary 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. Entering students will be notified, in writing, of any change in the program of study.

Graduate Degree Offered

Master of Science in Nursing
(See *Graduate Bulletin of Information*)

Accreditation

Washington State Nursing Care Quality Assurance Commission
National League for Nursing

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 Accreditation 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

The academic and clinical performances of each nursing major are evaluated at the end of each quarter to determine progression in the program. 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 recommended for basic students and 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 level, program and comprehensive testing/evaluations. Fees associated with these processes are the responsibility of the student. 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 Medical Center, C.P.C. Fairfax, Evergreen Hospital Medical Center, Group Health Cooperative Hospital and Clinics, Harborview Medical Center, Highline Evaluation and Treatment Facility, Mt. St. Vincent's, Northwest Hospital, Overlake Medical Center, Pacific Medical Center, Providence Medical Center, Seattle King County Health Department, Seattle Public Schools, Swedish Hospital Medical Center, Valley Medical Center, Veterans Administration Medical Center, Virginia Mason 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

In order 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 major program requirements, including major prerequisites, 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 Civilization	
HIST 121	Studies in Modern Civilization	
ENGL 120	Masterpieces of Literature	5
MATH	101 or 107 or above*	5
Lab Science	(CHEM 101 required)*	5

PHIL 220 Philosophy of the Human Person 5
PSYC 120 Introductory Psychology* 5

Choose one of the following two courses: 5
Social Science II (not psychology)
FINR 120 or approved fine arts alternate

Theology and Religious Studies Phase II (200-299) 5
PHIL 352 Health Care Ethics 5
Theology and Religious Studies Phase III (300-399) 5
Senior Synthesis satisfied by NURS 490
Interdisciplinary satisfied by NURS 480
*Also major/program prerequisite; C (2.0) minimum grade allowed.
See detailed core curriculum in this bulletin

II. Major Requirements

Twenty-five prerequisite credits, including:
CHEM 102 Introductory Organic and Biochemistry 5
BIOL 200 Anatomy and Physiology I 5
BIOL 210 Anatomy and Physiology II 5
BIOL 220 Microbiology 5
PSYC 322 Psychology of Growth and Development (or approved alternate) 5

Ninety nursing credits, including:
NURS 200 Concepts in Professional Nursing 5
NURS 301 Health Promotion Across the Lifespan 5
NURS 302 Health Assessment 5
NURS 303 Basic Nursing Interventions 3
NURS 318 Nursing Care of Ill Adults I 3
NURS 319 Nursing Care of Ill Adults I-Practice 4
NURS 320 Pharmacological Principles Basic to Nursing Practice 2
NURS 321 Pathophysiology I 3
NURS 322 Pathophysiology II 3
NURS 323 Concepts in Gerontological Nursing 2
NURS 328 Nursing Care of Ill Adults II 4
NURS 329 Nursing Care of Ill Adults II-Practice 6
NURS 338 Nursing Care of Ill Children 3
NURS 339 Nursing Care of Ill Children-Practice 4
NURS 348 Psychiatric Mental Health Nursing 3
NURS 349 Psychiatric Mental Health Nursing-Practice 4
NURS 404 Research in Nursing Practice 3
NURS 410 Nursing Care of the Childbearing Family 3
NURS 411 Nursing Care of the Childbearing Family-Practice 4
NURS 412 Community Health Nursing 3
NURS 413 Community Health Nursing-Practice 4
NURS 423 Transition to Professional Nursing Practice 8
NURS 480 The Changing Family 3
NURS 490 Senior Synthesis in Nursing 3

III. Electives

Open Elective 5

Bachelor of Science in Nursing for Registered Nurse Students

Registered nurse students must complete degree requirements as outlined on page 249-250 which total a minimum of 180 quarter credits 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. A total of 48 nursing credits may be earned through validation using the National League for Nursing Mobility Profile II Examiniation program. (see Policy #85-1).

A minimum of 55 credits must be completed at Seattle University in upper division core and nursing courses.

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.

All RN-B students must meet the general program requirements specified for the bachelor of science students.

Please note: Prospective students are encouraged to work with a designated academic adviser to design a plan of study that meets both individual needs and program requirements.

Nursing Courses

NURS 200 Concepts in Professional Nursing **5**

An exploration of concepts and values for socialization to professional nursing. Introduction to nursing process and communication skills and the development of nursing and nursing theory in a historical context. (Theory, four credits; lab, one credit). Prerequisite: Phase I core courses. For majors only. Corequisite: NURS 301. (spring)

NURS 301 Health Promotion Across the Lifespan **5**

Concepts of health protection and promotion, and teaching-learning principles. Exploration of factors influencing health status of individuals across the lifespan; strategies to develop and modify health behavior. Prerequisites: Phase I core, PSYC 322. (spring)

NURS 302 Health Assessment **5**

History-taking, physical examination, and documentation skills. Assessment of healthy individuals includes physical, psychosocial, developmental, cultural, and spiritual aspects. Theory (2 credits), laboratory/clinical (3 credits). Prerequisites: BIOL 200, BIOL 210. Pre- or corequisite: NURS 200, NURS 301. (spring, fall)

NURS 303 Basic Nursing Interventions **3**
Skills related to basic needs, aseptic technique, and medication administration. Simulated lab practice and validation of performance. Prerequisites: Nursing Level 1, BIOL 220. Corequisites: NURS 318, NURS 319, NURS 320. (fall, winter) Mandatory CR/F grading.

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 318 Nursing Care of Ill Adults I **3**
A nursing process approach to care of the ill adult. Risk factors and common, uncomplicated physiological alterations in health states. Prerequisites: Nursing Level I; BIOL 220. Prerequisites or corequisite: NURS 303, NURS 320, NURS 321. (fall, winter)

NURS 319 Nursing Care of Ill Adults I - Practice **4**
Clinical practice to promote application of concepts, principles, and processes from previous courses and the corequisite NURS 318; experiences with ill clients in a variety of clinical settings. Mandatory CR/F grading. Prerequisites: Same as for NURS 318. Corequisite NURS 318.

NURS 320 Pharmacological Principles Basic To Nursing Practice **2**
Professional nursing responsibilities in assessing, planning, and evaluating pharmacological interventions. Prerequisites: CHEMEM 102, core math; Nursing Level 1 or permission. (fall, winter)

NURS 321 Pathophysiology I **3**
A conceptual approach to alterations in structure and function resulting from the action of stressors on the human body. Focus will be on the cellular and molecular basis of alterations. Areas of study include: homeostatic mechanisms, general mechanisms of cellular injury, inflammation, immune responses, infection, genetic basis of disease, altered cellular mechanisms leading to cancer, and fluid and electrolyte imbalances. Open to non-majors. Prerequisites: BIOL 200, BIOL 210. (fall)

NURS 322 Pathophysiology II **3**
Application of concepts from Pathophysiology I. Focus will be on alterations in the function of several body systems including respiratory, neurological, gastrointestinal, endocrine, and reproductive systems. Open to non-majors. Prerequisite: N321. (winter)

NURS 323 Concepts in Gerontological Nursing **2**
Health-derived and health-related concerns of older persons with emphasis on attitudes, adjustments in aging, environmental considerations, chronic illness, and ethical/legal aspects of nursing care. Prerequisite: Nursing Level I or permission. (winter, spring)

NURS 328 Nursing Care of Ill Adults II **4**
A nursing process approach to care of the ill adult with common, complex, physiological alterations in health. Application of values, nursing, and other theories as a basis for holistic care. Prerequisites: NURS 303, NURS 318, NURS 319, NURS 320, NURS 321. Prerequisite or corequisite NURS 322. Corequisite: NURS 329. (fall, winter, spring)

NURS 329 Nursing Care of Ill Adults II - Practice 6
Clinical practice to promote application of concepts, principles, and processes from NURS 328; experiences with individual clients in a variety of acute care settings. Prerequisites: same as for NURS 328; corequisite: NURS 328.

NURS 338 Nursing Care of Ill Children 3
The nursing process for the care of hospitalized infants, children, and adolescents with acute and/or chronic health problems. The focus is the child within a family. Prerequisites: NURS 303, NURS 318, NURS 319, NURS 320, NURS 321. Prerequisite or corequisite: NURS 322; corequisite: NURS 339. (fall, winter, spring)

NURS 339 Nursing Care of Ill Children - Practice 4
Clinical practice to promote application of concepts, principles, and processes from NURS 338; experiences with individual clients in a variety of clinical settings. Prerequisites: Same as for NURS 338; Corequisite: NURS 338.

NURS 348 Psychiatric Mental Health Nursing 3
A nursing process approach to nursing care of adults with biopsychosocial responses to mental distress and dysfunction. Application of values, nursing and other theories, as a basis for holistic care and promotion of growth and mental wellness. Prerequisites: NURS 303, NURS 318, NURS 319, NURS 320, NURS 321; pre or corequisite: N322. Corequisite: NURS 349. (fall, winter, spring)

NURS 349 Psychiatric Mental Health Nursing - Practice 4
Clinical practice to promote application of concepts, principles, and processes from NURS 348; experiences with individuals and groups in a variety of clinical settings. Prerequisites: Same as for NURS 348; Corequisite: NURS 348.

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 behaviors. 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 of different ages. 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 404 Research in Nursing Practice **3**

The research process as an integral part of nursing practice. Evaluation and application of research findings. Instructional methods emphasize use of group process to foster team work. Level 2 nursing course. Prerequisite: Nursing Level 1 and one quarter Nursing Level 2. (fall, spring)

NURS 410 Nursing Care of the Childbearing Family **3**

Application of the nursing process to the childbearing family. Health promotion in a variety of community settings. Analysis of contemporary issues relating to the childbearing family. Prerequisites: Core phase II, Nursing Level 2. Corequisite: NURS 411. (fall, winter, spring)

NURS 411 Nursing Care of the Childbearing Family - Practice **4**

Clinical practice to promote application of concepts, principles and processes from NURS 410; experiences with individuals and families in a variety of clinical settings. Prerequisites: Same as for NURS 410; Corequisite: NURS 410.

NURS 412 Community Health Nursing **3**

A systems framework for nursing interventions with clients, families, groups, and the community. Application of the nursing process, focusing on complex, chronic health problems of clients from diverse cultural groups in community settings. Prerequisites: Core phase II, Nursing Level 2, NURS 480. Pre- or corequisite NURS 410, 411: Corequisite: NURS 413. (fall, winter, spring)

NURS 413 Community Health Nursing - Practice **4**

Clinical practice to promote application of concepts, principles, and processes from NURS 412; experiences with clients, families, and groups in community settings. Prerequisites: Same as for NURS 412; Corequisite: NURS 412.

NURS 420 Drugs and Nursing Implications: A Case Study Approach **2**

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 2 or instructor permission. (winter and/or spring)

NURS 423 Transition to Professional Nursing Practice **8**

Integration of clinical and management skills. Management of care for groups of clients and families with complex health care needs. Students select a setting according to interests and availability. Prerequisites: Nursing Level 2. Corequisite: NURS 422 (winter, spring)

NURS 480 Interdisciplinary Core Course The Changing Family **3**

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. Required level 2 nursing course. Open to non-majors. Meets core interdisciplinary course requirement. Prerequisites: Phase I and II of the core. (fall, winter)

NURS 481 Interdisciplinary Core Course 3
Stress, Survival, and Adaptation
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 and/or winter)

NURS 482 Contemporary Concepts of Health and Healing 3 or 5
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 in Nursing 3
Integration of the liberal arts with nursing; incorporation of leadership, management and organizational theories into professional nursing practice. Critically examines ethical, economic, legal, political, and technological forces influencing nursing and health care delivery. Meets core requirement. Prerequisites: Core phase II, Nursing Level 2. (winter, spring) (formerly N 422)

NURS 491 Special Topics 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

See School of Nursing Handbook for clarification of Nursing Levels 1, 2, and 3.

School of Science and Engineering

Kathleen Mailer, PhD, Dean
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, civil engineering with a major in environmental engineering, or in electrical 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 program requirements is 2.50. A cumulative and major/program 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.

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-six 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	4
BIOL 470	General Ecology	5
BIOL 485	Cell Physiology	5
BIOL	Electives (not BIOL 101, 200, 210, or 220)	10

Senior Synthesis:

BIOL 494	Independent Experience	2 to 4
BIOL 495	Seminar	1

Choose one of the following two courses: 5

BIOL 235	Invertebrate Zoology
BIOL 252	Taxonomy of Flowering Plants

Choose one of the following four courses: ..... 4 or 5

BIOL 310	Comparative Vertebrate 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 Program 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 16

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 (1)
CHEM 232 Fundamental Organic Chemistry II (4)
CHEM 234 Fundamental Organic Chemistry I Lab II (1)

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
and 15 credits of biology electives, of which 10 credits must be in courses 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 must complete a bachelor's degree prior to beginning the teacher preparation program. They should discuss their major with their biology adviser to ensure that they are enrolled in the appropriate courses and must contact the School of Education for advising. Second endorsements are available in biology (24 credits) and general science (45 credits).

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. (fall, 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. (I-fall, 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 5

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 non-Mendelian inheritance, dominance, linkage, gene interactions, sex determination and sex linkage, polygenic inheritance, human medical genetics, and maternal effects. Four lectures per week. Prerequisites: BIOL 165, 166, and 167, or permission of instructor. (winter)

BIOL 252 Taxonomy of Flowering Plants 5

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 Vertebrate Embryology **5**
Early development of selected vertebrates 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 **5**
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 **5**
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 Plant Physiology **5**
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 200 or 300; CHEM 102 or CHEM 337, or CHEM 232. (spring, even years)

BIOL 422 Medical Microbiology **3**
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 165, 200/210; CHEM 102 or CHEM 337 or CHEM 232. (spring, odd years)

BIOL 440 Molecular Genetics **5**
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 **5**
Study 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 111; BIOL 165, 166, 167. Recommended: BIOL 235 or BIOL 252; PSYC 201. (fall)

BIOL 485 Cell Physiology **5**
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: Independent Experience **2 to 4**

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**

Follows BIOL 494. Each student orally presents the results of his/her independent experience 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 CHEM 415, CHEM 425, and seven 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.

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/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 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	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	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 450 Biochemistry I (4)
- CHEM 452 Biochemistry II (4)
- CHEM 456 Biochemistry III (3)
- CHEM 499 Undergraduate Research (1 to 6)

and special topics or independent study courses.

III. Other Program 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 Sound
PHYS 106 Electricity, Magnetism, and Thermodynamics
PHYS 107 Survey of Modern Physics

b. PHYS 200 Mechanics
PHYS 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 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 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

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 Program 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 three courses: ..... 3 or 5

CSSE 103	Introduction to Computers and Applications (5)
CSSE 104	Introduction to Computers and Applications (Macintosh) (5)
MATH 232	Multivariable Calculus (3)

Please Note: 1. A student is eligible for certification of the degree by the American Chemical Society if CHEM 415, CHEM 425, and seven additional credits of approved advanced work in chemistry are taken. 2. For students planning graduate work, MATH 232, MATH 233, MATH 234, PHYS 204, and PHYS 205, or CHEM 450, 452, and 456 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/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 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
CHEM 436	Advanced Organic Chemistry	3
CHEM 450	Biochemistry I	4
CHEM 452	Biochemistry II	4
CHEM 456	Biochemistry III	3

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 Program Requirements

BIOL 165	General Biology I	5
BIOL	Approved Electives (courses numbered 300-400)	10
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/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
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-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	1
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 450	Biochemistry I	4
CHEM 452	Biochemistry II	4
CHEM	Electives	1

III. Other Program 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
MATH 131	Calculus for Life Sciences	5
PHYS 105	Mechanics and Sound	5
PHYS 106	Electricity, Magnetism, and Thermodynamics	5

Choose one of the following two courses 5

CSSE 103 Introduction to Computers and Applications
CSSE 104 Introduction to Computers and Applications (Macintosh)

Please Note: Professional certification requires one year of internship in an accredited laboratory training program after completion of the degree.

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
Organic chemistry (200 level or above)		10
Additional chemistry elective (200 level or above)		5

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 discuss their major with their chemistry adviser to ensure enrollment in appropriate courses and must contact the School of Education for advising. Second endorsements are available in chemistry (24 credits) and general science (45 credits).

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 5

Survey of inorganic chemistry, treating the basic principles and descriptive material relevant to the health sciences. Four lecture and three laboratory hours per week. (winter)

CHEM 102 Introductory Organic and Biochemistry 5

Organic 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 110 Fundamentals of Chemistry 5

An introduction to chemistry designed for students with little or no preparation in science. Also for students desiring a review of high school chemistry prior to enrolling in CHEM 101 or CHEM 121. Four lecture hours and one three-hour lab per week. (fall, spring)

CHEM 121 General Chemistry I 4
CHEM 122 General Chemistry II 4
CHEM 123 General Chemistry III 4

1. Atomic and molecular structure, oxidation-reduction reactions, mass relationships, nuclear chemistry, periodic properties, acids, bases, ionic reactions. 2. Thermochemistry, gases, solutions, equilibria, kinetics. 3. Thermodynamics, electrochemistry, chemistry of metals and nonmetals. Four lecture hours per week. Prerequisites: CHEM 101 or 110 or high school chemistry for CHEM 121; 121 for 122; 122 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 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, 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 2

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 1 to 5

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)

CHEM 335 Organic Chemistry I 3
CHEM 336 Organic Chemistry II 3
CHEM 337 Organic Chemistry III 4
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 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 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. (I-fall, II-winter, III-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. (I-winter; II-spring)

CHEM 391 Special Topics 1 to 5
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 susceptability 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 450 Biochemistry I 4
Structure and function of amino acids, proteins, lipids, nucleaic acids. Mechanism of action of enzymes, bioenergetics, oxidative phosphorylation, and introduction to metabolism. Three lecture and four laboratory hours per week. Prerequisites: CHEM 219, C or better in CHEM 232 or CHEM 337. (fall)

CHEM 452 Biochemistry II 4
Biosynthesis of nucleic acids and proteins, biotechnology. Laboratory methods include: isolation and characterization of proteins, lipids, and nucleic acids; genetic analysis including preparation of genomic libraries, Southern blotting, restriction fragment length polymorphisms and polymerase chain reactions. Six laboratory hours per week and two lecture hours per week. Prerequisites: BIOL 165 (or permission of chair), CHEM 450 (winter)

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 450 (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 480 Interdisciplinary Core Course 3 to 5
Title and content change each term.

CHEM 490 Senior Synthesis **1 to 5**
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/program 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 core curriculum.

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
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	4
CEEGR 371	Water Resources I-Surface Water Hydrology	4
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 I	
CEEGR 449	Structural Design II	
b. CEEGR 474	Environmental Engineering II - Water Supply and Waste Water Engineering	
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 Program 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

Please Note: 1. Fundamentals of Engineering (FE) examination is required for graduation.
2. There is no room in the civil engineering program for free electives.

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 specialization in environmental engineering, students must complete a minimum of 45 credits in core curriculum and 192 credits total. A cumulative 2.5 grade point average is required, in addition to a 2.5 average in major/program 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 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
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 must earn a minimum of 45 credits in the core curriculum. See detailed core curriculum information 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	4
CEEGR 371	Water Resources I-Surface Water Hydrology	4
CEEGR 402	Engineering Economy	3
CEEGR 473	Environmental Engineering I-Fundamentals	5
CEEGR 474	Environmental Engineering II-Water Supply and Waste Water 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 Engineering
CEEGR 455	Foundation Design
CEEGR 472	Water Resources II-Ground Water System

III. Other Program 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 Biology
BIOL 165	General Biology I

Please Note: 1. Fundamentals of Engineering (FE) examination is required for graduation. 2. There is no room in the civil engineering program for free electives.

Civil and Environmental Engineering Courses

CEEGR 221 Strength of Materials I **4**
Mechanics of solid deformable bodies; relationships between the external forces acting on elastic bodies and the stresses and deformations produced. Members subjected to tension, compression, flexure, and torsion. Four lecture hours and one hour of recitation/quiz per week. Prerequisites: MMEGR 230, MATH 232. (fall, spring)

CEEGR 222 Strength of Materials Laboratory I **2**
Laboratory experiments on the mechanics of solid deformable bodies and the relationships between tension, compression, flexure, and torsion. Developing technical report writing skills; 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 **5**
Engineering measurements as applied to civil engineering. Survey methods and instruments, topographic maps, curves, and public land surveys. Four lectures and one laboratory period per week. Prerequisites: MATH 111, MATH 115, MMEGR 105. (spring)

CEEGR 323 Strength of Materials II **4**
Continuation of the mechanics of solid deformable bodies. Beam topics, stability of columns, combined stresses and strains, fatigue and energy relationships. Four lecture hours and one hour of recitation/quiz per week. Prerequisites: CEEGR 221, MATH 234. (winter)

CEEGR 324 Strength of Materials Laboratory II **2**
Laboratory experiments on the mechanics of solid deformable bodies and the stresses and deformations produced. Members under tension, compression, torsion, flexure, and buckling. Behavior of composite beam and indeterminate structures. Developing technical report writing skills; use of spreadsheets and computer graphics. Four hours per week. Pre- or co-requisite: CEEGR 323. (winter)

CEEGR 331 Fluid Mechanics **4**
Fluid statics and dynamics. Topics include fluid properties, continuity equation, energy equation, resistance phenomena, and hydropower. Pre- or corequisites: MMEGR 230, MATH 234. (fall, winter)

CEEGR 335 Applied Hydraulics **4**
Analysis and design of pipe systems. Applications and selections of pumps and turbines. Dynamic similitude and hydraulic modeling. Analysis of open channel flow and unsteady 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. Prerequisite: junior standing in engineering or permission of instructor. (spring)

CEEGR 351 Engineering Geology 3
Mineral composition of earth crust: types of rocks; structural geology; plate tectonics; seismicity, introduction to aerial photographs and geologic maps. External geologic processes that reshape the surface of the earth. Importance of geology in engineering projects. Three lecture hours per week.

CEEGR 353 Soil Mechanics 4
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 222, CEEGR 351, corequisite: CEEGR 331. (winter) Offered for 3 credits until Fall 1998.

CEEGR 371 Water Resources I - Engineering Hydrology 4
Hydrologic 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) Offered for 3 credits until Fall 1998.

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 maintenance; interest rates, present worth and prospective return on investment; depreciation and replacement studies. Prerequisite: senior standing. (fall, winter)

CEEGR 403 Project and Systems Management 5
Introduction to project and construction management. How to plan and organize these services. Network scheduling, contracting procedures, risk, analysis, and estimating. Prerequisite: senior standing.

CEEGR 445 Structural Mechanics **5**
Classical and matrix methods in structural mechanics. Basic structural theory in both classical and matrix notation. Introduction to structural computer programs. Prerequisite: CEEGR 323. (fall)

CEEGR 447 Structural Design I **5**
CEEGR 449 Structural Design II **5**
Design of basic structural members and connections. Specific structural design building codes. I. Steel design. II. Reinforced and prestressed concrete design. Prerequisite: CEEGR 445. (I. winter, II. spring)

CEEGR 455 Foundation Design **4**
Design considerations for foundations. Introduction to bearing capacity theory and lateral earth pressures. Design of shallow and deep foundations. Design of retaining walls, temporary earth retaining structures, and engineered soils. Soil stability analysis. Subsurface investigation for determining soil properties. Prerequisite: CEEGR 353.

CEEGR 461 Introduction to Urban Transportation Engineering **4**
Presentation of urban modes. Introduction to planning. Environmental issues and citizen participation. Three lectures and three engineering design laboratory hours per week. Prerequisite: senior standing.

CEEGR 463 Transportation Planning **4**
Historical background. The planning process. Goals and objectives. Models. Impact of transportation decisions. Benefit/cost. Legal and political issues. Three lectures and three engineering design laboratory hours per week. Prerequisite: CEEGR 461.

CEEGR 465 Fundamentals of Traffic Engineering **3**
Terminology. Traffic control studies. Traffic control concepts on urban street systems. Surveillance. Detectors. Local controllers. Design plans and specifications. Three lectures per week. Prerequisite: CEEGR 463.

CEEGR 466 Traffic Engineering Laboratory **2**
Experiments with the 15 Eagle Signal Traffic Controllers mounted on a frame to control the traffic flow in street system. The present street system is Waycross, Georgia. One four-hour lab per week. Corequisite: CEEGR 465.

CEEGR 472 Water Resources II - Applied Hydrology **4**
Geologic and hydrologic occurrence of ground water. Analytical solutions for ground water flow. Hydraulics of radial flow and pumping systems. Reservoir capacity, operation and sedimentation. Prerequisite: CEEGR 371. (fall)

CEEGR 473 Environmental Engineering I - Fundamentals **5**
Theoretical and experimental studies of physical, chemical, and biological processes. Mass balance analysis. Four lectures and one laboratory or field trip per week. Prerequisites: CHEM 121, CHEM 131. (fall)

CEEGR 474 Environmental Engineering II - Water Supply and Waste Water Engineering **5**
Physical, chemical, and biological process design for water supply and waste water treatment. Four lectures and one laboratory or field trip per week. Prerequisite: CEEGR 473. (winter)

CEEGR 475 Solid and Hazardous Waste Engineering 5
Regulatory considerations, programmatic criteria, and remediation technologies. Four lectures and one laboratory or field trip per week. Prerequisite: CEEGR 473, CEEGR 474, or permission of instructor. (spring)

CEEGR 476 Environmental Law and Impact Studies 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. Prerequisite: senior standing or permission of instructor. (winter)

CEEGR 477 Selected Topics in Environmental Engineering 5
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. Prerequisite: senior standing in engineering or science, or permission of instructor.

CEEGR 485 Cold Regions Engineering 4
Engineering considerations in design of structures, utilities, and other facilities under cold climate conditions. Prerequisite: Senior civil engineering standing. (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. Prerequisite: Senior standing. 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 Special Topics 1 to 5
CEEGR 493 Special Topics 1 to 5

CEEGR 496 Independent Study 1 to 5
CEEGR 497 Directed Reading 1 to 5
CEEGR 498 Directed Research 1 to 5

Computer Science/Software Engineering

Everald E. Mills, Ph.D., Acting Chair
David Umphress, Ph.D., Director, Software Engineering

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/program 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. The GRE score must be sent to the CSSE Department, and must be received by the department at least two months prior to the graduation date.

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/program 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-five 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	4
CSSE 488	Software Engineering & Project Development II	4
CSSE 489	Software Engineering & Project Development III	4
CSSE	Electives (400 level)	10

III. Other Program Requirements

MATH 134	Calculus and Analytic Geometry I	5
MATH 135	Calculus and Analytic Geometry II	5

Choose one of the following two courses:

MATH 222	Discrete Structures	5
MATH 310	Introduction to Advanced Mathematics	5

Choose one of the following two courses:

MATH 244	Fundamentals of Probability and Statistics.	5
MATH 351	Probability	5

*Area of Application	30

*Bachelor of arts degree students must complete a coordinated group of application area courses. These courses must include at least 30 credits of courses in an area of proposed application of computer science. These 30 credits may be those prescribed for a minor in another department, but may not include any credits already required by the Computer Science Department for the bachelor of arts degree. In areas of application where a minor is not prescribed, the Computer Science Department will define the acceptable application area courses, with the assistance of the appropriate departments.

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 arts degree. The GRE score must be received by the department at least two months prior to the graduation date for approval to graduate.

Bachelor of Science in Computer Science
Major in Computer Science

The bachelor of science in computer science degree (BSCS) requires students to complete at least 180 quarter credits with both a cumulative grade point average and a major/program grade point average of 2.5 or better (see 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
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-five 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	4
CSSE 488	Software Engineering & Project Development II	4
CSSE 489	Software Engineering & Project Development III	4
CSSE	Electives (400-level)	15

III. Other Program Requirements

Forty-three credits in mathematics and physics, 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
Choose one of the following two courses:
MATH 222 Discrete Structures 5
MATH 310 Introduction to Advanced Mathematics 5

Choose one of the following two courses:
MATH 244 Fundamentals of Probability and Statistics 5
MATH 351 Probability 5

Please Note: 1. A minimum 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. The GRE score must be received by the department at least two months prior to the graduation date for approval to graduate.

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/track/program grade point average of 2.5 or better (see II, III, and IV below). Students must also achieve a minimum grade of 2.0 in all courses in the major and track 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-five 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	4
CSSE 488	Software Engineering & Project Development II	4
CSSE 489	Software Engineering & Project Development III	4
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 Program 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 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. The GRE score must be received by the department at least two months prior to the graduation date for approval to graduate. 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/program grade point average of 2.5 or better (see II and III below). Students must also achieve a minimum grade of 2.0 in all courses in the major and track 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
Lab Science 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

Sixty-five 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	4
CSSE 488	Software Engineering & Project Development II	4
CSSE 489	Software Engineering & Project Development III	4
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:

MATH 222	Discrete Structures	5
MATH 310	Introduction to Advanced Mathematics	5

Choose one of the following two courses:

MATH 244	Fundamentals of Probability and Statistics.	5
MATH 351	Probability	5

Choose three of the following courses:

MATH 361	Applied Mathematics I	5
MATH 371	Introduction to Numerical Methods	5
MATH 437	Introduction to Complex Variables	5
MATH 461	Applied Mathematics II	5

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 B.S. degree. The GRE score must be received by the department at least two months prior to the graduation date for approval to graduate.

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 planning to teach in elementary or secondary schools must complete a bachelor's degree prior to beginning the teacher preparation program. They should discuss their major with their computer science adviser to ensure that they are enrolled in the appropriate courses and contact the School of Education for advising. A second endorsement is available in computer science (24 credits).

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 104 Introduction to Computers and Applications (Macintosh) 5

An introduction to computers on the Macintosh. No prior experience with computers is assumed or required. The course includes an overview of computers and their applications to information processing. Students are introduced to the use of computers in word processing, spreadsheets, and database systems, and to elementary concepts of computer programming. Credit not granted for both CSSE 103 and CSSE 104.

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 co-requisite: 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 180 Intermediate Programming with COBOL 5
Continued development of programming skills through the writing, debugging, and testing of a number of intermediate level programs in COBOL. COBOL programming and data processing. Prerequisites: a C (2.0) grade or better in CSSE 151 or previous programming experience.

CSSE 191 Special Topics 1 to 5
CSSE 192 Special Topics 1 to 5
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 3
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 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, and either MATH 222 or MATH 310. (fall, spring)

CSSE 252 Computer Systems and Assembler Language 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 360 Introduction to Software Engineering **5**
Technical and managerial aspects of software development and maintenance. The software life cycle. Selected methodologies, techniques, and tools for software requirement specification, design, coding, and testing. Prerequisite: C (2.0) grade or better in CSSE 310.

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 Operating Systems **5**
Basic concepts of operating systems, including machine structures, dynamic processes, system structures; memory management, I/O 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 producer-consumer 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 curve-fitting and display. Creating three-dimensional graphic displays, shading, and shadowing algorithms. Prerequisites: CSSE 310, MATH 233.

CSSE 470 Artificial Intelligence **5**

Topics include representations of data, knowledge, and algorithms, search strategies, 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 Project Development I **4**
CSSE 488 Software Engineering and Project Development II **4**
CSSE 489 Software Engineering and Project Development III **4**

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: CSSE 308 and 380, plus permission of the department. 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**

CSSE 499 Senior Project **5**
This course is to be an integrative project for the CSSE major. It should involve application of many of the concepts taught in previous courses to some significant current problem in computer science or its applications. As such, it may also involve significant interdisciplinary considerations. Prerequisites: a C (2.0) grade or better in CSSE 360 and CSSE 380. (formerly CSC 490)

Diagnostic Ultrasound

Andrea C. Skelly, MPH, RDCS, 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

Departmental candidacy must be achieved prior to being granted entry into the ultrasound specific courses. Due to the limited number of students that the program can accommodate, departmental candicacy is not automatic for those admitted into ultrasound as freshmen. Departmental candidacy is achieved by:

1. Successfully completing all required 100- and 200-level degree requirements with a combined grade point average of at least 2.3 and complying with the department progression, probation, and dismissal policies.
2. Attaining a positive progression review by the ultrasound admissions committee in winter of the sophomore year. Letters of reference and an essay describing the student's interest and motivation to study diagnostic medical sonography will be part of this review. (Please consult with the department.)

Students are encouraged to participate in volunteer or paid 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. This, combined with an overall and math/science grade point average higher than the minimum standard, enhances the individual's chances of achieving departmental candidacy.

Only courses graded C (2.0) or better may be transferred into the department to offset degree requirements. Both cumulative and math/science grade point average must be at least 2.3 for graduation.

See Policy# 81-3 for additional information regarding progression, probation, readmission, and graduation requirements.

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 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) (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 (core interdisciplinary) 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 and certification. This internship is a part of the degree and follows after the academic course

requirements are met. Because of the professional nature of the program, qualities other than a good grade point average are required of internship candidates.
Please Note: Students must provide verification from a physician of good health and immunization prior to ultrasound specific courses.

III. Other Program 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
NURS 321	Pathophysiology I	3
NURS 322	Pathophysiology II	3
PHYS 350	Physics of Diagnostic Ultrasound	3

Choose one of the following two courses: 5
CSSE 103 Introduction to Computers and Applications
CSSE 104 Introduction to Computers and Applications (Macintosh)
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.: 10
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 111 and MATH 115 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: 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 cardiae 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 **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 **5**
Survey of cross section anatomy with emphasis on organs of body amenable to ultrasound diagnostic techniques. Prerequisites: BIOL 200 and 210. (fall)

DIUS 370 Health Care Management and Professionalism Issues **3**
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 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: permission. Corequisite: DIUS 487.

DIUS 474 Clinical Experience in Ultrasound I **8**
Five eight-hour days per week in an approved ultrasound department of a hospital. Prerequisite: permission. 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 other week. Students based outside Seattle area have projects assigned by correspondence, by the faculty and staff. Prerequisite: permission. 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: permission. 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 O. Neudorfer, PhD, 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 from the areas of mathematics, physics, and the other natural sciences, as well as other branches of engineering.

The electrical engineering program strives to provide a broad foundation based upon mathematical and scientific principles that will prepare the graduate for a productive lifelong career in any of the various sub-fields of the electrical engineering profession. The Electrical Engineering Department is teaching oriented and offers an undergraduate program that focuses on an integrated, traditional perspective of the electrical engineering profession.

The curriculum spans the subspecialties of electrical engineering with courses in communications and control theory, digital systems and signal processing, microprocessors, electrical and electronic circuits, electromagnetic fields and waves, engineering design, networks, and power generation and distribution. Students interested in careers in any specialty within the broad confines of electrical engineering are given sufficient preparation in well-balanced programs of study. The hallmark of the senior year is the capstone engineering design experience, in which student design teams work on multi-disciplinary engineering design projects.

The electrical engineering program provides an integrated base for those graduates who choose to enter professional practice in electrical engineering directly upon graduation and a rigorous preparation for those who choose graduate study in electrical engineering.

Degree Offered

Bachelor of Science in Electrical 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 CHEM, CSSE, EEGR, ME, MATH, and PHYS courses and ENGL 110 with a combined grade point average of at least 2.50. Only courses graded C (2.0) or better may be transferred into the department to offset degree requirements; only 100- and 200-level courses will be transferred.

A minimum 2.5 cumulative grade point average is required for graduation as well as a minimum 2.5 grade point average in Seattle University courses in computer science, physics, mathematics, and engineering.

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).

Electrical Engineering Curricular Blocks

Courses taken to fulfill requirements toward the bachelor's in electrical engineering degree are grouped together into four interrelated curriculum blocks. The engineering common studies program, including the university core curriculum, lower division science and engineering courses, and senior design, is essentially standard across the Departments

of Civil and Environmental, Electrical, and Mechanical and Manufacturing Engineering; the capstone design sequence is multi-disciplinary in character and thus cuts across departmental lines. The electrical engineering core curriculum forms the scientific foundation upon which all advanced electrical engineering courses are built. These courses are EEGR 201, 210, 311, 312, 320, 321, 327, 328; PHYS 205 and 330. The electrical engineering advanced requirements (EEGR 304, 331, 360, 403, 450, 457, and 467) extend the electrical engineering core in specific technical directions. The electrical engineering advanced electives are offered on a variety of topics. The specific elective offerings are governed by student interest and availability of faculty resources; topics not listed by course number may be offered as special topics. Please refer to the Electrical Engineering Student Handbook for additional information on advising and approved elective courses in other science and engineering disciplines.

Bachelor of Science in Electrical Engineering

In order to earn the bachelor of science in electrical engineering degree, students must complete 192 quarter credits with a cumulative and major/program grade point average of 2.5, including the following:

I. Core Curriculum Requirements

Students majoring in electrical engineering must complete a minimum of 45 credits in the core curriculum.

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
Theology and Religious Studies Phase II (200-299)		5
Ethics (upper division)		5
Theology and Religious Studies Phase III (300-399)		5

See detailed core curriculum information in this bulletin.

II. Major Requirements

Seventy-eight credits in electrical engineering, including:

EEGR 201	Digital Operations and Computation	4
EEGR 210	Electrical Circuits I	4
EEGR 304	Microprocessor Design	4
EEGR 311	Electrical Circuits II	4
EEGR 312	Linear System Analysis	4
EEGR 320	Electronics I	5
EEGR 321	Electronics II	5
EEGR 327	Electrical Circuits Laboratory	2
EEGR 328	Electronic Circuits Laboratory	2

EEGR 331	Distributed Systems	4
EEGR 360	Communication Systems	4
EEGR 403	Digital Signal Processing	4
EEGR 450	Electromechanical Energy Conversion	4
EEGR 457	Electromechanical Energy Conversion Lab	2
EEGR 467	Communications Lab	2
EEGR 487	Engineering Design I	4
EEGR 488	Engineering Design II	4
EEGR 489	Engineering Design III	4
EEGR	Electives	12

III. Other Program Requirements

CEEGR 402	Engineering Economy	3
CHEM 121	General Chemistry I	4
CHEM 131	General Chemistry Lab I	1
MMEGR 105	Engineering Graphics and Design	3
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
PHYS 205	Introduction to Quantum Physics	3
PHYS 330	Electromagnetic Field Theory	5
	Free Elective	2

Choose one of the following two courses: 3
- CSSE 230 FORTRAN for Engineers
- CSSE 231 C Programming for Science and Engineering

Choose option a., b., or c. ..... 5 or 10

a. MMEGR 215 Statics/Dynamics (5)

b. MMEGR 210 Statics (5)
MMEGR 230 Dynamics (5)

c. MMEGR 210 Statics (5)
PHYS 310 Intermediate Mechanics I (5)

Please Note: 1. No transfer credit is allowed for EEGR 300- or 400-level courses. 2. The Fundamentals of Engineering examination is required for graduation. 3. There is no room in the electrical engineering program for free electives.

Minor in Electrical Engineering

In order to earn a minor in electrial engineering students must take the following courses totaling 30 credits:

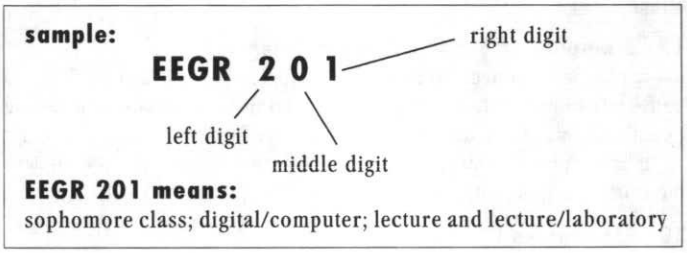
EEGR 201	Digital Operations and Computation	4
EEGR 210	Electrical Circuits I	4
EEGR 311	Electrical Circuits II	4

EEGR 312	Linear System Analysis	4
EEGR 320	Electronics I	5
EEGR 321	Electronics II	5
EEGR 327	Electrical Circuits Laboratory	2
EEGR 328	Electronic Circuits Laboratory	2

See policy for minors on page 43.

Electrical Engineering Courses

Please Note: All courses are numbered under a system which relates the technical content of lecture and laboratory courses to subfields of the electrical engineering profession. 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 identifies lecture and laboratory courses as well.



Left Digit	Middle Digit	Right Digit
1 Freshman	0 Digital/Computer	0-6 Lecture and lecture/ laboratory
2 Sophomore	1 Circuits	7-9 Laboratory
3 Junior	2 Electronics	
4 Senior	3 E/M Fields	
	4 Controls	
	5 Power/Energy	
	6 Communications	
	7 Measurements	
	8 Design	
	9 Independent Study/Special Topics	

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 and assembly language. No prerequisites. (fall, spring)

EEGR 210 Electrical Circuits I **4**

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. Prerequisites: MATH 233, PHYS 201. Corequisite: MATH 234. (fall, spring)

EEGR 296 Directed Study **1 to 5**

EEGR 304 Microprocessor Design **4**
Design of electrical digital components and systems that employ microprocessors. Assembly language programming, peripheral access, memory, interfacing the microprocessor to the external system. Three lectures and one four-hour laboratory. Prerequisites: EEGR core curriculum, or CSSE 251. (fall, winter, spring)

EEGR 311 Electrical Circuits II **4**
Phasors and impedance; Laplace transforms; system functions and the s-plane; analytical and graphical techniques of frequency response description, Bode diagrams; two-port analysis; AC power; introduction of the digital computer in circuit analysis and design. Prerequisite: EEGR 210 and departmental candidacy. (fall, winter)

EEGR 312 Linear System Analysis **4**
Linear systems and response type classifications. System functions. Impulse response. Convolution. Fourier series and transforms. Signal spectra. Prerequisite: EEGR 311. (winter, spring)

EEGR 315 Elements of Electrical Engineering **5**
An introductory course to subjects of electrical engineering. Basic circuit theory; linear systems; steady-state solutions; Laplace transform and transient analysis; Boolean algebra, logic gates, combinational and sequential logic; magnetic fields, transformers, and energy conversion. An introductory course for engineering and natural science students not majoring in electrical engineering. Prerequisites: MATH 234 and PHYS 201. (fall, winter)

EEGR 320 Electronics I **5**
Analysis and design of elementary electronic circuits, including linear circuits, operational amplifiers, non-linear circuits, and digital circuits. Introduction to bipolar and field effect devices and characteristics. Corequisite: EEGR 311. (fall, winter)

EEGR 321 Electronics II **5**
Continuation of EEGR 320. Transistor amplifiers, frequency response, feedback, analog integrated circuits, introduction to oscillators, introduction to logic families. Prerequisite: EEGR 320. (winter, spring)

EEGR 327 Electrical Circuits Laboratory **2**
A laboratory covering the principles of electrical and electronic circuits. Electronic instrumentation and general practice. Principles of technical communication. One-hour lecture and one four-hour laboratory per week. Corequisites: EEGR 311 and EEGR 320. (fall, winter)

EEGR 328 Electronic Circuits Laboratory **2**
Continuation of EEGR 327. Emphasis on solid-state circuits, both analog and digital. Prerequisite: EEGR 327. 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 core curriculum. (spring)

EEGR 360 Communication Systems **4**
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 core curriculum. (spring)

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 core curriculum. (fall)

EEGR 404 Introduction to VLSI Circuit Design 4

An introduction to the design of very large scale integrated circuits using engineering workstations and silicon compiling software. Aspects of the design, manufacture, and test will be covered in lecture. The laboratory will be used for the design of circuits, using the workstations and software. Three lectures and one three-hour laboratory per week. Prerequisite: EEGR core curriculum.

EEGR 405 Advanced Digital Design 4

Microprocessor-based systems design procedures; LSI circuit specs and interconnect design; programmable logic; logic simulation; prototype construction; system debug techniques; hands-on design carried out in teams. Prerequisites: EEGR core curriculum, EEGR 304.

EEGR 414 Active Networks and Filters 4

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 core curriculum.

EEGR 424 Power Electronics 4

Basic topologies and operating principles of switching power converters. Half-wave, bridge, and polyphase rectifies circuits. Phase control converters. Output control and dynamic models. Prerequisite: EEGR 320.

EEGR 432 Microwave Systems 4

Propagation of electromagnetic waves and interaction with materials, guided waves, and passive and active devices, microstrip and integrated circuits. Prerequisite: EEGR core curriculum. Corequisite: EEGR 331.

EEGR 433 Introduction to Antennas 4

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. Course includes laboratory and in-field experiences. Prerequisiste: EEGR 331.

EEGR 440 Control Systems 4

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 core curriculum.

EEGR 450 Electromechanical Energy Conversion 4

Electromechanical energy conversion principles and design. Application and details of electromechanical devices, such as relays, transformers, rotating machinery, and special devices. Prerequisites: EEGR core curriculum. (fall)

EEGR 451 Power Systems 4

Analysis of power systems: symmetrical components, power system parameters, steady-state operation, faults, economic operation. Prerequisites: EEGR core curriculum, EEGR 450. Corequisite: EEGR 331.

EEGR 457 Electromechanical Energy Conversion Laboratory 2
A laboratory covering the principles and practice of electromechanical energy conversion devices. Prerequisites: EEGR core curriculum, EEGR 450. (winter)

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. For computer science majors and as an EEGR elective for electrical engineering majors. Prerequisite: EEGR 201 or CSSE 251. (spring)

EEGR 462 Modern Optics 4
An introduction to modern optics consisting of Huygens principle, diffraction, Fourier optics and image processing, optical cavities, interferometry, planar waveguides, integrated optics, and fibers. Prerequisites: EEGR core curriculum; or PHYS 205 and PHYS 330.

EEGR 463 Wireless Communications Systems 4
An introduction to issues and problems associated with modern wireless communications systems. Radio wave systems. Multipath and fading. Robust digital communications, voice coding. Frequency planning. Cellular communications. Registration. Prerequisite: EE core curriculum.

EEGR 467 Communications Laboratory 2
A laboratory covering basic principles of encoding, modulation, and transmission of electronic signals. One-hour lecture and one four-hour laboratory per week. Prerequisites: EEGR core curriculum, EEGR 331. Corequisite: EEGR 360. (fall)

EEGR 487 Engineering Design I 4
EEGR 488 Engineering Design II 4
EEGR 489 Engineering Design III 4
Team design project focusing on project organization and management, principles of engineering design, oral and written communication, and professionalism. In EEGR 487, student teams are formed and industrially sponsored projects assigned. Project proposals are written and presented. In EEGR 488 and 489, problem solutions are developed and implemented, culminating in a formal presentation of results. Two one-hour lectures per week in addition to individual team design time. The three courses must be taken as a continuous sequence and fulfill the senior synthesis requirement. Prerequisite: advanced junior or senior standing in engineering. (487, fall; 488, winter; 489, spring)

EEGR 491 Special Topics 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

Janet Mills, PhD, Adviser

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

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/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 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 toward the major or minor fields.

CSSE Elective 5

Choose two courses from the following five 10

BIOL 165 General Biology I
BIOL 166 General Biology II
BIOL 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 I
CHEM 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 111 College Algebra
MATH 131 Calculus for Life Sciences (note: MATH 115 is prerequisite)

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 Sound
PHYS 106 Electricity, Magnetism, and Thermodynamics

b. PHYS 200 Mechanics
PHYS 201 Electricity and Magnetism

Please Note: At least 10 credits of the 90 general science required credits must be from 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 beyond the minimal degree requirements. The approved 200-level courses are CHEM 219, CHEM 231/233, CHEM 232/234, MATH 232, MATH 233, MATH 234, PHYS 202, PHYS 204, and PHYS 205.

*Fields allowed: biology, chemistry, diagnostic ultrasound, engineering (all engineering courses are one field), mathematics, physics, computer science, interdisciplinary science, and psychology (PSYC 201 and PSYC 330 only). See department for approved science electives.

Bachelor of Science in General Science Preprofessional Specialization

This track is for students interested in preparing for post-graduate programs in professions such as medicine, dentistry, pharmacy, osteopathic medicine, and veterinary medicine. In order to earn the bachelor of science in general science degree in the preprofessional track, students must complete a minimum of 180 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 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 111 College Algebra
MATH 131 Calculus for Life Sciences (MATH 115 is prerequisite)

b. MATH 131 Calculus for Life Sciences (MATH 115 is prerequisite)
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 as electives. 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 Science

In order to earn the bachelor of science in general science degree in the environmental science track, students must complete a minimum of 180 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 (choose one of the following two courses) 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 option a. or b. 5
a. PSYC 201 Statistics I

b. MATH 244 Probability and Statistics for the Sciences and Engineering

Choose option 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 111 College Algebra
MATH 131 Calculus for Life Sciences (MATH 115 is a prerequisite)

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. Those students planning to become elementary teachers or secondary earth science or general science teachers must complete a bachelor's degree prior to beginning the teacher preparation program. They should discuss their major with their adviser to ensure enrollment in appropriate courses and must contact the School of Education for advising. Second endorsements are available in earth science (24 credits) and general science (45 credits).

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 101 or 107 or above. This course is sponsored by the Electrical Engineering Department. (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 101, 107, or above. (fall) This course is sponsored by the Civil and Environmental Engineering Department.

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 101 or 107 or above.

ISSC 205 Biophysical Principles **5**

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 101 or 107 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 101 or 107 or above. (spring) This course is sponsored by the Mechanical and Manufacturing Engineering Department.

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. Prerequisite: MATH 101, 107, or above.

ISSC 209 Energy and Mineral Resources **5**

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. Prerequisite: MATH 101 or 107 or above.

ISSC 291 Special Topics **1 to 5**
ISSC 292 Special Topics **1 to 5**
ISSC 293 Special Topics **1 to 5**

ISSC 296 Directed Study **1 to 5**

ISSC 310 Evolution: Development of a Theory **5**

Basic statements and ideas of evolutionary theories from an interdisciplinary perspective. This will include both a historical perspective and a consideration of modern debates. Prerequisites: ISSC 110 and one laboratory science course; or two science courses, one with laboratory experience.

ISSC 315 Mineralogy **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 111, CHEM 121, 131, 122, 132. This course is sponsored by the Civil and Environmental Engineering Department.

ISSC 320 Geology and Mineralogy of the Pacific Northwest **2**

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. Prerequisites: junior standing or higher, PHIL 220; HIST 120 or 121.

ISSC 480 Interdisciplinary Core Course **3 to 5**

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. (spring) (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

Carl E. Swenson, 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 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/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
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 I
MATH 431 Introduction to Real Analysis I

III. Other Program Requirements

CSSE	Elective	5
Electives	(approved computer science,economics, psychology, or natural science.	15

(See academic adviser for approved courses.)
Please Note: All prerequisites for 300- and 400-level courses must be graded C (2.0), or better.

Bachelor of Science Major in Mathematics

In order to earn the bachelor of science degree with a major in mathematics, students must complete a minimum of 180 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

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 244 Fundamentals of Probability and Statistics
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 Program Requirements

CSSE Elective 5
Electives (approved computer science, engineering, natural science, or social science) 25
(See your academic adviser for approved courses.)

Please Note: All prerequisites for 300-400 level courses must be graded C (2.0), or better.

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/program 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 Structures
MATH 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 Program Requirements

CSSE Elective 5
Electives (approved computer science, economics or natural science) 15

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 C (2.0), or better.

Applied Mathematics Specialization

This specialization is appropriate for students planning to pursue a career in industry after graduation.

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 351	Probability
MATH 371	Introduction to Numerical Methods
MATH 437	Introduction to Complex Variables

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 Program Requirements

CSSE	Elective	5
Electives	(approved computer science, economics, or natural science)	15

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 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 must complete a bachelor's degree prior to beginning the teacher preparation program. Students seeking teacher certification in mathematics may complete the bachelor of arts degree using MATH 321 as an upper-division elective and substituting MATH 244 for five credits of upper-division course work.

A second endorsement is available in mathematics (24 credits). Students planning to become teachers must contact the School of Education for advising.

Proper Sequence for Taking Courses

The normal sequence of elementary mathematics courses is MATH 101; MATH 111 or MATH 118; 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 101, MATH 107, and MATH 200. A student may not receive credit for more than one course from each of the following groups: MATH 111 and 118; 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

A graphing calculator is required in all 100 level mathematics courses, except MATH 107.

MATH 085 Preparatory Mathematics **5**
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. (fall)

MATH 101 Intermediate Algebra **5**
Sets and numbers, polynomials, fractions, linear equations and inequalities, exponents, quadratic equations and inequalities; systems of equations; functions and graphing. Prerequisite: One year each of high school algebra and geometry. (fall, winter, spring)

MATH 107 Mathematics: A Practical Art **5**
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 111 College Algebra **5**
Inequalities, algebra of functions, graphs, exponential and logarithmic functions, theory of equations, mathematical induction, complex numbers. Prerequisite: a grade of C- or better in MATH 101, or qualifying examination. Credit not granted for both MATH 111 and MATH 118. (fall, winter)

MATH 115 Trigonometry **2**
Radian measure, trigonometric functions and their graphs, identities, trigonometric equations, inverse trigonometric functions. Prerequisite: a grade of C- or better in MATH 111 or 118, or qualifying examination. (fall, winter, spring)

MATH 118 College Algebra for Business **5**
Sets; relations and functions, graphing; linear, quadratic, exponential, logarithmic functions; systems of linear equations; inequalities; linear programming; applications to business. Prerequisite: a grade of C- or better in MATH 101, or qualifying examination. Credit not granted for both MATH 111 and MATH 118. (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. Prerequisite: a grade of C- or better in MATH 111 or MATH 118, or qualifying examination. (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. Prerequisite: a grade of C- or better in MATH 111 and MATH 115, or qualifying examination. (spring)

MATH 134 Calculus and Analytic Geometry I **5**
Limits and derivatives of rational, exponential, and trigonometric functions; applications of limits and derivatives. Computer laboratory component. Prerequisite: a grade of C- or better in MATH 111, or qualifying examination. Corequisite: MATH 115, 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. Prerequisite: a grade of C- or better in MATH 134. (fall, winter, spring)

MATH 136 Calculus and Analytic Geometry III **5**
Infinite series; Taylor's theorem; vectors; polar coordinates; solid analytic geometry. 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 101 or 107 or equivalent.

MATH 222 Discrete Structures **5**
Logic; set theory; equivalence relations and partitions; algebraic structures, including Boolean algebras; combinatorics; graph theory; applications to computer science. 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. Prerequisite: a grade of C- or better in MATH 136. (fall, winter, spring)

MATH 233 Linear Algebra **3**
Matrices, determinants, vector spaces, linear transformations, eigenvalues. 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 of odd years, winter, spring)

MATH 244 Probability and Statistics for the Sciences and Engineering **5**

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. (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 odd 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 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 **5**

Introduction to numerical methods for solving differential equations, phase plane analysis of nonlinear differential equations. Introduction to modeling. Computer laboratory component. Prerequisite: MATH 234. (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 **5**

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**
MATH 392 Special Topics **1 to 5**
MATH 393 Special Topics **1 to 5**

MATH 396 Directed Study **1 to 5**

MATH 411 Introduction to Abstract Algebra I **5**
MATH 412 Introduction to Abstract Algebra II **5**
Theory of groups, rings, fields, and field extensions; vector spaces and linear transformations; special topics. Prerequisites: permission of instructor 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; Riemann-Stieltjes integrals; sequences and series of functions; power series; uniform convergence. Prerequisites: permission of instructor for 431; 431 for 432. (offered in sequence: fall of odd years, winter of even years)

MATH 437 Introduction to Complex Variables **5**
The complex number system, analytic functions, integration, series, residues, conformal mapping. Prerequisite: MATH 234. (fall 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. (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

Jack Mattingly, PhD, 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 into the department 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:

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 (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 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 Program 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 for graduation. 2. The Fundamentals of Engineering (FE) examination is required for graduation. 3. There is no room in the mechanical engineering major for free electives.

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

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 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

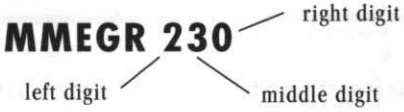
Please Note: 1. A minimum of 45 credits in core curriculum courses is required for graduation. 2. The Fundamentals of Engineering (FE) examination is required for graduation. 3. There is no room in the manufacturing engineering specialization for electives.

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	
	9 Special Topics and Independent Study	

Sample:



MMEGR 230 means: sophomore class; dynamics; first course

MMEGR 105 Engineering Graphics and Design 3

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 2

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. Design problem. Four lectures per week. Prerequisites: MATH 135, PHYS 200. (fall, winter)

MMEGR 215 Statics/Dynamics **5**
Vector algebra. Forces, resultants. Equilibrium. Free body diagrams. Equilibrium of rigid bodies. Centroids. Forces in cables. Rectilinear and curvilinear motions. Newton's second law. Energy and momentum methods. Systems of particles and rigid bodies. Plane motion and vibrations. Design problem. Five lectures per week. Students must pass a qualifying examination before proceeding to dynamics. Not open to MMEGR and CEEGR students. Prerequisites: PHYS 200, MATH 136. (winter)

MMEGR 230 Dynamics **5**
Vectors applied to kinematics and kinetics. Particle, system of particles, and rigid bodies related to translation, rotation, plane motion, relative motion, forces, impulse-momentum, work-energy. Design problem. Five lectures per week. Prerequisites: MMEGR 210, MATH 136. (winter, spring)

MMEGR 250 Materials Science **5**
Atomic structure. Metallic bond. Structure of metals and non-metals. Equilibrium diagrams. Time-dependent transformations. Relation of structure to properties. Elastic and plastic deformation. Four lectures, one three-hour laboratory per week. (Formerly MMEGR 350.) (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 **4**
Introduction to microcomputer structure. Basics of interfacing microprocessors with the real world. Applications: graphics, data acquisition, control, robotics. Design problem. Two lectures and one four-hour laboratory per week. Prerequisite: MMEGR 381. Corequisite: EEGR 315. (fall, spring)

MMEGR 321 Thermodynamics **4**
Thermal properties of ideal and real gases, liquids, vapors and mixtures. Conservation of energy. Second law. Conversion of thermal energy to work. Power, efficiency, cycles, compressible gas flow. Four lectures per week. (winter, spring)

MMEGR 324 Heat Transfer **4**
Heat transfer—conduction, convection and radiation. Conduction in one and two dimensions, steady state and transient. Forced and natural convection with phase change. Design problem. Four lectures per week. Prerequisite: MMEGR 321. Corequisite: CEEGR 331. (fall, spring)

MMEGR 342 Manufacturing Processes **3**
Overview 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 field trip per week. Prerequisite: MMEGR 250. (spring)

MMEGR 371 Machine Elements 5
Advanced strength of materials including combined loading, beams and columns, and an introduction to the finite element method. Introduction to statistics and reliability. Material failure including failure theories and an introduction to fracture mechanics and fatigue. Design of connections. Theory and use of common hand and machine tools. Four lectures and one three-hour laboratory per week. Prerequisite: CEEGR 221. Corequisite: MMEGR 250.(Formerly MMEGR 370.) (winter, spring)

MMEGR 372 Machine Elements II 4
Continuation of MMEGR 371. Fasteners, welds, springs, bearings, gears, clutches and brakes. Design problem. Four lectures per week. Prerequisite: MMEGR 371.

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. Corequisite: MMEGR 304.

MMEGR 421 Applied Thermodynamics 4
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 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, CEEGR 331. 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 4
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 5
Modeling of mechanical, thermal, hydraulic, pneumatic, and electrical linear and non-linear 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; Corequisite: MMEGR 324. (formerly MME 434 and MME 436) (fall)

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) 2
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, crack driving forces. Fast fracture. Impact fracture. Two lectures per week. Prerequisite: MMEGR 371.

MMEGR 461 Compressible Flow 4
One-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 4
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 & Dynamics of Machinery 4
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 3
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 one-hour lectures per week in addition to individual team design time. The three courses must be taken as a continuous 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 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/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 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 Program 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 a minimum of 180 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 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 Program 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 Physics

In 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
	Physics 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 planning to teach at the elementary or secondary school level must complete a bachelor's degree prior to beginning the teacher preparation program. Those students should discuss their major with their physics adviser to ensure enrollment in appropriate courses and must contact the School of Education for advising. Second endorsements are available in physics (24 credits) and general science (45 credits).

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 5
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 111, MATH 115 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 Survey of Modern Physics 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: MATH 115, MATH 134. (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. (winter, 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
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 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, winter)

PHYS 331 Electromagnetic Waves 3
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; Liaponov's method; strange attractors; nonlinear oscillations; perturbation theory; Lorenz equations; chaos; predictability; computer programming and graphics. Prerequisites: PHYS 202, MATH 234.

PHYS 350 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 363 Introduction 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 Modern Physical Measurement 4
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 Special Topics 1 to 5
PHYS 393 Special Topics 1 to 5

PHYS 396 Directed Study 1 to 5

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; p-n 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 Particle and Nuclear Physics 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 3
Capstone 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 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, 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), the Dental Admission Test (DAT), and Optometry Admission Test (OAT) are administered locally twice a year. The Graduate Record Exam (GRE) is 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.

Culture and Language Bridge Program

Mary Geary, MA, Coordinator/Instructor

Objectives

The Culture and Language Bridge Program is a comprehensive program designed for non-native speakers of English. It focuses on the development of all aspects of language and communicative competence in an academic environment. The program is offered during the fall, winter, and spring quarters. There is no undergraduate program offered in the summer. The Culture and Language Bridge Program offers follow-up and referral services throughout the year for students who have completed the program.

The Culture and Language Bridge Program has two sections: freshman and transfer.

The freshman section is a quarter-long, 12-credit program which concentrates on academic writing, reading, speaking and listening skills, as well as cultural adjustment to university life. The transfer section is a 10-credit program designed for non-native English speaking transfer students. This section focuses on advanced academic English in all skill areas. Students in the transfer section also attend a supplemental class in conjunction with a five-credit class in either business or philosophy. Students may take an additional five-credit class of their choice.

Admission Requirements for Undergraduates

All non-native speakers of English whose TOEFL (Test of English as a Foreign Language) score is between 520 - 579 (with a minimum score of 52 in each subsection) will be required to participate in the Culture and Language Bridge Program during their first quarter at Seattle University. Those students whose TOEFL scores are between 565 - 579 may take a proficiency test to determine the extent of their participation in the program.

Program Requirements

In the freshman section, students must obtain at least a B- in each of the Culture and Language Bridge Program courses in which they are enrolled. Upon successful completion of the freshman section of the CLB program, students will receive five elective credits toward graduation (for the ENGL 101 course completed). The remaining seven credits for the Classroom Communication, Academic Reading and Writing, and Language Lab courses do not count toward a degree program or graduation requirements. The grades will be shown on the student's transcript, but will not be figured into the student's grade point average.

In the transfer section, students must complete Advanced Language and Communication with a minimum B- grade which will appear on the student's transcript but will neither count toward the grade point average nor apply toward graduation requirements. In addition, students will take either MGMT 280 or the appropriate philosophy course and a supplemental component. The MGMT 280 and the philosophy courses apply toward graduation and the grade point average; the supplemental component does not.

Culture and Language Bridge Program Courses

FRESHMAN SECTION

CLBR 087 Academic Reading and Writing **3**
Examines the interaction between reading, writing, and critical thinking. Focuses on paraphrasing, summary writing, library research and the writing process as it pertains to American academic writing. Concentrates on the practice of reading effectively. Issues of sentence structure and style will also be addressed. Does not contribute to degree credits. Must achieve minimum grade of B-.

CLBR 088 Classroom Communication **3**
Examines the interaction of culture and language in the classroom. Focuses on informal vs. formal English, lecture comprehension, classroom participation, intelligibility, and oral presentations. Does not contribute to degree credits. Must achieve minimum grade of B-.

CLBR 089 Language Lab **1**
Examines American culture through the use of English in a practical setting. Does not contribute to degree credits. Must achieve minimum grade of B-.

TRANSFER SECTION

CLBR 090 Advanced Language and Communication **5**
The examination and use of advanced English with a concentration on achieving integration and fluency of the language in writing, speaking, communicating, reading, vocabulary development and integration, and critical thinking. Required supplemental work is a component of this course. Does not contribute to degree credits. Must achieve minimum grade of B-.

CLBR 091 Supplemental CLRB **0**
CLBR 092 Supplemental CLRB **0**
CLBR 093 Supplemental CLRB **0**
Required student-centered workshops including lecture and discussion in support of academic courses. Mandatory CR/F grading with minimum achievement level equal to B-.

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 providing them with the opportunity to elevate 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

University applications of students who do not meet the standard admission requirements of the university are reviewed by the Early Success Program Office. Students who are given the option to apply for ESP go through a rigorous application process, including a supplemental application, a short essay, and a phone interview.

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: Students 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 will focus heavily 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 will 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

Robert Spitzer, S.J., Director

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 would 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 296-2135 or Fr. Spitzer at 296-5470.

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. 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

Albers School of Business and Economics
- Master of Arts in Applied Economics
- Master of Business Administration
- Master of International Business
- 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
- Master of Science in Nursing

School of Science and Engineering
- Master of Software Engineering

Institute of Public Service
- Master of Public Administration
- Master of Not-For-Profit Leadership

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)

Information

For admission, program requirements, and information on specialized tracks, see the *Graduate Bulletin of Information* or contact the Admissions Office, Seattle University, Broadway and Madison, Seattle, WA 98122-4340, telephone: (206) 296-5900; fax: (206) 296-5902; Internet: http://www.seattleu.edu.

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Virginia L. Parks, PhD
Associate Vice President
Information Services
Jerome C. Pederson, MBA
Director
Administrative Services
Anna E. Sarton
Assistant Vice President
Human Resources
Affirmative Action Officer

Academic Affairs

John D. Eshelman, PhD
Provost
James Bond, SJD
Dean
School of Law
Sue Schmitt, PhD
Dean, School of Education
Loretta Jancoski, PhD
Dean
School of Theology and Ministry
Edward J. Jennerich, PhD
Associate Provost
Betsey Barker Klein, BA
Director
Liberal Studies
Kathleen Mailer, PhD
Dean
School of Science and Engineering
John Popko, MSLS
University Librarian
Rev. Stephen C. Rowan, PhD
Dean
College of Arts and Sciences
Arthur L. Fisher, PhD
Dean
Matteo Ricci College
Dannette Sullivan, MEd
Registrar
Luth M. Tenorio, PhD
Dean
School of Nursing
C. Frederick DeKay, PhD
Acting Dean
Albers School of Business and Economics
James White, BA
Director
Financial Aid
Michael McKeon, MA
Dean
Undergraduate Admission

Student Development

Henry F. Durand, PhD
Vice President
Student Development

Nancy Gerou, EdD
Associate Vice President
Student Development
Director
University Sports

Rick Bird, MBA
Associate Director
Residential Life
Director of Auxiliary Services

Anne Carragher, MPA
Associate Director
University Sports

Mary Romer Cline, MDiv
Director
Campus Ministry

Faizi Ghodsi, MBA
Executive Director
Student Services Team
Director
International Student Center and
Minority Student Affairs

Helen A. LaBouy, MBA
Director
Career Development Center

Mark Long, BA
Coordinator
Volunteer Center

Howard H. Morishige, PhD
Director
Counseling Center/Student Health Center

Laurie Prince, MEd
Director
New Student Programs

Carol Schneider, MA
Director
Learning Center/Disabilities Services

Judith Lee Sharpe, MA
Director
Residential Life

Mark Shaw, MS
Coordinator
Wellness and Prevention Center

Elizabeth Skofield, MA
Director
Pathways

TBA
Director
Center for Event Planning and
Student Activities

University Relations

Linda N. Hanson, MA
Vice President
University Relations

J. Paul Blake, BA
Assistant Vice President
Director
Public Relations

Mark Burnett, MPA
Assistant Vice President
Director
Alumni Relations

Cecelia Gramblin, BA
Director
Information Services

William F. LeRoux, S.J., MA, STD
Assistant to the Vice President

Judy K. Mahoney, MBA
Director
Development

Chris Nordfors, BA
Director
Publications

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)
Assistant 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)
Associate 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)
Assistant Professor of Nursing
BSN, University of Virginia; MN, University of Washington; PhD, 1993, Oregon Health Sciences University

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

Gary L. Atkins, MA (1978)
Chair, Communication Department
Associate Professor of Journalism
AB, Loyola University; MA, 1972, Stanford University

Vidya Awashti, PhD (1996)
Assistant Professor of Accounting
BS, Meerut University, 1994; MA, Meerut University, 1976; MBA, California State University, Fresno, 1984; PhD, University of Washington, 1988

Gregg Y. Ayakawa, PhD (1991)
Assistant Professor of Biology
BA, MLSC, University of Hawaii, PhD, 1983, University of Hawaii

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)
Associate Professor of Education
BA, University of Oregon; MAT, University of Portland; PhD, 1983, University of Oregon

Karen A. Barta, PhD (1983)
Associate 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

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
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 Institute of Theological Studies
BA, Gonzaga University; MDiv, Jesuit School of Theology, Berkeley

Hamida H. Bosmajian, PhD (1966)
Chair, Honors Program
Professor of English
BA, University of Idaho; MA, University of Connecticut; PhD, 1968, University of Connecticut

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)
Assistant 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

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

Maria Carl, PhD (1996)
Assistant Professor of Philosophy
BA, St. Mary's College, California (1975)
PhD, Marquette University, 1989

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

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 (1996)
Instructor of Theology and Religious Studies
BD, Chinese University of Hong Kong, 1989; MA University of Chicago, 1990; PhD Candidate, 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

Terry Cicero, MSN (1993)
Instructor of Nursing
BSN, Eastern Washington University; MSN, 1982, University of Washington

Annette Clark, MD, JD (1989)
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)
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)
Assistant Professor of Mechanical Engineering
BA, Wesleyan University; MLSC, PhD, 1986, Columbia University

John Culbertson, DBA (1989)
Instructor of Administration
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

Thomas W. Cunningham, PhD (1959)
Professor of Psychology
BA, Seattle University; MLSC, PhD, 1966, University of Portland

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

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)
Acting 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

Patricia Dilley, JD (1993)
Assistant Professor of Law
BA, Swathmore College; MA University of Pennsylvania; JD, 1986, Georgetown University Law Center

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

Diane M. Durnam, PhD (1985)
Research Assistant Professor of Chemistry
BS, University of California; PhD, 1981, University of Washington

Mary B. Ehlers, PhD (1974)
Associate Professor of Mathematics
BA, BA in Ed, Western Washington State College; MA, PhD, 1969, Washington State 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

Mary Ersek, PhD (1991)
Assistant Professor of Nursing
BSN, Georgetown University; MN, PhD, 1991, 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

Carol K. Fillenberg, PhD (1992)
Associate Professor of Education
BS, MEd, PhD, 1977, Colorado State 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

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

John J. Gilroy, PhD (1982)
Associate Professor of Education
BA, MA, LaSalle College; MA, Middlebury College; PhD, 1972, University of Pittsburgh

Nirmala Gnanapragasam, PhD (1993)
Assistant Professor of Civil and Environmental Engineering
BSc, University of Moratuwa; MLSC, PhD, 1992, Northwestern University

Ki Gottberg (1995)
Assistant Professor of Drama
BA, Western Washington University; MFA, 1983, University of Washington

Robert B. Grimm, S.J., PhD (1986)
Chair, Business/Administration Department
Associate Professor of Business/Management; Rector
AB, Gonzaga University; MDiv, Weston School of Theology; MBA, New York University; PhD, 1986, University of Colorado

Kristin E. Guest, PhD (1981)
Professor of Education
BA, BS, University of Minnesota; MA, PhD, 1970, University of Wisconsin

Tomas Guillen, MA, (1994)
Assistant Professor of Communication and Journalism
BA, University of Arizona; MA, 1990, University of Washington

Reed A. Guy, PhD (1975)
Chair, Physics
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

Marilyn Harhai, MLS (1991)
Assistant Law Librarian
BS, University of Colorado; JD, University of Colorado Scool of Law; MLS, 1991, University of Pittsburgh

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)
Assistant 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

Max H. Hines, PhD (1993)
Associate Professor of Counselor Preparation
BS, University of Wisconsin, River Falls; MLSC, University of Wisconsin, Oshkosh; PhD, 1983, University of Minnesota

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)
Assistant 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 University; PhD, 1988, DePaul University

Patrick Howell, S.J., D Min (1986)
Associate Professor of Theological Studies and Theology/Religious Studies
BS, Gonzaga University; MA, Boston College; 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)
Assistant Professor of English
BA, University of Madras, Stella Maris College, India; MA, PhD, 1993, Purdue University

Susan C. Jackels, PhD (1995)
Professor of Chemistry
BA, Carleton College; PhD, 1972, University of Washington

Jean Jacoby, PhD (1991)
Clare Booth Luce Professor
Assistant 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)
Associate Provost
Professor of Education
BA, Trenton State College; MLSC, Drexel University; PhD, 1974, University of Pittsburgh

Dolores M. Johnson, PhD (1964)
Associate Professor of English
BA, MA, PhD, 1971, University of Washington

Garry R. Kampen, PhD (1985)
Associate Professor of Software Engineering
BA, Carleton College; MA, University of Michigan; PhD, 1973, University of Washington

Michael M. Kelliher, S.J., D Crim (1972)
Chair, Criminal Justice Department
Associate Professor of Sociology
AB, Gonzaga University; STB, University of Santa Clara; M Crim, D Crim, 1972, University of California at Berkeley

Michael G. Kennedy, PhD (1995)
Assistant Professor of Nursing
ADN, College of the Redwoods; BA, BSN University of Portland; MN, PhD, 1994, University of Washington

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)
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

John La Fond, JD (1974)
Professor of Law
BA, Yale University; JD, 1968, Yale Law School

Marianne LaBarre, MA (1987)
Director, Masters of Divinity/Masters of Theological Studies
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)
Assistant Professor of Sociology
BA, Whitman College; MA, PhD, 1981, New School for Social Research

Jacqueline Leibsohn, PhD (1991)
Assistant 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)
Assistant Professor of History
BA, Seattle University; PhD, 1981, University of Washington

Gregory M. Magnan, PhD (1992)
Assistant Professor of Business/Administration
BA, MBA, PhD, 1994, Michigan State University

Kathleen Mailer, PhD (1992)
Dean, School of Science and Engineering
Professor of Chemistry
BS, University of Toronto; MLSC, St. Francis Xavier University; PhD, 1970, University of British Columbia

Donald C. Malins, PhD (1971)
Research Professor of Chemistry
BA, University of Washington; BS, Seattle University; PhD, 1967, University of Aberdeen

Leonard B. Mandelbaum, PhD (1973)
Robert O'Brien Chair in Business
Professor of Business/Business Law
BA, Washington Square College; JD, Yale Law School; MA, PhD, 1974, American University

R. Maxime Marinoni, PhD (1964)
Professor of French
Licence, Universite de Grenoble; MA, PhD, 1975, University of Washington

David Marshak, EdD (1992)
Assistant Professor of Education
BA, Yale University; MAT, University of New Hampshire; EdD, 1985, Harvard University

Lynne (Lyn) M. Martin (1996)
Associate Librarian
BA, College of St. Rose, New York, 1975; MLS, University at Albany, State University of New York, 1985; Cert. of Advance Studies Candidate, University of Albany, State University of New York

Gregory S. Mason, PhD (1993)
Assistant Professor of Mechanical Engineering
BS, Gonzaga University; MLSC, Georgia Institute of Technology; PhD, 1992, University of Washington

Daniel B. Matlock, PhD (1984)
Associate Professor of Biology
BS, University of California; MLSC, PhD, 1978, Oregon State University

Jack D. Mattingly, PhD (1988)
Chair, Mechanical Engineering Department
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)
Instructor of History
BS, Milligan College; MLS, MA, 1988, Rutgers University

Thomas Miller, MLS (1993)
Assistant Law Librarian
BS, Pennsylvania State University; JD, Southern Illinois School of Law; MLS, 1993, University of Washington

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)
Mathematics Department
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

John Mitchell, JD (1991)
Clinical Associate Professor of Law
BA, University of Wisconsin, Madison; JD, 1970, Stanford Law School

Connie K. Morey, PhD (1994)
Assistant Professor in the Department of Curriculum and Instruction
BS, MLSC, PhD, 1992, University of Wisconsin, Madison

Michael A. Morgan, PhD (1984)
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

George L. Moutsiakis, PhD, (1994)
Assistant Professor of Psychology
BS, Dowling College; MA, PhD, 1994, Wayne State University

Susan E. Moyer, PhD (1995)
Assistant Professor of Accounting
BS, Lehigh University; MLSC, Graduate School of Management, University of Rochester; PhD, 1989, Graduate School of Business Administration, University of Rochester

Diane S. Murphy, PhD (1992)
Assistant Professor of Education
BS, Wheaton College; MLSC, Northern Illinois University; PhD, 1988, San Diego State University

Constance F. Nakao, PhD (1987)
Associate Professor of Nursing
BSN, MN, PhD, 1987, University of Washington

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
BA, University of Washington; MA, 1974, University of Iowa

Peter H. Nickerson, PhD (1984)
Associate Professor of Economics
BA, Washington State University; MA, PhD, 1984, University of Washington

Maureen Niland, PhD (1986)
Associate Professor of Nursing
BS, Arizona State University; MLSC, University of California, San Francisco; PhD, 1986, University of Washington

George Nock, JD (1974)
Professor of Law
BA, San Jose State University; JD, 1966, Hastings College of Law

Robert H. Novak, MLS (1981)
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)
Assistant 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

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 Business/Administration
BA, MA, Bogazici University, Turkey; PhD, 1993, Michigan State University

Barbara Parker, PhD (1991)
Associate Professor of Business/Administration
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

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

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

Ihsin T. Phillips, PhD (1985)
Director of Computer Software and Engineering in the Computer Science and Software Engineering Department
Associate Professor of Computer Science
BS, MLSC, PhD, 1984, University of Maryland

Jeffrey S. Philpott, MA (1992)
Instructor 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)
Assistant Professor of Business/Administration
BA, MBA, California State University, Chico; PhD, 1991, Arizona State University

Elayne Puzan, MSN (1997)
Assistant Professor of Nursing
BS, University or Oregon, 1973; AND, Lane Community College, 1980; MSN, Oregon Health Sciences University, 1990; PhD candidate, University of Massachusetts, Amherst.

Janet P. Quillian, PhD (1994)
Associate Professor and Director of the Master's Degree in Nursing
ADN, BSN, University of Nevada; MSN Texas Woman's University; PhD, 1982, University of Texas School of Public Health

Victor Reinking, PhD (1990)
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)
Assistant Professor of Education
BS, University of California at Riverside; MLSC, PhD, 1992, University of Washington

Jeanette Rodriguez-Holguin, PhD (1990)
Assistant 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)
Dean, College of Arts and Sciences
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)
Chair, Political Science
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

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
BA, Viterbo College, 1969; MEd, University of Missouri, 1971; EdD, Mississippi State University, Starkville, 1984; Harvard institute on Education Management, 1989

David W. Schroeder, PhD (1958)
Research Professor, Civil and Environmental Engineering
BChE, University of Detroit; MLSC, PhD, 1953, Carnegie Institute of Technology

Andrew Schulz, MPhil (1994)
Instructor 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 Dean, College of Arts and Sciences
Associate Professor of Theology and Religious Studies
BA, Rosary College; MDiv, STB, Loyola University; PhD, 1989, University of Chicago

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

Raquel Silva, MA (1990)
Instructor of Spanish
BA, MA, 1989, University of Washington

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

Andrea Celine Sledge, PhD (1992)
Associate Professor of Education
AB, Stanford University; MA, California State University, Sacramento; PhD, 1980, University of Arizona

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)
Assistant Professor of Economics and Finance
BA, University of Washington; AM, PhD, 1991, Harvard University

Mitchell Spector, PhD (1986)
Associate Professor of Computer Science
BS, John Carroll University; PhD, 1976, Massachusetts Institute of Technology

Robert Spitzer, S.J., PhD (1990)
Associate Professor of Philosophy
BBA, Gonzaga University; MA, St. Louis University; STB, Georgian University; PhD, 1989, The Catholic University of America

James L. Stark, DA (1972)
Associate Professor of German
BA, University of Portland; MA, DA, 1972, University of Washington

Anita Steele, MLL (1972)
Director of Law Library, Professor of Law
BA, Radcliffe College; JD, University of Virginia Law School; MLL, 1972, University of Washington

Jeffrey Stephens, PhD (1994)
Assistant 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;

Carl E. Swenson, PhD (1976)
Chair, Mathematics Department
Professor of Mathematics
BEd, Pacific Lutheran University; MA, PhD, 1972, Washington State University

Donna Sylvester, PhD (1990)
Assistant 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 Mississippi; BS, University of Michigan; MLSC, 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

Luth M. Tenorio, PhD, (1993)
Dean, School 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

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)
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

Alan Troy, PhD (1970)
Associate Professor of Mathematics
BA, BS, University of Chicago; MA, PhD, 1961, University of Illinois

David Umphress, PhD (1993)
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

Usha S. Varanasi, PhD (1971)
Research Professor of Chemistry
BSc, Bombay University, India; MLSC, California Institute of Technology; PhD, 1967, 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

Geoffrey Watson, JD (1991)
Associate Professor of Law
BA, Yale University; JD, 1986, Harvard Law School

Carol Weaver, PhD (1989)
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)
Assistant 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

Helen Wheatley, PhD (1993)
Assistant Professor of History
BA, MA, University of California, Santa Cruz; PhD, 1993, Johns Hopkins University

Dennis W. Wiedemeier, PhD (1985)
Associate Professor of Mechanical Engineering
BS, United States Air Force Academy; MLSC, PhD, 1976. University of Washington

Henry Wigglesworth, JD (1996)
Instructor of Legal Writing
AB, Harvard University, 1980; JD, University of New Mexico School of Law, 1988

Peter Wilamoski, PhD (1991)
Assistant Professor of Economics
BA, California State University, Sacramento; MLSC, PhD, 1991, University of Oregon

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

Geoff Willis, PhD (1994)
Assistant Professor of Business/Administration
BS, Vanderbilt University; MLSC, PhD, 1994, Texas Tech 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

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

Joyce V. Zerwekh, EdD, RN (1993)
Assistant Professor of Nursing
BSN, St. Olaf College; MA, New York University; EdD, 1990, Seattle University

Faculty Emeriti

Mary C. Bartholet, MS (1958)
Francis X. Bisciglia, S.J., MA (1963)
N. Jean Bushman, MN, (1960)
Donald M. Carmichael, LLM (1977)
Ben Cashman, PhD, (1962)
Chu Chiu Chang, MA (1956)
Louis K. Christensen, PhD (1965)
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)
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)
Marvin T. Herard, MFA (1960)
Hildegard R. Hendrickson, PhD (1967)
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)
Albert B. Mann, MA (1960)
Alexander F. McDonald, S.J., MA (Oxon) (1969)
J.W. McLelland, MA (1947)
Sister Mary Roberta McMahon, OP, PhD (1962)
Joseph B. Monda, PhD (1955)
John A. Morford, EdD (1973)
Ronald A. Peterson, JD (1950)
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)
John Talevich, MA (1955)
Michael J. Taylor, S.J., STD (1961)
Kathleen Treseler, CRN, MSN (1968)
Richard L. Turner, PhD (1963)
Robert F. Viggers, MS (1949)
Roy P. Wahle, EdD (1977)
Marylou Wyse, PhD (1965)
Anita Yourglich, PhD (1946)
Casimir E. Zielinski, EdD (1979)

Index of Topics

Indes of Discipline Codes

(Includes Graduate programs; exludes Law School)

ACCT	Accounting
ADST	Addiction Studies
AEDT	Adult Education and Training
ANTH	Anthropology
ART	Art
BIOL	Biology
BUEN	Business Environment
CEEGR	Civil and Environmental Engineering
CHEM	Chemistry
CLBR	Culture and Language Bridge
CMJR	Communication/Journalism
COUN	Education — Counseling
CRJS	Criminal Justice
CSSE	Computer Science/Software Engineering
CSSE	Software Engineering
CUIN	Education — Curriculum and Instruction
DIUS	Diagnostic Ultrasound
DRMA	Drama
ECON	Economics
ECST	Ecological Studies
EDAD	Educational Administration
EDLR	Educational Leadership
EDPD	Professional Development— Undergraduate
EDUC	Education
EEGR	Electrical Engineering
ENGL	English
FINC	Finance
FINR	Fine Arts
FREN	French
FRLG	Foreign Language
GERM	German
GREK	Greek
HIST	History
HONR	Humanities (Honors)
HRMA	Human Resources Management
HUMT	Humanities (Matteo Ricci College)
INBU	International Business
ISSC	Interdisciplinary Science (See General Science)
ISSS	Interdisciplinary Social Science
JPAN	Japanese
LATN	Latin
LBST	Liberal Studies
MATH	Mathematics
MBA	Master in Business Administration
MGMT	Management
MKTG	Marketing
MLSC	Military Science
MMEGR	Mechanical/Manufacturing Engineering
MUSC	Music
MVST	Medieval Studies Minor
NPLD	Not-for-Profit Leadership
NURS	Nursing
OPER	Operations
PHIL	Philosophy
PHYS	Physics
PLSC	Political Science
PSYC	Psychology
PUBM	Public Administration — Graduate Level
SDAD	Student Development Administration
SOCL	Sociology
SOCW	Sociology /Social Work
SPAN	Spanish
SPSY	Education — School Psychology
SABD	Study Abroad
STMA	Institute for Theological Studies
STMM	Institute for Theological Studies
TEED	Teacher Education
TRST	Theology and Religious Studies
TSOL	Teaching English to Speakers of Other Languages — Graduate Level
WMST	Women's Studies

1997-1998 Academic Year

Fall Quarter 1997

September 15 (Mon)	Tuition and Fees Due for Fall Quarter
September 24 (Wed)	All Classes Begin
October 1 (Wed)	Last Last Day to Register, Add/Drop or Change Grading Option
November 7-14 (Fri, Mon, Wed-Fri)	Advising Week for Winter 1998 Registration
November 11 (Tues)	Veteran's Day - No Classes
November 16 (Sun)	Advanced Registration - Winter, 1998 Begins
November 17 (Mon)	Last Day to Remove I Grades from Spring/ Summer 1997
November 17 (Mon)	Last Day to Remove N Grades from Fall, 1996
November 20 (Thurs)	Last Day to Withdraw with W grade
November 26-29 (Wed-Sat)	Thanksgiving - No Classes
December 1 (Mon)	Closing Date for Degree Applications
December 6 (Sat)	Last Class Day
December 8-13 (Mon- Sat)	Final Examinations
December 15 (Mon)	Tuition and Fees for Winter Quarter Due
December 17 (Wed)	Grades Due, 10:00 am

Winter Quarter 1998

January 5 (Mon)	All Classes Begin
January 12 (Mon)	Last Day to Register, Add/Drop or Change Grading Options
January 19 (Mon)	Martin Luther King's Birthday - No Classes (Sat., Jan 17 classes will meet as scheduled)
February 13 (Fri)	President's Day - No Classes (Sat., Feb. 14 classes will meet as scheduled)
February 23-26 (Mon-Th)	Advising Week for Spring 1998 Registration
February 27 (Fri)	Advance Registration - Spring, 1998 Begins
March 2 (Mon)	Last Day to Remove I Grades from Fall, 1997
March 2 (Mon)	Last Day to Remove N Grades from Winter, 1997
March 5 (Th)	Last Day to Withdraw with W Grade
March 16 (Mon)	Last Class Day
March 16 (Mon)	Tuition and Fees for Spring Quarter Due
March 17-21 (Tues-Sat)	Final Examinations
March 25 (Wed)	Grades due, 10:00 am

Spring Quarter 1998

March 30 (Mon)	All Classes Begin
April 6 (Mon)	Last Day to Register, Add/Drop or Change Grading Options
April 10 (Fri)	Good Friday - No Classes
April 11 (Sat)	Easter Holiday - No Classes

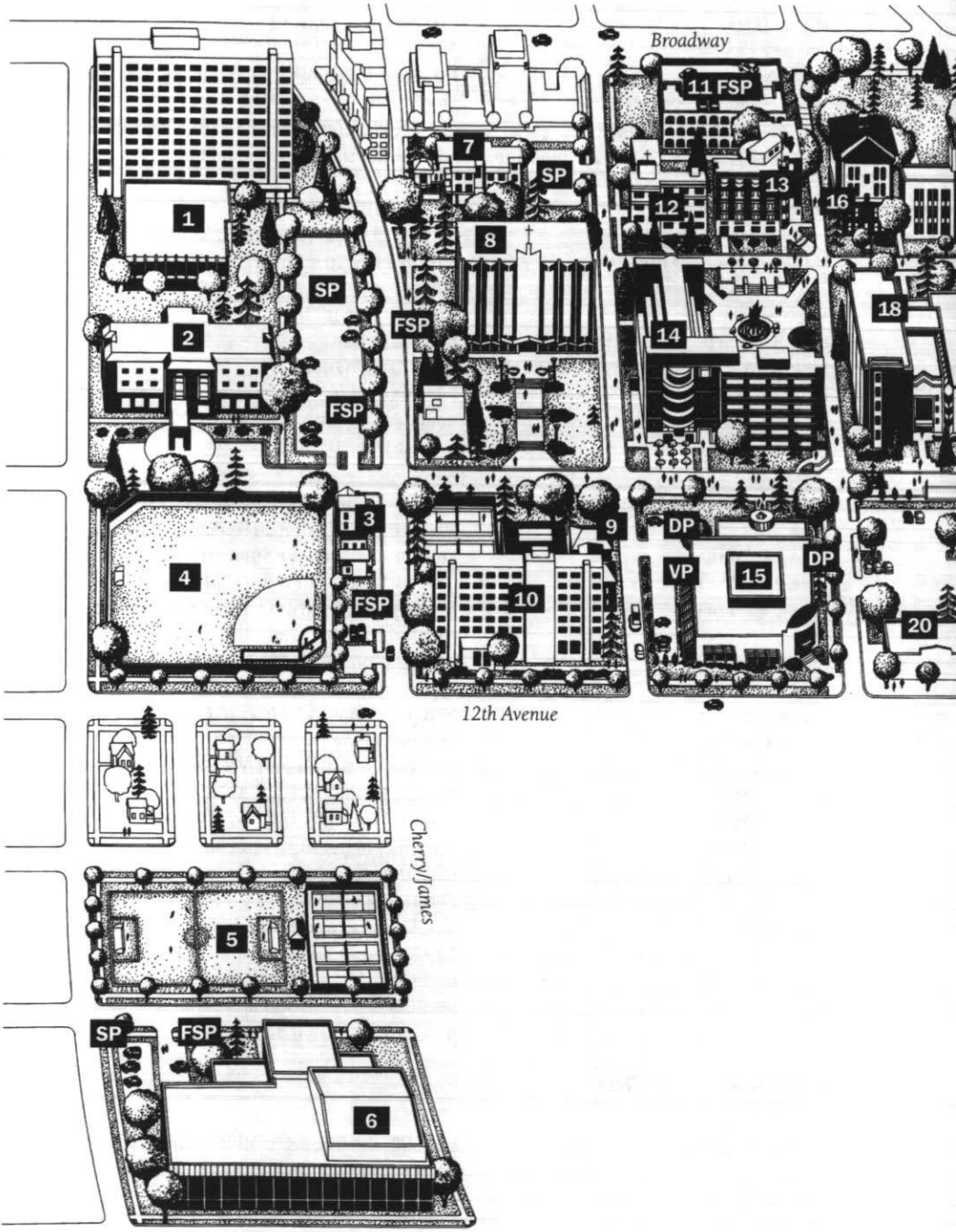
May 1 (Fri)	Last Day to Remove I Grades from Winter, 1998
May 1 (Fri)	Last Day to Remove N Grades from Spring, 1997
May 18-20 (Mon-Wed)	Advising Week for Summer & Fall 98 Registration
May 20-22, 24-25 (Wed-Fri, Sun-Mon)	Advance Registration, by appointment - Summer, 1998
May 25 (Mon)	Memorial Day observed - No Classes (Sat., May 23 classes will meet as scheduled)
May 26-June 5 (Daily, except Sat.)	Advance Registration, by appointment - Fall, 1998
May 28 (Thurs)	Last Day to Withdraw with W Grade
June 8 (Mon)	Last Class Day
June 9-13 (Tues-Sat)	Final Examinations
June 13 (Sat)	Baccalaureate
June 14 (Sun)	Commencement
June 17 (Wed)	Grades Due, 10:00 am

Summer Quarter 1998

June 7-29	Summer 1998 Registration Continues (touchtone)
June 15 (Mon)	Tuition and Fees for Summer Quarter Due
June 22 (Mon)	Classes Begin - First and Full Term
June 29 (Mon)	Last Day, Add/Drop or Change Grading Options - First and Full Term
June 30 (Tues)	Registration Continues (in person) - Second Term and Intersession
July 3 (Fri)	Independence Day observed - No Classes
July 4 (Sat)	Independence Day
July 8 (Wed)	Last Day to Withdraw First Term
July 20 (Mon)	Classes Begin - Second Term
July 27 (Mon)	Last Day to Add/Drop or Change Grading Options (in person) - Second Term
July 31 (Fri)	Last Day to Withdraw - Second and Full Term (in person)
August 3 (Mon)	Last Day to Remove N Grades from Summer, 1997
August 8 (Sat)	Last Class Day - 7 Week Session
August 15 (Sat)	Last Class Day - 8 Week Session
August 19 (Wed)	Grades Due, 10:00 am

Intersession 1998

August 17 (Mon)	Classes Begin
August 24 (Mon)	Last Day to Register, Add/Drop or Change Grading Options (in person)
August 24 (Mon)	Fall, 1998 Registration Continues (touchtone)
August 28 (Fri)	Last Day to Withdraw (in person)
September 7 (Mon)	Labor Day - No Classes
September 14 (Mon)	Last Class Day
September 16 (Wed)	Grades Due, 10:00 am


Broadway
11 FSP
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DP
4
VP
15
DP
FSP
10
20
12th Avenue
Cherry/James
5
SP
FSP
6

Rooms and Auditoriums

Schafer Auditorium	Library (first floor)
Stimson Room	Library (first floor)
Paccar Atrium	Pigott Building
Puget Power Conference Room	Pigott Building
Lynn Collegium	Lynn Building
Chardin Collegium	Xavier Hall
1891 Room	Bellarmine Hall
Campion Ballroom	Campion Hall
Wyckoff Auditorium	Bannan Center for Science and Engineering
Casey Atrium	Casey Building

Eastside Education Center

Bellefield Office Park
Conifer Bldg. #130
1450 114th Ave SE
Bellevue, WA 98004
(206) 451-0200

Campus Buildings

1 ♿ Campion Residence Hall
2 ♿ Bessie Burton Sullivan Skilled Nursing Residence
3 ♿ International Student Center
4 ♿ West Sports Field
5 ♿ East Sports Field
6 ♿ Connolly Center
7 ♿ Arrupe Jesuit Residence
8 ♿ Lemieux Library
9 ♿ McGoldrick Center
10 ♿ Bellarmine Residence Hall
11 ♿ Broadway Garage (FSP)
12 ♿ Loyola Hall
13 ♿ Casey Building
14 ♿ Bannan Center for Science and Engineering
15 ♿ University Services Building
16 ♿ Garrand Building
17 ♿ Administration Building
18 ♿ Pigott Building
19 ♿ Chapel of St. Ignatius
20 ♿ Campus Services Building
21 ♿ Fine Arts Building
22 ♿ Student Union Building
23 ♿ Lynn Building
24 ♿ Xavier Residence Hall

Parking

SP Student Parking
FSP Faculty/Staff Parking
VP Visitor Parking
DP Disabled Parking

Disabled Access Key

♿ Accessible entrance and elevator
♿ 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.

Seattle University

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Admissions Office
900 Broadway
Seattle, Washington 98122-4340