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1995-96 Bulletin of Information - Undergraduate

Seattle University

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SEATTLE UNIVERSITY

1995-1996 Undergraduate
Bulletin of Information

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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.

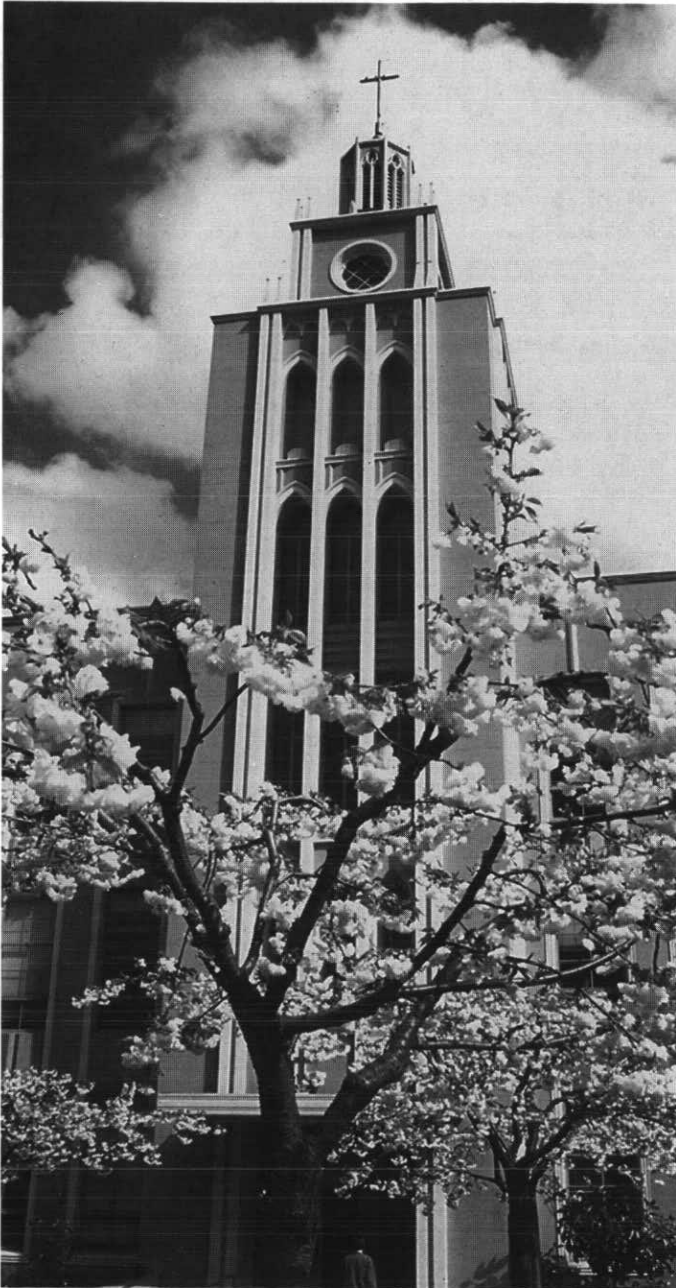
Information concerning continuing studies, graduate and summer school programs may be obtained in supplementary bulletins.

Seattle University
Broadway and Madison
Seattle, WA 98122-4460
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Cover photo by Chris Nordfors



**Seattle
University**
FOUNDED 1891



1995-1996 Undergraduate
Bulletin of Information

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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. Thorough, intelligent training in theory and principles provided by 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 to its students, its own community of educators, and on 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 the development of 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 with the introduction of the first academic or high school-level class in 1898 and the filing of articles of incorporation 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.

Extensive curriculum expansion highlighted the 1970s, with innovative new schools and programs. Chief among these additions were the School of Science and Engineering (1972), and the Matteo Ricci College (1977).

Continually seeking new and better ways to serve, Seattle University introduced the doctorate in educational leadership, the university's first doctoral degree program, in 1976.

Institutional innovations include master-level programs in software engineering and psychology, along with a baccalaureate degree in computer science. The Institute for Theological Studies, initiated in 1985, has more recently added a specialized master's degree in transforming spirituality. Programs in communication studies and international business were implemented in 1988.

The introduction of new academic programs has accelerated since 1990, when the university offered for the first time 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.

Recent years have seen the Albers School of Business and Economics initiate masters programs in finance, applied economics, and international business. Operations management has been added as an undergraduate business option.

The School of Nursing added a master of science in nursing, its first graduate degree, in 1992-93. The School of Law joined the professional schools in fall 1994.

For 1995-96, four new or modified degrees will debut. The English department will be offering an English/Creative Writing major and minor. The Mechanical Engineering Department will introduce a manufacturing engineering major. A new multidisciplinary bachelor of arts degree in ecological studies will begin in fall 1995, as well as an executive master of not-for-profit leadership, the first of its kind in the United States.

The newest and largest addition to the university, the School of Law, joined the professional schools in fall 1994.

Teaching and Service

Teaching is the first priority at Seattle University. Courses are taught by qualified professors, not graduate students. Throughout its history, Seattle University has distinguished itself with an emphasis on teaching excellence. Most of the full-time faculty members have earned doctoral degrees, and are often recognized by academic and scholarly organizations and their professional peers.

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; in Graz, Austria; in Puebla, Mexico; in Tokyo, Japan; and in Taejon, Korea. Voluntary service opportunities are organized in India, in addition to local and regional projects.

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; Criminal Justice; English/Creative Writing; Fine, Applied, and Performing Arts; Foreign Languages; History; Military Science; Philosophy; Political Science/Public Administration; Psychology; Sociology; 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, general business, international business, management, marketing, and operations.

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. There is no undergraduate teacher preparation program at Seattle University. However, the master in teaching program offers teacher preparation in conjunction with a graduate degree. For information about the graduate degrees, consult the *Graduate Bulletin of Information*.

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 and university education 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 departments of biology, chemistry, computer science, diagnostic ultrasound, general science, mathematics, and physics, as well as civil and environmental engineering, electrical engineering, mechanical/manufacturing engineering, and software engineering.

Graduate School

Graduate studies were first offered at Seattle University in 1910 with a master's degree in a division of the College of Arts and Sciences. New graduate degree programs have been added over the years, primarily to meet the needs of working professionals. Today, more than 1,700 students are enrolled in 29 graduate school 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, several programs offer post-master's certificates in the Albers School of Business and Economics and the School of Education, and the Institute for Theological Studies.

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 and Continuing Education

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. Continuing education consists of a variety of not-for-credit workshops, seminars, Elderhostels, and short programs offered by the university. These are open to students, alumni, and the general public.

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
 Commission on Accreditation of Allied Health Education Programs
 (Diagnostic Ultrasound)
 National Council for Accreditation of Teacher Education
 National League for Nursing
 Association of Theological Schools

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
 College Board
 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
 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, one of the nation's most picturesque cities.

The campus is growing to serve the needs of more than 5,500 students and 350 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. It is intended to develop excellence in education and in the care of older persons.

Lemieux Library, constructed in 1966 and named after one of the university's most beloved presidents, Father Albert A. Lemieux, 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 new computer catalog system, students can access information about the collection through public access terminals in the library or through their e-mail accounts.

The offices for enrollment services, enrollment research, Undergraduate Admissions, Graduate Admissions, Financial Aid, the Registrar and Controller, Safety and Security, Summer School and Continuing Education, 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. The Connolly Center is also headquarters for Seattle University's intramural program, which offers a wide variety of activities, including flag football, basketball, co-rec softball, and indoor soccer. Clinics designed to improve skills in volleyball, tennis, golf, and swimming are also offered.

A new addition to the Pigott Building, which houses the Albers School of Business and Economics, opened in fall 1994, and a remodeled main building opens for fall 1995. A newly remodeled Loyola Hall houses the School of Education, and the Garrand Building—the university's historic first building—opened in 1995 as the new home for the School of Nursing.

Beyond textbooks and term papers, students may participate in student government or work on the student newspaper. Seattle University offers 70 campus clubs, honoraries and professional organizations. Honor groups range from Alpha Kappa Psi for business students, to Sigma Theta Tau, the national nursing honorary. The popular Hawaiian Club sponsors an annual luau, and more than 600 people attend an annual dinner with entertainment sponsored by the International Student Center.

Seattle University competes in varsity intercollegiate athletics in the National Association of Intercollegiate Athletics in men's and women's basketball, soccer, tennis and cross country.

Student Development

One of the primary aims of the educational mission at Seattle University is the total development of students. This holistic growth process is enhanced by integrating opportunities for social, emotional, cultural, physical, and spiritual development, in addition to intellectual growth. The Student Development Division is committed to providing programs and services conducive to fostering an educational environment that will assist students in achieving their full potential. The Student Development staff is committed to meeting the developmental needs of Seattle University's diverse student population.

The office of the vice president for Student Development provides the administrative leadership for the Student Development Division, and serves as a source of information and help for many of the students' non-academic needs.

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 and promote social justice, and celebrates God's presence through worship and fellowship. The team fosters opportunities for personal and spiritual growth through educational offerings, international service experiences, and a variety of retreat programs.

The retreat programs are designed to provide progressive opportunities for self-reflection during your college years. ESCAPE is a non-religious overnight experience that 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 on their Seattle University 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.

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 **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 both 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
- job interview preparation

- campus interviews with employers
- full-time job listings
- career resource library

The **Center for Leadership and Activities for Students** includes student activities, clubs and organizations, Student Union programs, Associated Students of Seattle University (ASSU), the Commuter Resource Center, and the Campus Assistance Center. In addition, this office provides leadership development programs for all students.

The **Child Development Center** provides care for children from 2-1/2 to 5 years of age; 70 percent are children of Seattle University's students, faculty, and staff, while 30 percent are children from the surrounding community. The children are divided into three classes depending on age and developmental stage. The center offers an educational curriculum for the children and is nationally accredited by the National Academy of Early Childhood Programs.

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, weight control, 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** aims at creating a comprehensive, quarter-long, 12-credit immersion experience and is offered summer and fall quarters only. 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 overcome culture barriers that prevent them from full participation in the Seattle University experience. (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 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 600 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 skill enhancement to all Seattle University students. Experienced learning specialists and graduate interns take time to explore specific academic needs and assist in

designing an individual educational plan. The Learning Center can provide tutors, assessments of learning styles and 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** works toward the understanding, respect and appreciation of the cultural diversity within our campus community. Ongoing programs emphasize the academic, social and personal success of the ethnic American students through supportive counseling and advising. 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 and Lunch.

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 and Wellness and Prevention Programs work together to bring the concept of "growth of persons" to life through out-of-class learning experiences. Services, activities, and resources emphasize living and relating in a healthy community. Students may pursue a variety of interests by initiating and participating in group activities. Mentoring relationships, student-led discussions, interactive presentations, and prevention programs promote wellness, integrate learning, and support the formation of lasting friendships. A student assistance program addresses individual and campus substance abuse concerns with information, screening, classes and referrals. Pathways and Wellness and Prevention sponsors ongoing Discovery Group, Peer Mentor, and Peer Educator student programs. It also sponsors campus-wide activities such as Art Fest, New and Graduating Student Speak Outs, and quarterly kick-off celebrations.

Student clubs and organizations at Seattle University offer students many opportunities to develop leadership skills, broaden their social and professional backgrounds and make a significant contribution to both the university and the community. A list of clubs and organizations is available at the Center for Leadership and Activities for Students (CLAS). 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** is the hub of campus activities. It offers a games room, the Chieftain dining area and student lounges. Student Development administrative offices, the Associated Students of Seattle University (student government), and the *Spectator* (student newspaper),

are located there. The Campus Assistance Center, Center for Leadership and Activities for Students, Commuter Resource Center, New Student Programs/Orientation, Pathways and Wellness and Prevention Office, and Volunteer Center are also located in the Student Union Building.

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 Pigott 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 National Association of Intercollegiate Athletics. The university competes in soccer, basketball, tennis, cross country, and skiing for men and women. The university places a high priority on its intramural and recreation 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. Outdoor facilities include six tennis courts and a two-field complex for soccer, flag football, volleyball, softball, and jogging.

The **Volunteer Center** helps students to serve 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, room 207.

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.

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 400 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 suffer a financial loss.

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 on page 34x.

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).

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 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. In addition to the requirements for admission set forth in this section, reference must be made to the additional or distinctive requirements within the individual colleges or schools of the university. This information can be found in subsequent sections of the bulletin.

Seattle University selects for undergraduate admission those students who have demonstrated moral character and the scholastic ability to achieve a level of academic performance necessary to earn a degree.

The dean of admission reserves the right to withdraw an offer of 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 the right of continued enrollment to any individual who has engaged in unlawful or criminal behavior. It is the responsibility of all applicants and, as appropriate, admitted students, to disclose in writing to the dean of admission all criminal convictions classified either as a felony or gross misdemeanor.

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

Special Consideration

Students who show exceptional promise may be admitted without rigid adherence to minimum unit requirements, even if they have not graduated from high school, have graduated from a non-accredited high school or have satisfactorily completed the General Equivalent Diploma (GED). All admissions decisions in these cases are made by the provost and the university's review board for undergraduate admissions.

Seattle University offers the opportunities and experiences of higher education to all students without regard to race, religion, age, gender, handicap, or national origin. It does so in keeping with the guidelines and requirements of laws and regulations as promulgated by 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. Denis Ransmeier, vice president for Finance and Administration, is the responsible 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.

Admission from Secondary Schools

To be considered for admission to the university as an undergraduate student, you must meet the following entrance requirements:

- Have graduated or will graduate from an accredited high school;
- Have completed 16 units of college preparatory courses as noted below;
- Have a minimum 2.50 high school grade point average, or the minimum required by a school or department. A 2.50 grade point average is measured on a 4.0 scale, using only college preparatory courses;
- Have a rank in the upper 50 percent of the high school senior class;
- Have submitted scores from either the Scholastic Assessment Test (SAT I) or the American College Test (ACT).

Applicants with a grade point average below 2.50 as computed by the Undergraduate Admissions Office will be reviewed by the university's review board for undergraduate admissions. Applicants with a grade point average below 2.25 will not be admitted to the university on either a regular or probationary status.

Course Recommendations

Admission is granted subject to graduation from an accredited high school, with the recommended 16 academic units, distributed as follows (one unit equals one year of study):

English	4
Mathematics (algebra, geometry)*	2
Social Studies	2
Laboratory Science*	1
Foreign Language+	2
Academic Electives (approved)**	5

* Applicants for most science, engineering and nursing degrees must have completed three units of mathematics and two units of laboratory science.

+ Foreign language study is strongly recommended, since students in the College of Arts and Sciences must complete a foreign language III course or demonstrate competence at this level to meet their degree requirements. Transfer students are also strongly advised to include foreign language study as part of their associate of arts program.

** Electives may be reduced by requirements in other categories.

Application

In the state of Washington, application forms for those wishing to enter as freshmen may be obtained by writing the Undergraduate Admissions Office, Seattle University, Seattle, WA 98122-4460, or from any high school counseling office in the state. Out-of-state applicants may obtain forms by writing to the Undergraduate Admissions Office.

To apply for admission, follow these procedures after completion of at least the sixth semester of high school.

1. Complete section I and II of the application for undergraduate admission and leave the entire form with your counselor to have section III completed and forwarded directly to the Undergraduate Admissions Office.
2. Have the teacher recommendation form completed and forwarded directly to the Undergraduate Admissions Office.

3. Submit a non-refundable application fee of \$40 to the Undergraduate Admissions Office, payable to Seattle University.
4. Have your high school transcript and transcripts of any post-secondary course work you have completed sent to the Undergraduate Admissions Office. Only official transcripts are acceptable. Official transcripts must arrive in the Undergraduate Admissions Office in a sealed envelope from the issuing institution.
5. Have your scores from either the Scholastic Assessment Test (SAT I), or the American College Testing Program (ACT) sent to the Undergraduate Admissions Office.

Notification of acceptance or denial for fall quarter begins December 1 of the preceding year and continues as space is available. However, students whose records do not give sufficient evidence of the ability to pursue college-level work will be notified that a final decision will not be made until the specified information is received.

Fall quarter high school students should apply for admission by March 1. Applications submitted after March 1 are considered on a space-available basis only. All admission credentials should be postmarked by March 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. You can find out more about these tests from your high school counselor or by writing to the Educational Testing Service. At your request the Educational Testing Service will forward test results directly to Seattle University. A score of three or better on an AP examination may earn 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, you must submit your official test results to the Registrar's Office one month before the quarter you plan to enroll.

Early Admission

High school students with a grade point average of 3.3 or above on the 4.0 scale who are recommended by their high school principal and their high school counselor may be considered for enrollment after completing their junior year in high school.

Early Decision Plan

Students who select Seattle University as their first-choice college and who have clearly demonstrated a high level of scholastic ability are eligible to apply for admission under the Early Decision Plan. Complete admission credentials should be submitted as soon as possible after the close of the sixth semester, but no later than November 1 of the senior year. Notification will be sent as soon as all credentials are received.

International Baccalaureate

The university grants course credit and advanced placement for any upper-level subject in the International Baccalaureate program passed with a grade of 5 or higher. Subsidiary level courses will be 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.

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 subject to dismissal 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 high school records. Transfer credits will be considered 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 44 credits or fewer; and, b) students attending college for the first time or who have 20 or fewer credits, no matter when they graduated from high school.

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

Admission from Other Post-Secondary Institutions

A student who has established a satisfactory record in another accredited college or university may apply for admission with advanced standing at Seattle University. An applicant for transfer admission must:

1. Submit to the Admissions Office an application for admission, and application fee of \$40 payable to Seattle University. Submit one official copy of a transcript from each postsecondary institution previously attended. Failure to furnish complete previous post-secondary records when applying for admission or readmission places students under penalty of withdrawal of an offer of admission or immediate dismissal. The university has the option to declare all 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; see 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 acceptable for transfer, to fill core or electives, but cannot fill major requirements in many departments if graded less than 2.0.

3. Transfer applicants who have completed less than one full year (45 quarter or 30 semester hours of transferable credit) at another postsecondary institution must fulfill secondary school unit requirements for admission to the freshman class. In such cases, an official copy of the high school transcript must also be submitted.

Transfer students who have been suspended or dismissed will not be eligible for admission unless one calendar year has elapsed since the dismissal or suspension. At the end of this period, admission may be granted only by the undergraduate board of admissions. In such cases, two letters of recommendation are required.

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

(Policies 77-1 and 79-1)

For the purpose of guidance and registration, the academic evaluation unit in the Registrar's Office will make a tentative evaluation of transfer credits at the time of admission to Seattle University. All evaluations are subject to the approval of the provost and the dean of the appropriate school. (See Transfer of Credit from Other Institutions in this bulletin for additional information.)

Audit Students

Admission as an auditor must be approved by the course instructor. An auditor will not be required to participate in class discussion or laboratory work. Assignments may be made at the discretion of the instructor.

Elder Audit

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.

Fifth-Year Students

(Policy 94-2)

Post-baccalaureate students seeking a certificate 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.

International Students

(Policy 76-6)

Specific admission requirements and procedures for all international students are listed on the university's undergraduate international student application form. These criteria differ from those applied to United States citizens. International applicants should read carefully the International Student Application.

Permanent Resident Students

Students whose official immigration status is that of permanent resident must submit Test of English as a Foreign Language (TOEFL) results if English is their second language.

Special Students

(Policy 75-25)

The special student designation may be granted to students who do not meet the standard admission requirements. This is a temporary, but matriculated, status and is available for undergraduate courses only with the approval of the dean of admission or the dean of the school or college. Special students must complete 30 Seattle University credits and an acceptable grade point average before they can declare a major and have transfer credit accepted.

Transitional Students

Admission as a transitional student is granted with non-matriculated status for a maximum of two quarters. A student must be in good standing at a recognized college or university and meet Seattle University's admission standards. Transitional students do not qualify for financial aid or academic counseling. Students must be matriculated in a degree program to receive financial aid.

By special arrangement, superior high school students may be admitted to specific courses with transitional student status.

University credit will be awarded for successful completion of courses taken as a transitional student. Such credit may be applied toward a degree from Seattle University only after admission to a degree program.

Financial Aid

Seattle University offers a variety of strategies and resources to lower the cost of a university education. All families are urged to complete a financial aid application regardless of their income level. Financial aid professionals will then have the information necessary to discuss all options available for parents and students. The financial aid application is the common form with which students may apply for all campus-based programs (Federal Perkins Loan, Nursing Student Loan Program, Federal Supplemental Educational Opportunity Grants, Federal Work Study) and at the same time apply for the Federal Pell Grant, the Washington State Need Grant, the Educational Opportunity Grant, State Work Study and the Federal Stafford Loan. The Financial Aid Office will help students identify sources for

financing a higher education. These sources include, but are not limited to, family, student, state government, federal government, and private sources.

Although students must be admitted as regular degree-seeking students to receive an award, they should apply for financial aid as soon after January 1 as possible.

Students are expected to arrive on registration day with sufficient funds to cover any portion of tuition, books, room, board, and other fees not covered by financial aid. If a student is late in applying for a Federal Stafford Loan, or if for some other reason a shortage of funds occurs at the time of registration, students should make arrangements to secure short-term loans from relatives, employers, or other funding sources. All students should bring sufficient funds to allow them to eat and purchase classroom materials for the first week of school.

Payment of Awards

All awards, except work study earnings, some Federal Stafford Loans, Washington State Need Grants, Educational Opportunity Grants and funds from outside agencies, are disbursed to students by means of a direct credit to their account. Each quarter, transfer is dependent upon the final approval of the director of Financial Aid. Each student must acknowledge receipt of the awards before they are credited to a student's account. Only when a student's file is complete can aid be transferred to the account.

Types of Financial Aid

1. Grant or Scholarship—An award that does not require repayment.
2. Loan—Low interest loans with flexible, liberal repayment periods.
3. Work Study—An opportunity to work on or off campus while attending school.

Application Procedure

1. Apply for admission to Seattle University as a degree-seeking student as early as possible. Financial aid will not be awarded until students are formally admitted. Students who have applied for admission by February 1 will receive maximum consideration for financial aid.
2. File the Free Application for Federal Student Aid (FAFSA) as soon as possible in January 1995, indicating Seattle University in the college release section. Students do not need to be formally admitted to submit this application.
3. All students must submit copies of their 1994 federal tax returns. Parent tax returns are also required for dependent students. All transfer students must request financial aid transcripts from any schools previously attended, whether or not they received financial aid from that school. Based on their application, some students will also need to complete additional documents.
4. Upon receipt of an official award letter, students must notify the Financial Aid Office of their plans by the date indicated by accepting or rejecting the funds offered. Students neglecting to return their award letters by the date specified will have their financial aid cancelled. They must also reserve their space in the class by submitting their advance deposit.

5. Students must reapply for financial aid each year. Tax returns for the previous calendar year are also required each year.
6. Students and parents are advised to make a file for each application year and to retain copies of all materials submitted.

The preferred date for receipt of all materials to the Financial Aid Office is February 1 for the following academic year. Aid application processing is on a rolling basis. The earlier Seattle University receives the financial aid application, and the earlier the student submits all documents, the greater the opportunity to obtain the best possible financial aid package.

Eligibility for Federal Student Aid

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

1. Be a U.S. citizen, national, or permanent resident.
2. Be attending at least half-time and enrolled in a regular degree-seeking program. Students enrolled less than half time may be considered for the Federal Pell Grant only.
3. Must maintain satisfactory progress in the course of study. Satisfactory progress for full-time undergraduates means that a student must earn 36 credit hours each academic year in order to continue to receive need-based financial aid in the future. (This requirement should not be confused with minimum hours required each quarter to receive aid for that particular quarter.)

Satisfactory progress is explained in more detail on a form titled Conditions of Award and Student Responsibilities, which is mailed to students along with their award letters. In addition, students must have a minimum cumulative grade point average of 2.0 after their second year of postsecondary attendance. The following standards are applied to all undergraduate, full-time federal aid recipients:

Number of Hours Completed	Grade Point Average	Years to Complete
0 to 36	N/A	1
37 to 72	2.0	2
73 to 108	2.0	3
109 to 144	2.0	4
145 to 180	2.0	5
181 to 225	2.0	6

If, at the end of the spring quarter, the Financial Aid Office determines that a student has not met the standards, the student will be required to attend summer session. The student will remain ineligible for assistance until the standard has been met. The grade point average standard must be met at Seattle University, since credits at other colleges and universities do not alter the Seattle University grade point average. Students who do not meet the credit hour standard may make up the credits elsewhere with permission from the Financial Aid Office. The requirement to attend summer session may be waived or

financial aid continued in spite of non-compliance with eligibility standards, if a student's written appeal to the financial aid committee is granted.

4. Must not be in default on a student loan or obligated to pay a refund on a previous federal aid program.
5. Must establish need by filing a financial aid application.
6. Must be an undergraduate student who has not previously received a bachelor's degree. Graduate students and students obtaining a second bachelor's degree may receive aid from the loan programs and work programs only.
7. With the exception of the Federal Stafford Loan, must not be a member of a religious community, society, or order who by direction or with permission of the community, society, or order is pursuing a course of study at Seattle University and who receives support and maintenance from the community, society, or order in an allowance or in kind.

Financial Aid Programs

A financial aid package may include assistance from any one or more of the following sources. The Financial Aid Office is required to coordinate funding from all sources. The student's total resources cannot exceed the cost of education as set by Seattle University, whether or not the funds are considered need based.

Sullivan Leadership Awards, Presidential Leadership Awards, and Seattle University Leadership Awards are awarded by the Sullivan Leadership Award Committee through an in-person competition. The scholarship competition is named for William J. Sullivan, SJ, president of Seattle University, who has established as a primary goal the preparation of students for leadership roles in society. Students are required to submit separate application materials. There are various tiers of competition culminating with an interview and speech. Awards are renewable for four years with appropriate leadership activities, 45 credit hours, and a 3.0 cumulative grade point average. Students must also attend full time for each quarter the award is received.

Presidential and Trustee Scholarships based on achievement are available to students with superior academic ability. The Admissions Office will nominate students at the time the admission decision is made. Scholarships range from \$1,000 to \$7,500 for 1995-96. Students must attend full time to receive the award for any quarter. Each award is for four years with the completion of 45 credit hours per academic year and a 3.0 cumulative grade point average.

Matteo Ricci Grants are awarded to full-time students participating in the Matteo Ricci College who have demonstrated above-average academic ability. These awards are automatically renewed for the second year. Renewal for the third year requires the completion of 90 credit hours and a 3.0 cumulative grade point average. Renewal for the fourth year requires completion of 45 credits for the previous year and a 3.0 cumulative grade point average.

Regents' Awards are \$4,500 for 1995-96 to qualified African-American, Hispanic, or Native American students attending full time. A special application is required and is available from the Undergraduate Admissions Office.

Renewal requirements include the completion of 36 credit hours per academic year and a 2.0 cumulative grade point average.

Seattle University scholarships and awards may also be awarded in various forms through the Honors Program, University Sports, Residential Life, ROTC, the Associated Students of Seattle University (student government), the Institute for Theological Studies, and the *Spectator* (student newspaper). University Sports may offer talent awards, athletic grants, and room grants. Residential Life provides awards for work as resident assistants. The ROTC program offers incentive awards and room grants to some of the exemplary students who are also receiving a federal ROTC scholarship. Students who are elected to certain positions in the Associated Students of Seattle University receive compensation for services in the form of a direct credit to their account. The Institute for Theological Studies makes awards to students with exceptional circumstances. The editor of the *Spectator* and some of the staff receive direct credits to their accounts for service.

Scholarships and Grants

Seattle University offers special awards in recognition of outstanding achievement. Students apply for these scholarships by submitting a financial aid application. All applicants for financial aid who have a minimum 3.0 grade point average are considered for these awards.

Most of the following scholarships are awarded to continuing students only, based on their financial aid application. Scholarships requiring an additional application are indicated after the scholarship name. New freshmen may apply for those restricted scholarships with an * in front of the name.

Restricted Scholarships

- Alliant Tech Systems
- * Alpac Corporation Scholarship Program—application available from Admissions Office (freshmen only)
- Alpha Sigma Nu Scholarship
- Arthur Andersen Scholarship Fund for Asian-Americans
- Boeing Company Corporate Scholarship
- Ben B. Cheney Scholarship
- * Chevron Awards—application available from Admissions Office (freshmen only)
- Continental Mills
- Continental Mills, Inc. Dean's Fund-Business
- Louella Cook Scholarship
- Esco Engineering Scholarship
- Farmers Insurance Group Scholarships
- First Interstate Bank of Washington Scholarship
- * Future Teacher Scholarship—application available from Financial Aid in February
- Geneva Foundation Drama Scholarship
- Justice Charles Horowitz Award
- Archbishop Hunthausen Scholarship
- Investors Guaranty Life Insurance Aid-To-Education
- ITS Scholarship
- King 5 Television Scholarship

- Harold A. Lemon Memorial Fund
 Palmer G. Lewis Co. Crane Fund
 Lockwood Foundation Scholarships
 MBA Scholarship
 Theiline Pigott McCone Memorial Scholarship
 * Nursing Conditional Scholarship—application available from Financial Aid in February
 Ohio State Life Insurance Company Scholarship
 * Pacific Coca-Cola/Thriftway Stores Awards of Excellence—application available from Thriftway (freshmen only)
 * Paul Douglas Teacher Scholarship—application available from Financial Aid in February
 ROTC Scholarships
 Jimmy Santoro Athletic Scholarship
 Science Scholarship
 Seafirst Bank
 Tillie and Alfred Shemanski Scholarships
 Sirach Capital Management Business Scholarship
 Barbara A. Trachte Honors Scholarship
 United Parcel Service
 Washington State Automobile Association Achievement Award
 Westinghouse Hanford Scholarship

Endowed Scholarships

The Jack and Patricia Baird Endowed Scholarship Fund was established in 1990 through a generous donation from the Bairds. It supports talented students with financial need who are physically challenged or differently abled.

The Father Gerald Beezer Scholarship Fund was established in 1978 in memory of Edward P. Beezer. It is a renewable award for science, chemistry, or pre-med majors.

The Blume Family ITS Scholarship Fund was established in 1961 and has had additional family member donations. Students with financial need in the Institute for Theological Studies program are selected by the ITS director.

The Tim Brandt-Guy Marsh Honors Scholarship was established in 1988 for an outstanding student in honors with an interest in theology and a minimum grade point average of 3.5. Selection is made by the director of the Honors Program.

The Alphonse and Mary Brenner and John Brenner Scholarship was established in 1973 as a one-year non-renewable scholarship for a Catholic freshman with financial need from the Yakima Diocese.

The Alma and Gill Centioli Scholarship was established in 1984 to provide annual scholarships to students preparing for spiritual service to others. Selection is made by the director of the Institute for Theological Studies.

The Sigmond and Theresa Chapin Memorial Scholarship was established in 1981 as a renewable fund for deserving students with financial need as selected by the faculty.

The Woodrow R. Clevinger Scholarship was established in 1976 to memorialize Professor Clevinger, who taught marketing in the School

of Business, by recognizing an outstanding junior business student. The recipient is chosen annually in April by committee.

The Hulda Cocanower Scholarship was established in 1993 to help financially needy students attend Seattle University.

The William J. Codd, SJ, Memorial Scholarship was established in 1980 for an education student in the final year of studies. Selected by the dean of the School of Education and committee.

The Jeannette Standaert Conlon Memorial Scholarship was established in 1991 from the bequest of Annette Garrett for needy and deserving psychology students interested in counseling.

The Les and Dan Corrette Endowed Scholarship was established in 1993 to help financially needy students.

The Diane Cothrin Fund was established as a renewable scholarship, based on need, to help juniors and seniors of any major as selected by the Financial Aid Office.

The John R. Dijulio Scholarship Fund was established in 1982 for meritorious undergraduate students with financial need.

The John C. Erickson Memorial Scholarship Fund was established to honor outstanding junior civil engineering students with financial need.

The Blanche Ernst Memorial Scholarship was established in 1986 through a gift from the Blanche Ernst Trust for students with financial need.

The Alice Fisher Scholarship Fund was established in 1971 to honor Alice Fisher, on her retirement, by the faculty of the School of Nursing. Junior or senior nursing students with financial need are eligible.

The C. Pearl Fleenor Scholarship was established in 1981 as a renewable award to support an outstanding undergraduate business student with financial need.

The Edward and Benneth Franett Scholarship was established in 1993 to fund financially needy nursing students.

The Wendelin Gruber, SJ, Scholarship was established to provide partial scholarships for participants in the overseas study program. Recipients are selected from applications by the Foreign Language Department.

The Della Caldirola Guilfoil Scholarship was established in 1991 by Mrs. Guilfoil for psychology students with financial need.

The Agnes Handley Memorial Scholarship is awarded to students based on need, academic performance, leadership, and school and community involvement.

The Hearst Foundation Scholarship was established in 1982 by the William Randolph Hearst Fund for meritorious journalism students with financial need.

The Igoe Scholarship was established as a renewable fund for students of any major with financial need.

The Henry T. Ivers Memorial Scholarship was established in 1979 as a memorial to the former regent and 1925 graduate. Recipients are selected based on merit and financial need from any undergraduate major.

The Richard and Kathie Ann Jones Charitable Trust Scholarship was established in 1983 as a non-renewable fund for deserving juniors with financial need. Recipients must not be affiliated with the Bank of California.

The Hildred Linder Scholarship was established in 1993 to help financially needy students attend Seattle University.

The Dr. Harry Kinerk Memorial Scholarship was established through the estate of this former math faculty member and his brother Louis. Recipients are selected from the fields of science and engineering based on financial need.

The Jeremiah F. Lavell Journalism Scholarship was established in 1990 through a bequest. A committee will select junior journalism majors to receive the award in their senior year.

The William F. LeRoux, SJ, ITS Scholarship is awarded by the director of the Institute for Theological Studies to a master of divinity student maintaining a 3.25 grade point average.

The Joseph A. Maguire, SJ, Scholarship was established by Jack and Edna Maguire of Wenatchee in honor of Father Maguire. Recipients are selected from the Albers School of Business and Economics based on financial need.

The McCleary Scholarship in Education was established in 1985 by Martha McLellan in memory of her father, William McCleary, for students with financial need in the School of Education.

The McGoldrick Alumni Scholarship was established to encourage allegiance to Seattle University for generations. Eligible students must be admitted, have a 3.0 grade point average, be involved in extra curricular activities, and have at least one parent who attended Seattle University for at least one year. Applications are secured through the Alumni Relations Office. Students must reapply each year.

The McLellan Scholarship in Nursing was established by Martha McLellan in memory of her husband, Lawrence McLellan, for meritorious students in the School of Nursing with financial need.

The Reverend Edmund B. McNulty, SJ, Scholarship Fund was established in 1983 for needy and meritorious engineering students. The first scholar was named in 1991.

The Medak/Bishop Endowment Scholarship was established to help fund meritorious students of any major with financial need.

The George R. Murphy Engineering Scholarship was established to honor the memory of George R. Murphy by assisting meritorious students with financial need in the School of Engineering.

The Naef Scholars program was established through a gift from the Sue M. Naef estate. Recipients are selected by committee from juniors and seniors with a grade point average of 3.4 or greater. Juniors are eligible to be funded in their senior year.

The Nelson Scholarship was established through the John J. and Margaret E. Nelson Memorial Fund for worthy students with financial need studying engineering, nursing, or pre-medicine.

The Margaret Nichols Scholarship was established in 1993 through her estate for financially needy students.

The Mildred O'Neal Scholarship was established to provide funding for financially needy fine arts students.

The Paul Pigott Memorial Scholarship was established through the estate of Paul Pigott for a freshman with financial need.

The Mary C. Pirrung Fund for Master's Candidates in Reading was established in 1985 to provide funding to a master's candidate in reading. Applications are secured through the School of Education.

The Stuart Stephen Reed Scholarship was established in 1990 through the Anita M. Reed estate to provide funding for a worthy engineering or pre-medical student with financial need.

The Father James B. Reichmann Scholarship was established by the Philosophy Department to honor a junior or senior philosophy student with outstanding scholastic ability.

The Royce Endowment Scholarship Fund was established in 1993 to assist needy students pursuing basic certification in addiction studies. Selection is determined by department committee.

The Sauvage Scholarship was established to recognize nursing students entering the third year of their program who have been actively involved in Seattle University campus activities.

The Albert A. Schafer Memorial Scholarship was established in 1961 through the estate of Albert A. Schafer. Recipients are selected based on financial need and academic achievement.

The Mary G. Searles Scholarship was established in 1993 to assist needy female students who intend to make the study of music their primary focus.

The Seattle University Guild Endowment Scholarship was established through fundraising activities by the Seattle University Guild. The guild is currently inactive, but six past members serve on a selection committee to review and select recipients based on academic achievement, community involvement, and financial need. Applications for this non-renewable scholarship are available at the Financial Aid Office after January 1.

The Paul B. Shorett Memorial Scholarship was established from the Paul B. Shorett Trust through Metropolitan Savings for students with financial need majoring in science and engineering.

The Friendly Sons of St. Patrick Scholarship Fund was established in 1981 to recognize students of Irish-American heritage. Selection is made by the officers of Friendly Sons of St. Patrick based on financial need, grade point average, and an essay on heritage.

The William J. Sullivan, SJ, Leadership Awards were established to support full-tuition scholarships and room grants to entering freshmen who demonstrate effective leadership through a competition. Funding is provided through gifts from Mary Alice Romano and Mrs. John A. McCone. Selection is made through committee from worthy Washington applicants and is renewable yearly for four years, as long as the student maintains leadership potential, involvement, and academic excellence, and continues to reside in the residence halls.

The G. Robert Truex Scholarship was established as a memorial by the family of G. Robert Truex, who worked for Security Pacific Bank. The recipient is selected by the Financial Aid Office and the Minority Student Affairs Office from minority students majoring in business.

The US Bank Scholarship was established in 1992 through a pledge

from US Bank to fund disadvantaged students with financial need. Preference given to students in the Albers School of Business and Economics.

The Frank A. Valente Scholarship was established to honor the memory of Dr. Valente for students with financial need majoring in physics.

The Bert Vigfusson Scholarship was established in 1990 through the will of this resident of Iceland for all students at Seattle University with financial need.

The Jerry J. Ward Memorial Scholarship Fund was established originally from a gift of the Jerry J. Ward estate and has had regular contributions from his son, Richard Ward, MD, '72. Recipients are selected from any major, based on merit and financial need.

The Frank and Anne West Science Scholarship was established in 1987 as a renewable fund for science majors based on financial need and merit.

The Ronald Wilby Endowed Scholarship For International Business was established in 1989 to honor Professor Wilby, formerly an international business faculty member of the Albers School of Business and Economics. The international business faculty select from worthy junior and senior applicants.

Loans

Loans are an integral part of the financial aid award package offered to students. Some loans do not require payment of principal or interest until the student graduates or leaves school. At that time, low-interest payments begin and may extend over a long period. Loans are an excellent means for the student and family to assume part of the cost of education. The student must be a U.S. citizen, a resident of a trust territory, or have permanent resident status, approved by the Immigration Department, to be eligible for loans that involve federal funds.

Federal Perkins Loan

The Federal Perkins Loan is a long-term loan based on financial need. Eligible students may borrow a total of \$15,000 for undergraduate education or \$30,000 for combined undergraduate and graduate education. Repayment begins nine months after the student graduates, drops to less than half-time, or leaves school. The annual interest rate is 5 percent and repayment may extend 10 years, but payments may not be less than \$40 per month. The Federal Perkins Loan repayment program also includes limited deferment provisions and cancellation features.

Federal Stafford Loan

A Federal Stafford Loan is a long-term, need-based loan arranged with a lender selected by the student. Commercial banks, credit unions, and savings and loan associations are possible lenders. Federal Stafford Loans are guaranteed by the Northwest Education Loan Association or equivalent agency.

Students applying for Federal Stafford Loans must qualify on the basis of financial need and must be enrolled at least half-time. The student's financial need for the loan will be determined through the use of the financial aid application. The determination of financial need for the loan

will be calculated by Seattle University and reported on the student's Federal Stafford Loan application form. All first-time recipients at Seattle University are required to have an entrance interview before receiving their first check. All checks, when signed, must first be applied to the student's account.

Annual loan limits are \$2,625 to \$5,500 for undergraduate students and \$8,500 for graduate students. Students may borrow up to \$23,000 during their undergraduate years. Graduate students may borrow \$65,500 for their undergraduate and graduate career.

Per federal regulation, first-time freshman borrowers will have their first loan check held for 30 days after the start of the quarter.

All Federal Stafford Loans will be charged a 4 percent fee by the lender. It is used by the federal government to offset the interest charged on the student's loan while the student is enrolled. With the exception of this fee, the student does not have to pay any other interest charges while enrolled as at least a half-time student.

Repayment of the loan begins six months after the student ceases to be at least a half-time student. Repayment is usually monthly, with variable interest. The current interest rate is capped at 8.25 percent.

Students are required to make payments of at least \$50 per month. Early application for the Federal Stafford Loan is advised, since processing of the loan paperwork may take from six to eight weeks.

Payment deferrals and cancellations are available in some limited circumstances. See the Financial Aid Office or talk to your lender for more information. The Financial Aid Office will discuss this information during loan entrance interviews for first-time borrowers.

Nursing Student Loan

Nursing Student Loan (NSL) is a long-term loan based on financial need. Eligible students may borrow up to \$2,500 for each of their first two academic years and \$4,000 per year for junior and senior years. However, the maximum that may be borrowed under this program is \$10,000. Repayment begins nine months after the student drops to less than half time, leaves school, or changes to a non-nursing major. The annual interest is 5 percent and repayment may extend 10 years. Payments may not be less than \$15 per month and will usually be \$30. The NSL also has limited deferment provisions.

Gene E. Lynn Rural Nursing Endowment Fund

The Federal Nursing Student Loan Program is available for Seattle University students through the generosity of Gene E. Lynn, who, in conjunction with the university, provides matching funds to participate in the program.

Grants

Federal, state, and institutional grants do not require repayment. Students who have received a baccalaureate degree are not eligible for grants. Need, rather than grade point average, is the primary consideration for eligibility.

The Federal Supplemental Educational Opportunity Grant (SEOG) is awarded to needy students who are also eligible for the Federal Pell Grant.

The Federal Pell Grant is awarded to the neediest of students, based on the financial aid application.

Washington State Need Grants (WSNG) and Educational Opportunity Grants (EOG) are designed to assist needy and/or disadvantaged Washington state residents in obtaining postsecondary education. EOGs are available to transfer students who have an associate degree or achieve junior standing. Religion and theology majors are not eligible.

ROTC Grants Army/Air Force/Navy-Marines

U.S. Army awards are made to selected high school seniors and college freshmen, sophomores, and juniors who enroll in the Army Reserve Officer Training Corps. These are two-, three- and four-year merit scholarships covering 80 percent of tuition and fees, textbook allowance, and a \$100 per month tax-free subsistence allowance. Room and board grants are also available to scholarship students. An annual subsistence stipend of \$100 per month is paid to all advanced course students. Write to: Professor of Military Science, Seattle University, Broadway and Madison, Seattle, WA 98122-4460 for information on application procedures.

The United States Air Force awards scholarships to selected students enrolled in the Air Force ROTC programs. Write to: Professor of Aerospace Studies, DU-30 University of Washington, Seattle, WA 98195. See the Military Science section under College of Arts and Sciences in this bulletin for additional information.

The United States Navy awards scholarships to selected students enrolled in the Navy ROTC programs. Write to: Professor of Naval Science, DU-40 University of Washington, Seattle, WA 98195. Navy scholarships are similar to Army/Air Force scholarships offered above, however, 100 percent of tuition, books, and academic fees are covered.

Veterans, Widows, and War Orphans Education Assistance

Veterans (or spouses of deceased veterans) may receive up to 45 months of educational assistance under terms of the GI Bill. War orphans and dependents of disabled veterans may also receive up to 45 months of educational assistance. Contact the Seattle University 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

A financial aid award frequently includes work study eligibility, along with a loan and/or a grant. Work-study-eligible students earn wages by being employed under the work study program. This earned income is used to pay either tuition or living costs. It is important to note that wages earned during the academic year under the work study program are not yet available at the time of fall quarter registration. Therefore, bills due at that time must be paid with other money.

Work-study-eligible students are not required to work, nor is employ-

ment guaranteed. The Financial Aid Office assists students in obtaining employment on or off campus.

Federal Work Study provides part-time employment in on-campus positions for students with established financial need. Students may work up to 20 hours per week.

Washington Work Study provides part-time employment to upper classmen in positions with employers off campus for students who qualify under the financial need formula and who are Washington state residents. Students may work 19 hours per week.

The Financial Aid Office maintains a listing of employment available on campus and with Seattle area employers.

Tuition and Fees

Tuition Rates 1995-96

Regular Courses (fall, winter, spring)	\$303 per credit hour
Full-Time Student Annual Tuition	\$13,635
45 credit hours per year (15 credit hours per quarter)	
Addiction/Drug Studies Certificate	\$264 per credit hour
Culture and Language Bridge (CLB)	\$269 per credit hour
Military Science 311, 312, 313, 412, 413, 419 ...	\$303 per credit hour
Auditors Tuition	\$96 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 1995-96 (usually per course)

Education 460	\$49
Nursing 200	\$49
Nursing 302, 303, 319, 329, 339, 349, 411, 413, 423 (per credit hour)	\$29
Nursing 385	\$128
Psychology 304, 306	\$65
Private Music Lessons	\$71
Science and Engineering Laboratory Courses	\$65

Other Fees (non-refundable) 1995-96

Application — graduate and transitional graduate	\$50
Application — undergraduate and transitional undergraduate ...	\$40
Late Payment (see details later in this section)	\$200
Matriculation — undergraduate and graduate	\$70
Credit by Examination — per credit hour	\$70
Validation of Field Experience — per credit hour	\$70
Removal of Incomplete — per course	\$40

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

Residence Charges 1995-96

Double Occupancy	\$3,306 for academic year
	\$1,102 per quarter
Single Occupancy	\$4,443 for academic year
	\$1,481 per quarter
Deposit.....	\$100

Board

Alternate a la carte meal plans are available, ranging in price from \$1,233 to \$1,785. All residence hall students, except those living in Campion, are required to purchase a plan. Campion students can use existing kitchen facilities and choose not to purchase a plan. For information contact the director of Residential Life, 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 Stafford, unsubsidized Stafford, and WSNB checks, signing of Perkins, nursing and institutional loan documents, monitoring the repayment process and collection of 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 insurance. An insurance waiver can be obtained from the International Student Center upon proof of 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).

Tuition Due Dates

Tuition and fees are due and payable on or before:

Fall quarter	September 15
Winter quarter	December 15
Spring quarter.....	March 15
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 98124-0064. 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 6 p.m. Mon-Tues, or between 8:30 a.m. and 4:30 p.m. Wed-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 9/15/95.)
- 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 A and B until it is paid in full. Call (206) 296-5899 for information on SU 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 6 p.m. (Mon-Tues) or between 8:30 a.m. and 4:30 p.m. (Wed-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 \$15 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. 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

Withdrawals (full or partial)

1 to 5 class days	100 percent
6 to 10 class days	80 percent
11 to 15 class days	70 percent
16 to 20 class days	60 percent
21 to 25 class days	50 percent
26 to 30 class days	40 percent
Thereafter	No refund

Refunds are based on the number of consecutive 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. Stafford 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.

Tuition Refund Insurance

Tuition refund insurance is available to cover tuition charges if the student must withdraw for medical reasons. Coverage must be purchased prior to the beginning of the term. Contact the Controller's Office for an application form.

Overpayment of Account (credit balance)

Credit balances created by financial aid or overpayment will be refunded to the student. Refunds will be made by check or credit card, depending on the student's original method of payment. Refunds are 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.

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 10 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 is permitted to register for courses without obtaining college credit. Auditors must be admitted and must obtain permission from the faculty. (The Alumni Audit program is available to alumni through the Alumni Relations Office.)

Certificate—A document awarded by the university 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.

Fifth-Year Student—A student who has completed a baccalaureate degree and is admitted for further undergraduate study toward a certificate, graduate program prerequisites, or no specific objective.

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.

Intersession—A short term which follows the summer quarter, usually from mid-August to mid-September.

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, professional, or fifth-year program.

Minor—A secondary field of study. Minors are described in the school and college sections of this bulletin.

Part Time—For academic reporting, a program of fewer than 12 credits is considered part time for undergraduate students; half-time is six to eight credits. For graduate students, eight credits is a full-time load; three to four credits is a half-time 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.

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.

Readmission—Procedure whereby a student who has been absent from the university requests permission to re-enroll.

Registration—Official enrollment in the university in which a student sees an adviser, selects courses, and secures spaces in those courses each quarter.

Regular Student—A matriculated student pursuing a degree.

Special Student—The special student designation may be granted to students who do not meet the standard admission requirements. This is a temporary status and is available for undergraduate courses only with the approval of the dean of the school or college.

School—An academic division within the university in which academic departments reside.

Transcript—A copy of the student's permanent record at Seattle University.

Transfer Credit—Credit awarded to a student for work completed at another accredited college or university.

Transfer Student—One who is admitted to Seattle University having previously completed work at another college or university.

Transitional Student—A non-matriculated student admitted for no more than two quarters to take undergraduate course work. Transitional students who wish to continue enrollment after two quarters must apply for regular status.

Withdrawal—Official notification to the university by a student that he or she will not complete a course. Withdrawals are filed with the registrar.

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.

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

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.

Classification of Students

(Policy 82-2)

Regular undergraduate students are classified as follows:

Freshman	0 to 44.9 credits completed
Sophomore	45 to 89.9 credits completed
Junior	90 to 134.9 credits completed
Senior	135 or more credits completed

Other students are classified as follows:

Fifth-year—Post-baccalaureate students not seeking an advanced degree.

Graduate—Post-baccalaureate students admitted to Graduate School for a master's, educational specialist, or doctoral degree program.

Special—An undergraduate student awaiting approval for regular status.

Transitional—Non-matriculated students registering for two quarters only.

Auditors—Non-matriculated students registering for audit 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, an academic action 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 and above are graduate courses (graduate standing is required to register for courses numbered 500 or above)

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 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 has already 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 within a given field of study may receive advanced credit in subject matter more elementary than that for which credit has previously been earned.
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 apply to the dean, registrar, 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.

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

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

Grading System

Since fall 1988 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
E	0.0 Failing

The grades of CR, I, M, N, NC, P, Q, R, S, W, Y or YW have no quality point value.

CR—Credit

Grade assigned in a course which is designated by the department to be

only graded CR/E. Minimum acceptable performance is D-. Failure to meet that minimum results in a grade of E, which is reflected in the grade point average. Satisfactory performance results in credit completion but does not affect the grade point average.

Also grade assigned in a course through credit by examination. Students who pass the examination with an achievement level of C or better will have a CR posted to the record and credit is granted. Performance below the level of C results in an NC and no credit is granted. Neither CR nor NC will affect the grade point average.

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, a notice of incomplete grade form must be filed with the dean. This form will state what work remains to be completed to obtain a final grade. The student has six weeks after the beginning of the next quarter to complete the specified work. If the specified work has been completed, the student must pay the incomplete removal fee and file with the Registrar an official incomplete removal form to have the final grade posted to the transcript. If the grade is an E, the final grade will be posted without student payment of the incomplete removal fee. (I grades assigned spring quarter must be removed by six weeks after the beginning of the fall quarter). Once a degree has been posted, removal of an I grade is not permitted.

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, reregistration 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—Grades

Received	Must be Removed Before
Summer term	August 1 of the following calendar year
Fall term	December 1 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

Grade assigned when student passes a course after electing the pass/fail grading option. A maximum of 10 credits may be selected for this option and the P grade has no effect on the grade point average. Failure to achieve at the minimum D- level results in a grade of E, which will affect the grade point average. Refer to Pass/Fail option under Grading Alternatives.

Q—A Suspended Grade

For courses at the 600 level only, in which work is not scheduled for completion until after the quarter closes. Because of the nature of these courses, which often extend beyond a year, no four-quarter time limit is required.

R—Research in Progress

Doctoral program only.

S—Satisfactory

A satisfactory grade that may be given for thesis, research, independent study, off-campus courses, field-experience type courses, and in non-credit courses.

W—Withdrawal

Official withdrawal

Y—Audit

A course for which no credit is given.

YW—Audit Withdrawal

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

Grading Alternatives

Pass/Fail Option (P/E)

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/E only during the drop/add period.
 2. Ten quarter credits graded P/E, regardless of number of courses, is the maximum acceptable toward a bachelor's degree.
 3. The P/E grading option is not allowed for major or college requirements or university core. Should the student elect a course P/E 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/E course may be selected in a given quarter.
 5. No graduate courses (500-699) are open to P/E grading.
- Courses elected as P/E will appear on the student's permanent record and will be graded: P (Pass) Minimum passing grade equivalent to D-; E (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 E, or failing grade, 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/ E do not count toward this total of 90.

Mandatory Credit/Fail (CR/E)

Music practice courses, some field experiences, internships, and independent study in the Albers School of Business and Economics and other courses so designated by individual departments are only graded credit (CR) or fail (E). When passed with the minimum acceptable standard of D- or above, 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 E and will be included in the computation of the grade point. To qualify for graduation with honors, a minimum of 90 credits must be completed at Seattle University graded A through D-. Credits from mandatory CR/E courses will not count toward the 90 minimum.

Credit/No Credit (CR/NC)

The CR/NC grading mode is reserved for 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.

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.

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. A minor can be earned in a liberal studies, ecological studies, international studies, or general science major using no more than 15 credits from courses comprising one of these multi-discipline majors.
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

(Policy 76-10)

Readmission must be requested by all students, both graduate and undergraduate, if their absence from Seattle University has been four consecutive quarters or more. 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.

A re-entering student who has attended another post-secondary institution since withdrawing from Seattle University must submit an official transcript before the application for readmission can be considered. Credit for courses completed elsewhere may be transferred according to the conditions listed under Transfer of Credit from Other Institutions in this bulletin.

Students who have been absent from the university for more than one calendar year will be held to degree requirements in effect at the time of re-admission.

Students readmitted to the university in fall 1991 and following who had completed the old core curriculum before taking a leave of absence may graduate under that old core plan, even though they have been away from the university for one calendar year or more. Other students who return to complete their degrees after more than one year's absence will complete the university core curriculum as outlined in this bulletin.

Records

(Policy 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 hold against the transcript of a student with a financial obligation and to deny reregistration until all debts owed the university have been paid. 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 late are held responsible for absences thus incurred. No person may attend any university course unless officially registered. A late tuition payment 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 E 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. The grade earned the second time will be posted to the permanent record. The grade earned the second or most recent time 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. No student will be allowed to register for any single required course more than three times, including registrations resulting in grades of NC, I, and W.

If credit has been granted 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 are granted. 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.

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

Transcripts

(Policy 76-3)

Students may obtain official transcripts 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.

Transcripts and other enrollment certifications should be requested at least one week before they are required. 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.

Transfer of Credit from Other Institutions

(Policies 77-1 and 79-1)

Regular undergraduate students who have attended other regionally accredited colleges 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 will be 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) is the minimum.

Beginning fall 1995, the lowest acceptable grade in transfer for any course will be C- or 1.5 on the decimal system except for departmental requirements as stated above, for which the minimum will remain 2.0.

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.
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 final 45 credits of the degree 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 will be reviewed to determine applicability of credit to the major.
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.

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 and registrar, in that order, for approval and signature. Failure to officially withdraw from a course will result in a grade of E on the student's academic record.

The official withdrawal is completed only when the approved form is presented to the registrar within the specified time limit. A grade of W will be allowed until the end of the seventh week of any quarter.

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 these deadlines: fall, winter, spring—December 1; summer—July 31. 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.

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 re-admitted after an absence of one calendar year or who change their majors are held to degree requirements in effect at the time of re-admission or change of major. Students may, by academic action, 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 all 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 credits of degree requirements. 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 requirements of 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:
 - a. Pass an upper-division ethics course or must take one at Seattle University;
 - b. Pass a religious studies core-type course or must take one at Seattle University;
 - c. One senior synthesis is adequate unless the two degrees require specific and different courses.

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 form, "Request for Certification of Degree Completion After Commencement with Deficiencies." When degree requirements are fulfilled and forms have been submitted, degrees and honors will be posted on transcripts. Diplomas will 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/E 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/E grades are mandatory for required courses, such courses may be allowed toward the minimum 90 credits, but no student may be considered for honors with fewer than 80 graded credits. Petitions for honors under this condition must be filed with the dean and the registrar six weeks prior to the anticipated completion date.

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, Assistant to the President for Jesuit Identity

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 a more 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:

- A. Foundational Habits—Facility in asking the right questions, in critical and creative thinking, in writing and speaking skills, and in mathematical literacy.
- B. 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.

The following three-phased core curriculum is required of (a) all first-year students matriculating in 1987-88 or later; (b) all transfer students with freshman standing (fewer than 45 credits completed) matriculating in 1989-90 or later; (c) all transfer students with fewer than 90 credits in transfer matriculating in 1990-91; and (d) all students admitted to the university fall 1991 or later.

Phase One

Foundations of Wisdom

Writing/Thinking Sequence 10

EN 110 Freshman English 5

PL 110 Introduction to Philosophy and Critical Thinking 5

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

EN 120 Masterpieces of Literature 5

Choose one of the following two courses:

HS 120 Origins of Western Civilization 5

HS 121 Studies in Modern Civilization 5

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 HS 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

FA 120 Experiencing the Arts 5

Phase Two

Person in Society

Study of Person Sequence 10

PL 220 Philosophy of the Human Person 5

Social Science I 5

(Choose one: PSY 120, SC 120, EC 120, PLS 120, ISS 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:

EC 271 Principles of Economics: Macro 5

EC 272 Principles of Economics: Micro 5

PLS 205 Intro to American Politics 5

PLS 231	Diversity and Change	5
PLS 253	Intro to Political Philosophy	5
PLS 260	Intro to Global Politics	5
PSY 210	Personality Adjustment	5
PSY 220	Individual and Society	5
SC 210	American Society and Culture	5
SC 222	Social Psychology	5
SC 230	Cultural Anthropology	5

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 RS 200-299.

Phase Three **Responsibility and Service**

Ethics 5

Choose one of the following options:

PL 312	Social Ethics	5
PL 345	Ethics	5
PL 351	Business Ethics	5
PL 352	Health Care Ethics	5
PL 353	Ethics in Science/Technology	5
PL 354	Ethics and Criminal Justice	5
PL 358	Communication Ethics	5
PL 359	Professional Ethics	5

Theology and Religious Studies Phase III 5
Any approved five-credit course selected from RS 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 each quarter 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.

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 PL 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:

PL 210	Philosophy of the Human Person	5
RS	Elective 200-level	5

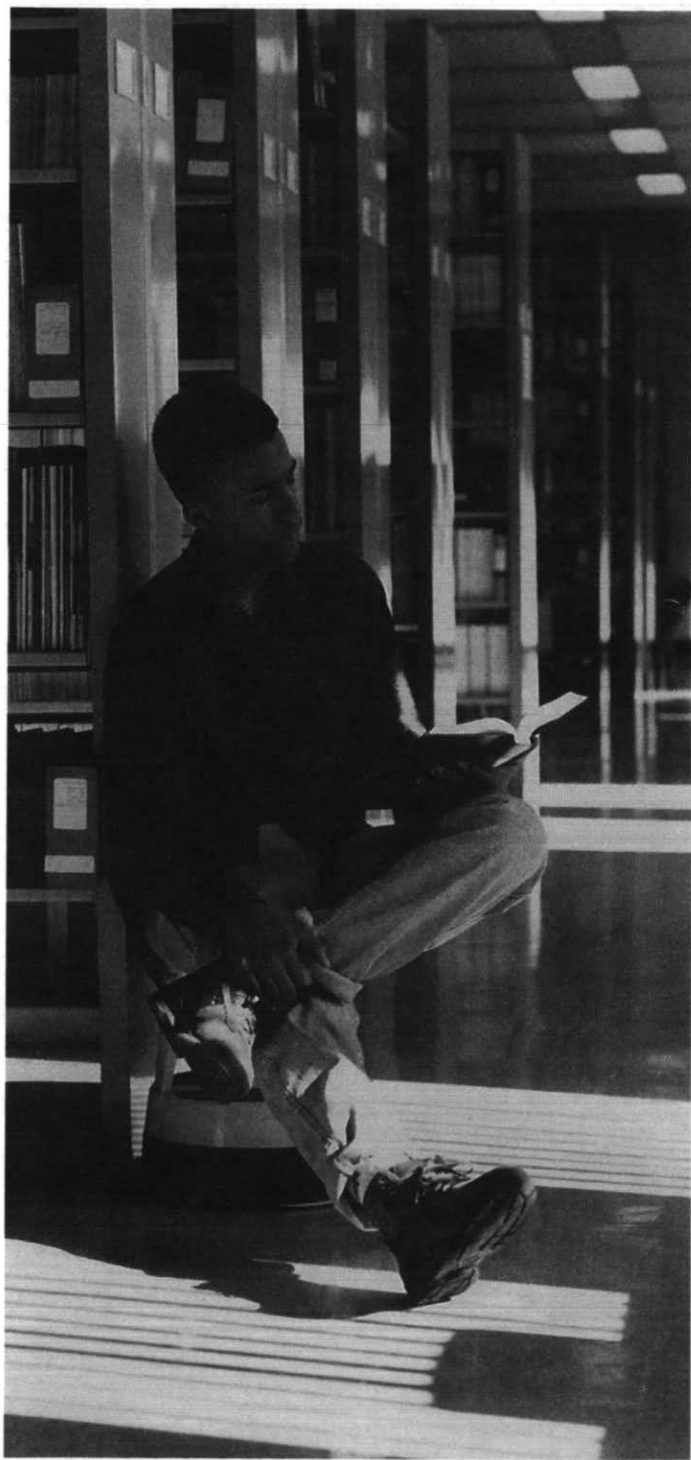
Consult philosophy and theology departmental descriptions for specific requirements for entering other courses.

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. The quarterly schedule of classes will indicate interdisciplinary and senior synthesis offerings each term.



College of Arts and Sciences

Stephen C. Rowan, PhD, Acting Dean

Objectives

The College of Arts and Sciences, the oldest and largest undergraduate division of Seattle University, is dedicated to the ideal that a liberal education in the arts and sciences best prepares a student for a rewarding and fruitful life. The central belief upon which the college is based is that its students must be prepared to make a living, but also live full and meaningful lives. All undergraduate students in the university take core courses in the college, for in them are found the intellectual, social, cultural, and spiritual riches of human history.

The college aims at developing depth in some one area of knowledge, as well as the breadth of learning and understanding that is essential to an intellectually challenging human life. Students are led, by means of the various academic disciplines, to see the world in its major aspects of reality. They are helped to discover the interrelationships of the physical, social, and aesthetic dimensions of the world, along with their own relationship to the world—especially their power and responsibility to shape it for their future.

Organization

The college comprises 18 administrative subdivisions, of which 12 are departments in specific academic subjects. The departments are Communication; Criminal Justice; English; Fine, Applied, and Performing Arts; Foreign Languages; History; Military Science; Philosophy; Political Science/Public Administration; Psychology; Sociology; 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 HS 121 or HS 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 transitional 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 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
ADD 480 Introduction to Alcohol and Drug Addiction	
PSY 490 Introduction to Alcohol and Drug Addiction	
ADD 402 Counseling, Alcohol and Drugs	3
ADD 405 Addiction: Law and Public Policy.....	2
ADD 407 Field Experience	3
ADD 412 Group Process in Treatment	3
ADD 414 Case Management and Record Keeping.....	3
ADD 418 Addiction and the Family	3
ADD 428 Ethics for Addiction Professionals.....	3
ADD 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

- ADD 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: ADD 480.
- ADD 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: ADD 480.
- ADD 407 Field Experience 3**
Supervised work in an agency, clinic, rehabilitation center or referral center. Oral and written reports by student required. Prerequisite: ADD 402. Mandatory CR/E grading.
- ADD 408 Field Experience 2 3**
Supervised work in an agency, clinic, rehabilitation center or referral center. Oral and written reports by student required. Prerequisite: ADD 407. Mandatory CR/E grading.
- ADD 410 Individual Research 1-3**
Open only to students with sufficient academic background to pursue independent study. Prerequisite: Permission of Director.
- ADD 411 Advanced Counseling 2**
Instruction and supervised practice in techniques of special value in counseling alcoholics and other drug addicts. Videotape equipment used. Prerequisite: ADD 400, 402.
- ADD 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: ADD 402.
- ADD 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: ADD 402.

ADD 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.

ADD 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: ADD 402.

ADD 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: ADD 480.

ADD 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: ADD 402.

ADD 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: ADD 480.

ADD 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.

ADD 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.

ADD 491 Special Topics 1-5 credits

ADD 492 Special Topics 1-5 credits

ADD 493 Special Topics 1-5 credits

Communication

Gary Atkins, MA, Chairperson

Objectives

The Communication Department provides courses designed to give students an awareness of the role of communications in society, as well as practical experience in developing their own 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 graphics skills. Journalism and mass communication majors can emphasize preparation for either journalistic careers in print or broadcast media, or public relations careers for government or organizations.

Degree Offered

Bachelor of Arts

Majors Offered

Communication Studies

Journalism/Mass Communication

(with specialties in news-editorial and 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, students must complete 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101 or 107 or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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 (PL 358 recommended)	.....	5
Theology and Religious Studies Phase III (300-399)	.....	5
Interdisciplinary Course	.....	3 to 5
Senior Synthesis (COM 490 required)	.....	5

See detailed core curriculum information beginning on page 55.

II. College of Arts and Sciences Requirements

Foreign Language 115, 125, 135 or equivalent

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:

HS 121	Studies in Modern Civilization	5
HS 231	Survey of the United States	

III. Major Requirements

Fifty credits in communication, including:

COM 200	Media, Society, and the Individual	5
COM 201	Dynamics of Communication	5
COM 230	Public Speaking	5
COM 260	Interpersonal Communication	5
COM 350	Persuasion	5
COM 361	Small Group Communication	5

COM 383	Organizational Communication	5
COM 431	Communication and Motives: Advanced Rhetorical Theory	5
COM	Electives (300-level or above)	10
	(Must be approved by adviser)	

IV. Other Program Requirements

*Communication-related course outside major	5
Elective (300-level or above, approved by academic adviser)	5

Please Note: *Should include, but not be limited to, communication-related offerings in drama, English, journalism, foreign language, psychology, sociology, or business. Must be approved by adviser.

Bachelor of Arts Major in Journalism/Mass Communication Journalism Track

In order to earn the bachelor of arts degree with a major in journalism/mass communication with a journalism track, students must complete 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101 or 107 or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	
PL 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 (PL 358 recommended)	.....	5
Theology and Religious Studies Phase III (300-399)	.....	5
Interdisciplinary Course	.....	3 to 5
Senior Synthesis (COM 489 required)	.....	5

See detailed core curriculum information, beginning on page 55.

II. College of Arts and Sciences Requirements

Foreign Language 115, 125, 135, or equivalent	15
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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

HS 121 Studies in Modern Civilization

HS 231 Survey of the United States

III. Major Program Requirements

Fifty-five credits in communication, including:

COM 200 Media, Society, and the Individual 5

COM 201 Dynamics of Communication 5

COM 210 Introduction to Media Writing 5

COM 220 Writing for Journalism 5

COM 300 Investigative Information-Gathering 5

COM 400 Communication Rights and Law 5

COM Approved Electives (300-level and above) 10

Choose a total of five credits from the following courses: 5

COM 280 Practicum I (1)

COM 281 Practicum II (1)

COM 282 Practicum III (1)

COM 380 Practicum IV (1)

COM 381 Practicum V (1)

COM 382 Practicum VI (1)

COM 496 Internship (1 to 5)

COM 497 Internship (1 to 5)

COM 498 Internship (1 to 5)

Choose one of the following four courses: 5

COM 221 Writing for Public Relations

COM 305 Broadcast Writing

COM 315 Magazine and Feature Writing

COM 320 Persuasive and Critical Writing

Choose one of the following two advanced courses: 5

COM 330 Introduction to Graphic Communication

COM 335 Introduction to Video Communication

IV. Other Program Requirements

*Communication-related course outside major 5

Elective (300-level or above, approved by academic adviser) 5

Please Note: *1. Should include, but not be limited to, communication-related offerings in communication studies, drama, English, foreign language, psychology, sociology, or business. Must be approved by adviser. 2. Students lacking the recommended core background should consult with their journalism and mass communication adviser before enrolling in advanced COM courses (300-level or 400-level). Preparatory work may be required as a condition for admission to advanced COM courses. In addition to

completing the necessary course work, majors who intend to pursue careers in journalism or public relations are expected to gain experience and to build a portfolio of work by participating in student media and in off-campus internships.

Bachelor of Arts Major in Journalism/Mass Communication Public Relations Track

In order to earn the bachelor of arts degree with a major in journalism/mass communication with a public relations track, students must complete 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101 or 107 or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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 (PL 358 recommended)	.....	5
Theology and Religious Studies Phase III (300-399)	.....	5
Interdisciplinary Course	.....	3 to 5
Senior Synthesis (COM 489 required)	.....	5

See detailed core curriculum information beginning on page 55.

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

HS 121	Modern Western Civilization
HS 231	Survey of the United States

III. Major Requirements

Fifty-five credits in communication, including:

COM 200	Media, Society, and the Individual	5
COM 201	Dynamics of Communication	5
COM 210	Introduction to Media Writing	5
COM 221	Writing for Public Relations	5
COM 370	Public Relations: Cases and Strategies	5
COM 400	Communication Rights and Law	5
COM	Approved electives (300-level and above)	10

Choose five credits from the following courses:

COM 280	Practicum I (1)	
COM 281	Practicum II (1)	
COM 282	Practicum III (1)	
COM 380	Practicum IV (1)	
COM 381	Practicum V (1)	
COM 382	Practicum VI (1)	
COM 496	Internship (1 to 5)	
COM 497	Internship (1 to 5)	
COM 498	Internship (1 to 5)	

Choose one of the following five advanced courses:

COM 220	Writing for Journalism	
COM 300	Investigative Information-Gathering	
COM 305	Broadcast Writing	
COM 315	Magazine and Feature Writing	
COM 320	Persuasive and Critical Writing	

Choose one of the following two advanced courses:

COM 330	Introduction to Graphic Communication	
COM 335	Introduction to Video Communication	

IV. Other Program Requirements

*Communication-related course outside major

Elective (300-level or above, approved by academic adviser)

Please Note: *1. Should include, but not be limited to, communication-related offerings in communication studies, drama, English, foreign language, psychology, sociology, or business. Must be approved by adviser. 2. Students lacking the recommended core background should consult with the journalism/mass communication adviser before enrolling in advanced COM courses (300-level or 400-level). Preparatory work may be required as a condition for admission to advanced COM courses. In addition to completing the necessary course work, majors who intend to pursue careers in journalism or public relations are expected to gain experience and to build a portfolio of work by participating in student media and in off-campus internships.

Minor in Communication Studies

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

COM 200	Media, Society, and the Individual	5
COM 201	Dynamics of Communication	5
COM 230	Public Speaking	5
COM 260	Interpersonal Communication	5
COM 361	Small Group Communication	5
COM	Approved elective (300-level or above)	5

Minor in Journalism/ Mass Communication

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

COM 200	Media, Society, and the Individual	5
COM 210	Introduction to Media Writing	5
COM 400	Communication Rights and Law	5
COM	Approved elective (300-level or above)	5

Choose one of the following two writing courses

COM 220	Writing for Journalism
COM 221	Writing for Public Relations

Choose at least one of the following four courses:

COM 300	Investigative Information-Gathering	5
COM 305	Broadcast Writing	5
COM 315	Magazine and Feature Writing	5
COM 320	Persuasive and Critical Writing	5

See policy for minors on page 46.

Communication Courses

COM 200 Media, Society, and the Individual 5

Examination of the relationship between media and the individual in society; impact of mass communication upon interpersonal communication; development of the mass media and theories of its role; issues raised by the creation of information societies.

COM 201 Dynamics of Communication 5

Theoretical approaches to understanding the process of communication as it occurs in both interpersonal and media settings. Emphasis on models and methodologies of communication. Overview of the communication discipline and rhetorical tradition.

COM 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.

COM 220 Writing for Journalism 5

Writing and editing news and feature stories for the print media. Practice in writing, source development, and coverage of beats. Prerequisite: COM 210 and permission. (Previously Media Writing II.)

COM 221 Writing for Public Relations 5

Writing and editing press releases, reports and other materials for public relations. Prerequisite: COM 210 and permission.

COM 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.

COM 235 Communication 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: EN 110. Business majors only, except by permission. (Previously COMC 240.)

COM 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.

COM 260 Interpersonal Communication 5

Communication theory and its application between two or more people. Development of knowledge, skills, and insights into interpersonal communication effectiveness.

COM 280 Practicum I 1

COM 281 Practicum II 1

COM 282 Practicum III 1

Supervised on-campus practice in writing and editing stories for media audiences.

COM 291 Special Topics 1 to 5

COM 292 Special Topics 1 to 5

COM 293 Special Topics 1 to 5

COM 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: COM 220 or permission. (Previously titled Reporting Public Affairs.)

- COM 305 Broadcast Writing 5**
Techniques of writing news and features for the electronic media. Writing for sound and pictures. Broadcast media style considerations. Prerequisite: COM 220 or 221 and permission.
- COM 315 Magazine and Feature Writing 5**
Techniques of writing non-fiction articles for magazines; shaping stories for particular magazine markets and audiences; differences in writing for newspapers and magazines; aspects of freelancing. Prerequisite: For COM majors, COM 220 or COM 221 and permission. For non-COM majors, permission of instructor.
- COM 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: COM 220, COM 221 or EN 308 and permission.
- COM 330 Introduction to Graphic Communication 5**
Fundamentals of visual literacy and communication in the printed mass media. Using computer-assisted graphic design to communicate ideas and information to audiences. Junior or senior standing.
- COM 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: COM 330.
- COM 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: COM 305 or permission. (Previously titled Production and Editing: Electronic Media)
- COM 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. Prerequisite: COM 335
- COM 340 Advanced Photography 5**
Photographic "seeing" and printing technique. Individual projects emphasizing advanced topics in black-and-white photography. Ethical issues confronting photographers. Students must have use of adjustable 35 mm camera. Lab fee. Prerequisite: COM 240 or equivalent.
- COM 350 Persuasion 5**
Basic concepts of persuasion, including definition, nature, functions, and ethics of persuasion. Focus on processes of change and systems of thought, symbol and action in interpersonal and public arenas. Prerequisite: COM 201 or permission of instructor. (Previously COMC 331)

- COM 361 Small Group Communication 5**
 Experiential-based course designed to improve communication skills and increase awareness of various communication styles in a variety of small-group settings. Focus on small-group theory, problem-solving group behavior, individual communication styles, listening skills, nonverbal behavior, congruent messages. Prerequisite: junior or senior standing and COM 201, or equivalent as approved by department chair. (Previously COM 361/2.)
- COM 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.
- COM 380 Practicum IV 1**
COM 381 Practicum V 1
COM 382 Practicum VI 1
 Supervised work in writing, editing, or graphics on campus media. Prerequisite: COM 280-2.
- COM 383 Organizational Communication 5**
 Theories and processes of communication in organizations, including analysis of communication styles and modes in organizations, communication variables and strategies, coping with organizational situations. Prerequisite: COM 201 or equivalent as approved by instructor.
- COM 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: COM 201 and junior level standing.
- COM 391 Special Topics 1 to 5**
COM 392 Special Topics 1 to 5
COM 393 Special Topics 1 to 5
- COM 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 COM 360.)
- COM 425 History of Mass Communication 5**
 Examination of the history of mass communications with an emphasis on the relationship of communication to the manner in which societies construe reality and channel power. The evolution of the concept of news and its changing structure; significant historical figures and institutions in the development of mass media. Prerequisite: junior or senior standing.

COM 431 Communication and Motives: Rhetorical Theory 5

Study of issues that have been prominent throughout the history and development of the theory, practice, and criticism of rhetoric (the potency of thought in expression). Organized by a thematic exploration of the nature, function, and scope of rhetoric as it responds and is related to various realms of inquiry and professional human endeavor. Prerequisites: COM 200, 201, 230, 350, and senior standing.

COM 460 Communication and Social Behavior 5

Advanced study of communication theory and its relation to the formation of self and society. Emphasis is placed on theories of symbolic interaction, meaning, semantics, and psycholinguistics. Prerequisites: COM 201 and senior standing.

COM 480 Interdisciplinary Core Courses 3 to 5

Title and content vary.

COM 489 Senior Synthesis: Media and Social Change 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.

COM 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 or undergraduate thesis. Senior synthesis course for communications studies majors. Open to non-majors with instructor permission. (Previously titled Images and Choices)

COM 491 Special Topics 1 to 5

COM 492 Special Topics 1 to 5

COM 493 Special Topics 1 to 5

Title and content vary.

COM 496 Independent Study/Internship 1 to 5

COM 497 Independent Study/Internship 1 to 5

COM 498 Independent Study/Internship 1 to 5

Special projects. Internships in the mass media. For senior majors only. Permission of instructor and department chair required.

Criminal Justice

Michael M. Kelliher, SJ, DCrim, Chairperson

Objectives

The Criminal Justice Department's objective is to give students an overview of the entire system, and then encourage them to consider the component parts of that system. Course clusters are offered in the areas of research and planning, criminal law, enforcement, the offender, 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 Criminal Justice Department 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 department is one which reflects the basic foundation of Jesuit education—reflection and action. We seek to develop a spirit of inquiry in students that asks “why not?” of things not tried. The department 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 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101 or 107 or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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 beginning on page 55.

II. College of Arts and Sciences Requirements

Foreign Language 115, 125, 135, or equivalent

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:

HS 121	Studies in Modern Civilization	5
HS 231	Survey of the United States	

III. Major Requirements

Sixty credits in criminal justice, including:

CJ 110	Introduction to Criminal Justice	5
CJ 200	Deviant Behavior	5
CJ 209	Criminological Theories	5
CJ 300	Society and Justice	5
CJ 312	Criminal Law	5

CJ 318	The Punishment Response	5
CJ	Electives	30

Please Note: Only 30 credits may transfer to the criminal justice major from a community college.

Minor in Criminal Justice

In order to earn a minor in criminal justice, students must complete 35 credits in criminal justice, including the following:

CJ 110	Introduction to Criminal Justice	5
CJ 200	Deviant Behavior	5
CJ 318	The Punishment Response	5
CJ	Electives	20

See policy for minors on page 46.

Criminal Justice Courses

CJ 110 Introduction to Criminal Justice 5

A survey of criminal justice processes from arrest through release, the relationships of police, prosecutor, defense, the courts and prison, as each integrates into a system. CJ 110 or equivalent is required for all majors.

CJ 200 Deviant Behavior 5

An overview of what American society generally regards as deviant behavior. Emphasis is placed on the results of stigmatization and the acceptance of low self-esteem. Biological, psychological, and sociological models of deviancy will be discussed. CJ 200 is required for all majors. Also offered as SC 319.

CJ 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. CJ 209 is required for all majors.

CJ 211 Juvenile Offenders 5

An examination of the contemporary continuum of juvenile offenses, ranging from truancy to the drug scene. Juvenile crime as distinguished from adult crime will be discussed, as well as the interaction between the two.

CJ 213 Juvenile Corrections 5

An explanation of the complex problems involved in juvenile corrections, including probation, institutional care, and aftercare.

CJ 215 Careers in Criminal Justice 5

An overview of the career choices for women and men in the field of criminal justice. Pertinent social and cultural barriers will be assessed especially for career women in this field. Legal issues will be defined and evaluated; and career challenges and goals of successful people working in the criminal justice field will be examined.

- CJ 218 Criminal Justice Research Methods 5**
 A review of statistical procedures and an introduction to the use of the computer in research. Introductory students will acquire knowledge of the basics of criminal justice research, as well as learn how to evaluate and think critically about the techniques of data collection, analysis, and presentation.
- CJ 291 Special Topics 1 to 5**
CJ 292 Special Topics 1 to 5
CJ 293 Special Topics 1 to 5
- CJ 300 Society and Justice 5**
 An analysis of the meaning of justice in Western culture, and its relationship to the criminal justice system. CJ 300 is required for all majors.
- CJ 303 Juvenile Justice Systems 5**
 Examination and study of contemporary police-juvenile operations. Theory and examination of the juvenile justice system. Relationship between the juvenile officer, crime prevention, and community relations.
- CJ 306 Police and the Community 5**
 The role of the police in the community, relationships with individuals, groups, and community organizations. Analysis of ethnic, cultural, and economic differences as factors in the administration of justice.
- CJ 309 Community Corrections 5**
 A study of community reintegration, community treatment centers, graduated release, and the use of volunteers and offenders as manpower sources, including current models of probation and parole.
- CJ 312 Criminal Law 5**
 Study of criminal law processes from detention to appeal. State and federal rules of criminal procedure. Understanding of policies, due process, self-incrimination, right to counsel, and other Constitutional issues. CJ 312 is required for all majors.
- CJ 315 Criminal Procedure 5**
 A review of U.S. Supreme Court rulings on search and seizure, due process, self-incrimination, right to counsel, and other Constitutional issues.
- CJ 317 The Criminal Trial 5**
 An examination of the positive and negative aspects of the criminal trial from the perspective of the judge, prosecutor, defense attorney, defendant, witnesses, and jurors.
- CJ 318 The Punishment Response 5**
 A social history of the punishment response to the phenomenon of crime, considering the origins, principles, science, and society's justification for punishment. CJ 318 is required for all majors.

- CJ 321 Polygraph 5**
An introduction to the science of polygraph, including its history, validity and reliability, use in courts, techniques, and ethics.
- CJ 324 Comparative Criminal Justice Systems 5**
Comparative analysis of criminal justice systems in the United States and selected foreign countries; emphasis on the organizational aspects and processes.
- CJ 391 Special Topics 1 to 5**
CJ 392 Special Topics 1 to 5
CJ 393 Special Topics 1 to 5
- CJ 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.
- CJ 402 White Collar Crime 5**
A comprehensive overview of criminal activity in the upper echelons of American society; e.g., corporate offenses, consumer fraud, misuse of computers, illegal practice in the professions, and political deviance.
- CJ 404 Career Offenders 5**
An analysis of professional crime and organized crime from the viewpoint of the sociology of work; the criminal's utilization of technological change and the response of the criminal justice system.
- CJ 406 Female Offenders 5**
A study of the classical and contemporary accounts of the etiology of female crime, patterns of female criminal behavior, and the role and treatment of women in the criminal justice system.
- CJ 408 Violent Offenders 5**
A study of the history and theory of violence, including profiles of violent offenders in the United States. An analysis of the violent mind and legal implications.
- CJ 410 Sexual Deviance and the Law 5**
Analysis of definition, problems, formal, legal and social constraints, and the criminal justice system's reaction to deviants.
- CJ 412 Adult Corrections 5**
A study of the post-arrest treatment methods applied to adult offenders. An in-depth look at the history, philosophy, and detention practices of adult prisons.

- CJ 451 Criminal Justice Administration 5**
Examination of police, courts, and corrections from organizational perspectives. Issues of management and leadership applied to the administration of justice.
- CJ 452 Criminal Justice Planning 5**
Introduction to planning concepts and methods, with application to both the criminal justice system and its operational agencies. Special focus on crime trends that affect the future.
- CJ 454 Criminal Justice Public Policies 5**
Analysis of public policies designed to prevent and respond to crime. Critical examination of the controversies, interests, and values that compete in the development of criminal justice policy.
- CJ 456 The Computer and the Criminal Justice System 5**
This non-programming course uses existing computer programs or program "packages" to solve statistical problems. The course consists of both lectures and laboratory experience at a computer terminal. Prerequisite: An introductory course in statistics, upper division standing, and permission.
- CJ 458 Field Experience I 5**
CJ 459 Field Experience II 5
Direct observation, supervised practical experience, and academic study in a selected law enforcement agency or organization in the criminal justice system. CR/NC grading mandatory. Prerequisite: upper division standing and permission.
- CJ 461 Senior Seminar 3 to 5**
- CJ 480 Interdisciplinary Core Course 3 to 5**
Title and content change each term.
- CJ 491 Special Topics 1 to 5**
CJ 492 Special Topics 1 to 5
CJ 493 Special Topics 1 to 5
Prerequisite: upper division standing and permission.
- CJ 496 Independent Study 1 to 5**
CJ 497 Independent Study 1 to 5
CJ 498 Independent Study 1 to 5
Prerequisite: upper division standing and permission.
- CJ 499 Research Assistantship 1 to 5**
This course provides students with hands-on experience for conducting research on justice-related issues in criminal justice and community settings. Students will be required to engage themselves in all phases of the research process—research design, contacting agencies, literature review, data collection, data analysis, conducting interviews, and preparing an article for journal submission and presentation at academic and/or professional conferences.

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.

Degree Offered

Bachelor of Arts in Economics

Minor Offered

Economics

See Albers School of Business and Economics section, page 220, for detailed information on degree program and the minor in economics.

English

David J. Leigh, SJ, PhD, Chairperson

Edwin Weihe, PhD, Director, Creative Writing Program

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 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
MT	101 or 107 or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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 beginning on page 55.

II. College of Arts and Sciences Requirements

Foreign Language 115, 125, 135, or equivalent	15
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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
HS 121 Studies in Modern Civilization	
HS 231 Survey of the United States	

III. Major Requirements

Fifty credits in English, including:	
EN 255 Literary Studies I	5
EN 256 Literary Studies II	5
EN 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, EN 110, EN 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 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

EN 110 Freshman English	5
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PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
MT	101 or 107 or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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 beginning on page 55.

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

- | | | |
|--------|--------------------------------|--|
| HS 121 | Studies in Modern Civilization | |
| HS 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 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:

EN 255	Literary Studies I	5
EN 256	Literary Studies II	5

Choose one of the following two courses 5

EN 257	Literary Studies III	
EN 258	Creative Writing	

Choose literature electives from at least two of these three areas (300-400 level): 15

- Biblical/ Classical and World
- Medieval/Renaissance
- 18th/19th Century Studies

Choose creative writing courses in at least three genres (300-400 level)	25
Fiction (EN 305, EN 318, EN 402)	
Poetry (EN 316, EN 403)	
Non-fiction (EN 304, EN 414)	
Drama/Film (EN 404, DR 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:

EN 110	Freshman English	5
EN 120	Masterpieces of Literature	5
EN 255	Literary Studies I	5
EN 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 page 46.

Minor in English/Creative Writing

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

EN 110	Freshman English	5
EN 120	Masterpieces of Literature	5
EN 255	Literary Studies I	5
EN 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

- EN 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
- EN 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
- EN 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
- EN 191 Special Topics 1 to 5**
EN 192 Special Topics 1 to 5
EN 193 Special Topics 1 to 5
- EN 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
- EN 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 EN 203. L
- EN 203 Vocabulary 2**
 A study of the principles of word formation, usage, and effective word choice. May be taken in conjunction with EN 202. L
- EN 255 Literary Studies 1: The Writer, the Reader and the Text 5**
EN 256 Literary Studies 2: Texts in Context 5
EN 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.

EN 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.

EN 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.

EN 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.

EN 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

EN 291 Special Topics 1 to 5**EN 292 Special Topics 1 to 5****EN 293 Special Topics 1 to 5****EN 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: EN 110 and junior standing. Permission of the instructor is required. (Formerly EN 405) W

EN 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

EN 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: EN 110 and junior standing. W

- EN 316 Writing Poetry 5**
Study and practice in the modes and techniques of poetic composition. W
- EN 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
- EN 318 Writing for Children 5**
Practice and craft-focused study of literature for children, emphasizing special challenges and responsibilities of the genre. W
- EN 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.
- EN 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
- EN 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
- EN 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
- EN 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
- EN 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
- EN 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

EN 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

EN 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

EN 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

EN 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

EN 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

EN 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

EN 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.

EN 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.

EN 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

EN 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

EN 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

EN 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

EN 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

EN 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

EN 372 American Literature Since 1885**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

EN 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

EN 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

- EN 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
- EN 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
- EN 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.
- EN 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
- EN 391 Special Topics 1 to 5**
EN 392 Special Topics 1 to 5
EN 393 Special Topics 1 to 5
- EN 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
- EN 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: EN 316. W
- EN 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: EN 305. W
- EN 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
- EN 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.

- EN 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.
- EN 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
- EN 435 Short Story Literature 5**
A study of the elements and historical development of the short story in its variety of types and emphases.
- EN 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.
- EN 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
- EN 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
- EN 475 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/E. Prerequisites: junior or senior standing and 20 credits of upper-level English.
- EN 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
- EN 490 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.

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

EN 495 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

EN 496	Independent Study	1 to 5
EN 497	Independent Study	1 to 5
EN 498	Independent Study	1 to 5

Fine, Applied, and Performing Arts

Objectives

Through its degree programs and its service to the university, the Fine, Applied, and Performing Arts Department provides a unique opportunity to assimilate the central values of a liberal education. Its students, through individual courses and major curricula, receive significant training in both the theory and practice of the arts. Consciously avoiding the one-dimensional formation of either a strictly conservatory or an exclusively academic model of arts education, each major offers students a distinctive opportunity to integrate serious reflections and intense participation, providing a well-rounded experience of each discipline.

Degree Offered

Bachelor of Arts

Majors Offered

Fine Arts/Art

Fine Arts/Drama

Minors Offered

Studio Art

Art History

Drama/Production or Performance

Music

Non-Major Students

As elective choices, courses through the 300 level 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. Prerequisites, however, should be noted where they exist.

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/Art

In order to earn the bachelor of arts with a major in fine arts/art, students must complete 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101, 107, or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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 ART 499)		

See detailed core curriculum information beginning on page 55.

II. College of Arts and Sciences Requirements

Foreign Language 115, 125, 135, or equivalent

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:

HS 121	Studies in Modern Civilization
HS 231	Survey of the United States

III. Major Requirements

Sixty credits in fine arts, including:

FA 101	Arts and Ideas	5
ART 221	Drawing	2
ART 222	Drawing	2
ART 223	Drawing	2
ART 231	Design-Emphasis: Two Dimensions	2
ART 232	Design-Emphasis: Color Theory	2

ART 233	Design-Emphasis: Three Dimensions	2
ART 311	Art History-Prehistoric through Gothic	5
ART 312	Art History-Renaissance through 20th Century	5
ART 321	Advanced Drawing	3
ART 334	Printmaking-Emphasis: Relief	2
ART 346	Painting	2
ART 351	Sculpture	2
ART 499	Senior Thesis/Exhibit	3
ART	Electives	11

Choose one of the following three concentrations:

Printmaking

ART 335	Printmaking-Emphasis: Stencil	2
ART 336	Printmaking-Emphasis: Planographic	2
ART 434	Advanced Printmaking	3
ART 435	Advanced Printmaking	3

OR

Painting

ART 347	Painting	2
ART 348	Painting	2
ART 446	Advanced Painting	3
ART 447	Advanced Painting	3

OR

Sculpture

ART 352	Sculpture	2
ART 353	Sculpture	2
ART 451	Advanced Sculpture	3
ART 452	Advanced Sculpture	3

Bachelor of Art Major in Fine Arts/Drama

In order to earn the bachelor of art degree with a major in fine arts/drama, students must complete 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101, 107, or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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 beginning on page 55.

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
HS 121 Studies in Modern Civilization	
HS 231 Survey of the United States	

III. Major Requirements

Sixty-five credits in fine arts, including:

FA 102 Introduction to Theatre	5
DR 100 Voice and Diction	3
DR 220 Acting 1	5
DR 222 Acting 2	5
DR 225 Acting 3	5
DR 264 Stage Craft	3
DR 265 Lighting	3
DR 266 Stage Costuming	3
DR 267 Makeup	2
DR 330 Theatre History I	2
DR 331 Theatre History II	2
DR 332 Theatre History III	2
DR 354 Representative Plays I	3
DR 355 Representative Plays II	3
DR 356 Representative Plays III	3
DR 420 Directing	3
DR 470 Theatre Organization and Management	2
DR Electives	10

Choose one of the following two tracks:

Performance Track	
DR 215 Auditioning Techniques	2
DR 221 Improvisation	3
OR	
Production Track	
DR 280 Stage Management	2

DR 364	Scene Design	3
DR 366	Costume History	3

Please Note: All majors must fulfill a participation requirement each quarter by working in some area on every production.

Minor in Studio Art

In order to earn a minor in studio art, students must complete 30 credits in fine arts, including:

FA 101	Arts and Ideas	5
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Choose one of the following two courses:

ART 311	Art History (Prehistoric through Gothic)	5
ART 312	Art History (Renaissance through 20th Century)	5

	Electives in consultation with an art adviser	20
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See policy on minors on page 46.

Minor in Art History

In order to earn a minor in art history, students must complete 30 credits in art history, including:

ART 311	Art History (Prehistoric through Gothic)	5
ART 312	Art History (Renaissance through 20th Century)	5
	Independent study/methods	5
	Electives in consultation with an art adviser	15

See policy on minors on page 46.

Minor in Drama/Production or Performance

In order to earn a minor in drama/production or performance, students must earn 30 credits in fine arts, including:

FA 102	Introduction to Theatre	5
DR 210	Pantomime	5
	Electives in consultation with a drama adviser	20

See policy on minors on page 46.

Minor in Music

In order to earn a minor in music, students must complete 30 credits in music, including:

MU 101	Music Basics I	3
MU 102	Music Basics II	3
MU 103	Music Basics III	3
MU 201	Music History I	3
MU 202	Music History II	3
MU 203	Music History III	3
	Music ensemble	6
	Music lessons	6

See policy on minors on page 46.

Fine Arts Courses

FA 101	Arts and Ideas	5
A humanistic approach to the creative arts: painting, sculpture, architecture. An examination of the great leaps of imagination.		
FA 102	Introduction to Theatre	5
Introduction to drama as an art form. An historical approach with emphasis on major periods, plays, and philosophies.		
FA 103	World Music	5
Introduction to music as art and literature, with emphasis upon historical and cultural correlations.		
FA 120	Experiencing the Arts	5
Aesthetics-based exploration of the arts, focused on enhancing ability to experience and make decisions about aesthetic qualities in man-made and natural objects and events in the environment. Interdisciplinary in art, music, and drama. Lectures and practical experience. Core requirement for freshmen.		
FA 191	Special Topics	1 to 5
FA 192	Special Topics	1 to 5
FA 193	Special Topics	1 to 5

Art Courses

ART 221	Drawing	2
ART 222	Drawing	2
ART 223	Drawing	2
ART 231	Design	2
Emphasis: Two Dimensions		
ART 232	Design	2
Emphasis: Color Theory		
ART 233	Design	2
Emphasis: Three Dimensions		
ART 291	Special Topics	1 to 5
ART 292	Special Topics	1 to 5
ART 293	Special Topics	1 to 5
ART 311	Art History	5
Prehistoric through Gothic art		
ART 312	Art History	5
Renaissance through 20th-Century art		

ART 313	Art History	5
World Traditions		
ART 321	Advanced Drawing	3
Study of the human form, special problems in group composition. Prerequisite: ART 221, ART 222, ART 223, or permission of instructor. Maximum nine credits.		
ART 334	Printmaking	2
Emphasis: Relief. Prerequisites: ART 221 and ART 231 or permission of instructor.		
ART 335	Printmaking	2
Emphasis: Stencil. Prerequisite: ART 334 or permission of instructor.		
ART 336	Printmaking	2
Emphasis: Planographic. Prerequisite: ART 335 or permission of instructor.		
ART 346	Painting	2
Prerequisites: ART 221 and ART 231 or permission of instructor.		
ART 347	Painting	2
Prerequisite: ART 346 or permission of instructor.		
ART 348	Painting	2
Prerequisite: ART 347 or permission of instructor.		
ART 351	Sculpture	2
Prerequisites: ART 221 and ART 233, or permission of instructor.		
ART 352	Sculpture	2
Prerequisite: ART 351 or permission of instructor.		
ART 353	Sculpture	2
Prerequisite: ART 352 or permission of instructor.		
ART 391	Special Topics	1 to 5
ART 392	Special Topics	1 to 5
ART 393	Special Topics	1 to 5
ART 434	Advanced Printmaking	3
The principles and practices of rendering in graphic media; complex composition; advanced problems. Prerequisite: ART 336 or permission of instructor.		
ART 435	Advanced Printmaking	3
Prerequisite: ART 434		
ART 436	Advanced Printmaking	3
Prerequisite: ART 435		

ART 446	Advanced Painting	3
Experimental research toward the development of a creative and personalized idiom. Synthesis and research. Prerequisite: ART 348 or permission of instructor.		
ART 447	Advanced Painting	3
Prerequisite: ART 446		
ART 448	Advanced Painting	3
Prerequisite: ART 447		
ART 451	Advanced Sculpture	3
Prerequisite: ART 353 or permission of instructor.		
ART 452	Advanced Sculpture	3
Prerequisite: ART 451		
ART 453	Advanced Sculpture	3
ART 480	Interdisciplinary Core Course	3 to 5
Title and content change each term.		
ART 491	Special Topics	1 to 5
ART 492	Special Topics	1 to 5
ART 493	Special Topics	1 to 5
ART 496	Independent Study	1 to 5
ART 497	Independent Study	1 to 5
ART 498	Independent Study	1 to 5
Prerequisite: Advanced standing in art and permission of instructor.		
ART 499	Senior Thesis and Exhibit	3
Designed for graduating art majors, a summation of a body of work accomplished during their studies, evaluation through discussion. Public exhibition of work. Compilation of a professional portfolio and resume.		

Drama Courses

DR 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.		
DR 215	Auditioning Techniques	2
The theory and practice of auditioning in various situations and how to handle them. Preparing and performing audition pieces. Offered every other year.		

- DR 220 Acting 1 5**
Acting with an emphasis on the non-verbal: body language, movement, mask work, and sensory awareness. For any level of ability. Develops techniques using mime, improvisation, and story telling. (Formerly DR 210.)
- DR 223 Acting 2 5**
Acting with an emphasis on realism and beginning scene study. For any level of ability. Develops basic stage craft and characterization. (Formerly DR 221 for three credits)
- DR 224 Acting 3 5**
Acting with an emphasis on language and scene study. Develops vocal techniques and style. Prerequisite: Acting 2 or permission of instructor. (Formerly DR 222 for three credits)
- DR 230 Video Profiles 5**
Theory and practice in the use of video before and behind the camera. Exercises in group discussions, panels, demonstrations, interviews.
- DR 264 Stage Craft 3**
Exposure to contemporary materials and techniques in the design, construction, and painting of scene art. Lab and lecture.
- DR 265 Lighting 3**
Exposure to contemporary materials, equipment, and practices in the design and execution of lighting. Lab and lecture. Offered every other year.
- DR 266 Stage Costuming 3**
Exposure to contemporary materials, procedures, and techniques in design and construction of costumes for theatre. Lab and lecture. Offered every other year.
- DR 267 Makeup 2**
Exposure to contemporary materials and techniques in the design and execution of makeup for theatre; work in specialized techniques. Lab and lecture.
- DR 280 Stage Management 2**
A comprehensive study of the role and function of the stage manager in the theatrical production process, including the preparation of prompt scripts, preproduction conferences, the rehearsal process, and running of the show. Offered every other year.
- DR 291 Special Topics 1 to 5**
DR 292 Special Topics 1 to 5
DR 293 Special Topics 1 to 5
- DR 330 Theatre History I: Classical to Elizabethan 2**
DR 331 Theatre History II: 17th to 19th Century 2
DR 332 Theatre History III: 19th and 20th Century 2
A study of historical events and ideas which formed Western theatre in all its aspects. Offered every other year.

DR 354	Representative Plays I: Classical to Elizabethan	3
DR 355	Representative Plays II: 17th to 19th Century	3
DR 356	Representative Plays III: 19th and 20th Century	3

A study of Western theatre literature, focusing on the production of the written material. Offered every other year.

DR 364	Scene Design	3
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An introduction to the art of scene design, including visual thinking, script analysis, working the production team, and presentation techniques.

DR 366	Costume History	3
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A study of fashion, costume, and garments and their relationship to the social history of civilization from the ancients to the present. Offered every other year.

DR 391	Special Topics	1 to 5
DR 392	Special Topics	1 to 5
DR 393	Special Topics	1 to 5

DR 400	Ensemble	1 to 5
DR 401	Ensemble	1 to 5
DR 402	Ensemble	1 to 5

DR 404	Playwriting	5
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Study and practice in the form and method of script construction.

DR 420	Directing	3
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Theory and practice in principles of directing various styles of drama. Offered every other year.

DR 425	Drama Internship	1 to 12
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Apprenticeship in specific area of study in the community. Drama majors only. Permission.

DR 470	Theatre Organization and Management	2
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Establishing and operating a theatre, including planning, budgeting, accounting, staffing, production selection, promotion, ticket sales, and fund raising. Offered every other year.

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

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

DR 496	Independent Study	1 to 5
DR 497	Independent Study	1 to 5
DR 498	Independent Study	1 to 5

Music Courses

This program offers an opportunity to gain insights and skills in four aspects of the field: the experience of ensemble participation, the achievement of performance skills, the knowledge of pathways in music history, and the application of creativity in composition and arranging. There is a private music lesson fee. (See Tuition and Fees). All courses which may be taken more than once are indicated with an asterisk (*) next to the credits.

MU 101 Music Basics I 3
Examination of the elements of music. The study of melody and creative writing. No prerequisites. Fall quarter only.

MU 102 Music Basics II 3
Chording and accompaniment. The study of chord types and progressions used in songs. Applicable to both popular and classical music. Winter quarter only.

MU 103 Music Basics III 3
A practical approach to arranging harmonized melodies for various vocal and instrumental ensembles. Spring quarter only.

MU 110 Piano Lessons *1 to 2
Mandatory CR/E; maximum 12 credits.

MU 111 Voice Lessons *1 to 2
Mandatory CR/E; maximum 12 credits. Prerequisite: MU 140 or permission of instructor.

MU 118 String Instrument Lessons *1 to 2
Violin, viola, cello, contrabass. Mandatory CR/E; maximum 12 credits.

MU 119 Wind Instrument Lessons *1 to 2
Flute, clarinet, saxophone, oboe, bassoon. Mandatory CR/E; maximum 12 credits.

MU 123 Guitar Lessons *1 to 2
Mandatory CR/E; maximum 12 credits.

MU 124 Brass Instrument Lessons *1 to 2
Trumpet, French horn, trombone. Mandatory CR/E; maximum 12 credits.

MU 125 Organ Lessons *1 to 2
Mandatory CR/E; maximum 12 credits.

MU 129 Percussion Lessons *1 to 2
Mandatory CR/E; maximum 12 credits.

MU 130	University Chorale	*1
	Maximum 12 credits.	
MU 131	Chamber Singers	*1
	Maximum 12 credits.	
MU 135	Instrumental Ensemble	*1
	Maximum 12 credits.	
MU 140	Beginning Voice Class	*1
MU 141	Beginning Guitar Class	*1
MU 142	Electronic Piano Class	*1
	Maximum three credits.	
MU 201	Music History I	3
MU 202	Music History II	3
MU 203	Music History III	3
	Topical studies in music history announced on a yearly basis. Quarterly topics will range from history of jazz, Amadeus, Beethoven symphonies, opera, to history of popular music.	
MU 291	Special Topics	1 to 5
MU 292	Special Topics	1 to 5
MU 293	Special Topics	1 to 5
MU 310	Piano Lessons	*1 to 2
	Mandatory CR/E, maximum 12 credits.	
MU 311	Voice Lessons	*1 to 2
	Mandatory CR/E, maximum 12 credits.	
MU 318	String Instrument Lessons	*1 to 2
	Mandatory CR/E, maximum 12 credits.	
MU 319	Wind Instrument Lessons	*1 to 2
	Mandatory CR/E, maximum 12 credits.	
MU 323	Guitar Lessons	*1 to 2
	Mandatory CR/E, maximum 12 credits.	
MU 324	Brass Instrument Lessons	*1 to 2
	Mandatory CR/E, maximum 12 credits.	
MU 325	Organ Lessons	*1 to 2
	Mandatory CR/E, maximum 12 credits.	
MU 374	World Music Cultures	5
	A socio-cultural survey and analysis of the music of Africa, the Middle East, Asia, Oceania, and Latin America.	

MU 391	Special Topics	1 to 5
MU 392	Special Topics	1 to 5
MU 393	Special Topics	1 to 5
MU 480	Interdisciplinary Core Course	3 to 5
Title and content change each term.		
MU 491	Special Topics	1 to 5
MU 492	Special Topics	1 to 5
MU 493	Special Topics	1 to 5
MU 496	Independent Study	1 to 5
MU 497	Independent Study	1 to 5
MU 498	Independent Study	1 to 5

Foreign Languages

James L. Stark, DA, Chairperson

Objectives

The foreign language programs in French, German, Italian, 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

Foreign Languages/French

Foreign Languages/German

Foreign Languages/Spanish

Minor Offered

Foreign Languages/French

Foreign Languages/German

Foreign Languages/Spanish

Teacher Education

Those students planning to become elementary or secondary foreign language teachers should major in one of the following languages: French, German, or Spanish. 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.

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.

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 some 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.

Bachelor of Arts

Major in Foreign Languages/French

In order to earn the bachelor of arts degree with a major in foreign languages/French, students must complete 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101 or 107 or above.....	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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 beginning on page 55.

II. College of Arts and Sciences Requirements

Choose one of the following two courses:

HS 121	Studies in Modern Civilization
HS 231	Survey of the United States

III. Major Requirements

Fifty-five credits in French, including:

FR 115	French Language I	5
FR 125	French Language II	5
FR 135	French Language III	5
FR 215	French Language IV	5
FR 225	French Language V	5
FR 235	French Language VI	5
FR 315	French Culture and Civilization	5
FR 325	Introduction to French Literature	5
FR	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 Foreign Languages/German

In order to earn the bachelor of arts degree with a major in foreign languages/German, students must complete 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101 or 107 or above.....	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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 beginning on page 55.

II. College of Arts and Sciences Requirements

Choose one of the following two courses:

HS 121	Studies in Modern Civilization
HS 231	Survey of the United States

III. Major Requirements

Fifty-five credits in German, including:

GR 115	German Language I	5
GR 125	German Language II	5
GR 135	German Language III	5
GR 215	German Language IV	5
GR 225	German Language V	5
GR 235	German Language VI	5
GR 315	German Culture and Civilization	5
GR 325	Introduction to German Literature	5
GR	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 Foreign Languages/Spanish

In order to earn the bachelor of arts degree with a major in foreign languages/Spanish, students must complete 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101 or 107 or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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 beginning on page 55.

II. College of Arts and Sciences Requirements

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

III. Major Requirements

Fifty-five credits in Spanish, including:

SP 115	Spanish Language I	5
SP 125	Spanish Language II	5
SP 135	Spanish Language III	5
SP 215	Spanish Language IV	5
SP 225	Spanish Language V	5
SP 235	Spanish Language VI	5
SP 315	Spanish Culture and Civilization	5
SP 325	Introduction to Spanish Literature	5
SP	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, 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	Culture and Civilization.....	5

See policy for minors on page 46.

Modern Language Courses

French Courses

FR 115	French Language I	5
FR 125	French Language II	5
FR 135	French Language III	5
FR 215	French Language IV	5
FR 225	French Language V	5
FR 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.

FR 291	Special Topics	1 to 5
FR 292	Special Topics	1 to 5
FR 293	Special Topics	1 to 5

FR 315	French Culture and Civilization	5
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An introduction to French culture and civilization with emphasis on the basic traditions and structures of French society.

FR 325	Introduction to French Literature	5
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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.

FR 391	Special Topics	1 to 5
FR 392	Special Topics	1 to 5
FR 393	Special Topics	1 to 5

FR 415	French Literature and Culture, 19th Century	5
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A study of the literary movements in 19th century French literature, based on a historical approach to representative authors and works.

- FR 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.
- FR 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.
- FR 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.
- FR 450 Methodology of Teaching French 5**
An overview of the various methods and approaches currently being used to teach French.
- FR 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.
- FR 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.
- FR 491 Special Topics 1 to 5**
FR 492 Special Topics 1 to 5
FR 493 Special Topics 1 to 5

German Courses

- GR 115 German Language I 5**
GR 125 German Language II 5
GR 135 German Language III 5
GR 215 German Language IV 5
GR 225 German Language V 5
GR 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.
- GR 291 Special Topics 1 to 5**
GR 292 Special Topics 1 to 5
GR 293 Special Topics 1 to 5

- GR 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.
- GR 325 Introduction to German Literature 5**
A general introduction to the major themes of German literature presented from a historical point of view. Reading and analysis of various representative literary genres.
- GR 391 Special Topics 1 to 5**
GR 392 Special Topics 1 to 5
GR 393 Special Topics 1 to 5
- GR 416 German Literature and Culture, 5**
Beginnings to the 18th Century
A study of the German tradition from the earliest writings up to the 18th century.
- GR 426 German Literature and Culture, 5**
18th Century
An analysis of the major works of German literature integrated with the history trends and philosophical currents of 18th century Germany.
- GR 431 German Literature and Culture, 5**
19th Century
An integrative study of the historical, philosophical, and literary diversity of the German-speaking world as it manifests itself in the major literary works of the 19th century.
- GR 436 German Literature and Culture, 5**
20th Century
A survey of 20th century German literature and culture that reflects the social, political, and intellectual trends of modern Germany.
- GR 440 German Classicism and Romanticism 5**
A study of the origins, characteristics, and major literary expressions of these two important German literary movements.
- GR 446 Literary Trends of Modern Austria 5**
and Germany
A study of the current trends in modern literature in German-speaking countries.
- GR 450 Methodology of Teaching German 5**
An overview of the various methods and approaches currently being used to teach German.

GR 452 Language Development/Modern German 5

An in-depth study of modern German with emphasis on advanced vocabulary and grammar concepts. Analysis of contemporary works that reflect the changes taking place in modern Germany.

GR 491 Special Topics 1 to 5

GR 492 Special Topics 1 to 5

GR 493 Special Topics 1 to 5

Italian Courses

The 5-credit courses offered in Italian language will fulfill the College of Arts and Sciences foreign language requirement. In addition, Italian language courses, taught by members of the Dante Alighieri Society, are offered for two and three credits in the evening hours only.

IT 115 Italian Language I 5

IT 125 Italian Language II 5

IT 135 Italian Language III 5

An intuitive approach to understanding, speaking, reading, and writing Italian.

Japanese Courses

JA 115 Japanese Language I 5

JA 125 Japanese Language II 5

JA 135 Japanese Language III 5

JA 215 Japanese Language IV 5

JA 225 Japanese Language V 5

JA 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.

JA 291 Special Topics 1 to 5

JA 292 Special Topics 1 to 5

JA 293 Special Topics 1 to 5

Spanish Courses

SP 115 Spanish Language I 5

SP 125 Spanish Language II 5

SP 135 Spanish Language III 5

SP 215 Spanish Language IV 5

SP 225 Spanish Language V 5

SP 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.

- SP 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.
- SP 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. Prerequisite: Spanish 315.
- SP 391 Special Topics 1 to 5**
SP 392 Special Topics 1 to 5
SP 393 Special Topics 1 to 5
- SP 410 Cervantes 5**
 A study of the life and works of Miguel de Cervantes with special attention to *Don Quijote de la Mancha*.
- SP 416 Latin American and Spanish Literature and Culture, 19th Century 5**
 A study of the 19th Century literary movement in Latin America and Spain. An historical approach to major works in Spanish.
- SP 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.
- SP 426 Latin American Literature and Culture, 20th Century 5**
 A study of the 20th Century Latin American literary movement; 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.
- SP 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.
- SP 491 Special Topics 1 to 5**
SP 492 Special Topics 1 to 5
SP 493 Special Topics 1 to 5

Classical Language Courses

Greek Courses

GK 101	Greek Language I	5
GK 102	Greek Language II	5
GK 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

LT 101	Latin Language I	5
LT 102	Latin Language II	5
LT 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

FL 191	Special Topics	1 to 5
FL 192	Special Topics	1 to 5
FL 193	Special Topics	1 to 5
FL 196	Independent Study	1 to 5
FL 197	Independent Study	1 to 5
FL 198	Independent Study	1 to 5
FL 291	Special Topics	1 to 5
FL 292	Special Topics	1 to 5
FL 293	Special Topics	1 to 5
FL 296	Independent Study	1 to 5
FL 297	Independent Study	1 to 5
FL 298	Independent Study	1 to 5
FL 391	Special Topics	1 to 5
FL 392	Special Topics	1 to 5
FL 393	Special Topics	1 to 5
FL 396	Independent Study	1 to 5
FL 397	Independent Study	1 to 5
FL 398	Independent Study	1 to 5
FL 491	Special Topics	1 to 5
FL 492	Special Topics	1 to 5
FL 493	Special Topics	1 to 5
FL 496	Independent Study	1 to 5
FL 497	Independent Study	1 to 5
FL 498	Independent Study	1 to 5

History

Thomas W. Taylor, PhD, Chairperson

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, 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

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).

International Studies

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

Bachelor of Arts Major in History

In order to earn the bachelor of arts degree with a major in history, students must complete 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
EN 120	Masterpieces of Literature	5
MT	101 or 107 or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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 beginning on page 55.

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:

HS 120	Introduction to Western Civilization	5
HS 121	Studies in Modern Civilization	5
HS 300	Methodology	5

Choose one of the following two courses:

HS 339	Recent United States	
HS 349	Contemporary United States since 1945	
HS 400	Historiography	5
HS	Electives (including 400-level seminar) taken in one of the following three areas: Western Europe, United States or China-Japan-Russia	25
HS	Electives	10

Minor in History

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

HS 120	Introduction to Western Civilization	5
HS 121	Studies in Modern Civilization	5

HS 300	Methodology	5
HS	Electives (approved by adviser, from one or two areas of concentration)	20

See policy for minors on page 46.

History Courses

HS 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.	
HS 191	Special Topics	1 to 5
HS 192	Special Topics	1 to 5
HS 193	Special Topics	1 to 5
HS 121	Studies in Modern Civilization	5
	The process of modernization in the West and the world.	
HS 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	
HS 291	Special Topics	1 to 5
HS 292	Special Topics	1 to 5
HS 293	Special Topics	1 to 5
HS 300	Methodology	5
	Techniques of historical research, criticism, and writing.	
HS 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.	
HS 306	Europe of the High Middle Ages	5
	An analysis of the cultural, political, and social institutions of medieval Europe.	
HS 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.	
HS 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.	

- HS 311 Europe of the 18th Century 5**
Cultural and political ferment of Western civilization in the century of the Enlightenment and the French Revolution.
- HS 313 Europe of the 19th Century 5**
The era of revolutions in ideas and societies, from the Napoleonic wars to the beginning of World War I.
- HS 315 Europe of the 20th Century 5**
Contemporary movements and institutions.
- HS 317 Peace and War in Western Civilization 5**
Examination of major concepts regarding the nature of peace and war from classical times to the present. A review of efforts to define, achieve, and ensure peace in the Western tradition, social, political, and philosophical-theological opposition to, or support for, war.
- HS 319 World Wars I and II 5**
An examination of the causes, course, and interrelationship of these two wars and their bitter legacy to the 20th century. Social, economic, and political factors are examined, as are diplomatic and military leadership.
- HS 321 Modern France 5**
Development of cultural and political France from the 17th century to the present.
- HS 323 Tudor-Stuart England, 1450-1715 5**
A study of a traditional society whose monarchs guided the nation through modernizing and reforming political and religious changes in the 16th century, only to be challenged and defeated by the aristocracy, a capitalist economy, and the House of Commons in the 17th century.
- HS 325 Modern England, 1715-Present 5**
The growth of England as a democratic industrial state with the subsequent growth of imperialism and its decline. The crisis of wars and the emergence of socialism in the 20th century.
- HS 327 Modern Germany 5**
Studies in German history and culture.
- HS 331 Colonial America 5**
European discoveries, explorations, and settlements from the 16th through the late 18th centuries.
- HS 333 The Beginnings of the United States 5**
The Revolution, Confederation, and Constitution. Continental expansion; domestic and international development to the age of Jackson.
- HS 335 Expansion and the Crisis of the Union 5**
The age of Jackson, territorial expansion, slavery and abolition, civil war, and reconstruction.

- HS 337 The United States in the Progressive Era 5**
Industrialization, immigration, urbanization, and their effects on American society and politics.
- HS 339 Recent United States 5**
The culture of the 1920s, the Great Depression, the Second World War, contemporary American society.
- HS 341 The Pacific Northwest 5**
Past development and present problems of the states comprising the Pacific Northwest, with emphasis on Washington state.
- HS 342 American Ethnic Minorities 5**
A study of the reciprocal relationships between the dominant majority in the United States and some of its ethnic minorities; the experiences of those minorities; racist and ethnocentric thought and policies in selected periods of United States history.
- HS 343 American Society and Culture 5**
Social and intellectual history of the United States, with emphasis on the 19th and 20th centuries.
- HS 347 U.S. Diplomatic History 5**
The development of the United States as a world power from the 1890s to the present, with emphasis on the history of foreign relations.
- HS 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.
- HS 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.
- HS 371 History of the Soviet Union 5**
A review of the Czarist background and analysis of the rise and fall of the Soviet Union.
- HS 381 Chinese Civilization 5**
The development of Chinese culture, thought, and institutions down to the late 19th century.
- HS 383 China-20th Century 5**
The Western impact and the Chinese revolutions from the Opium War to the People's Republic.
- HS 385 Traditional Japan 5**
The development of Japanese culture, thought, and institutions to 1867.

- HS 387 Modern Japan 5**
The transformation of Japan from feudalism to imperial power and industrial giant, 1867 to present.
- HS 391 Special Topics 1 to 5**
HS 392 Special Topics 1 to 5
HS 393 Special Topics 1 to 5
Private work by arrangement, with the approval of department chair.
- HS 400 Historiography 5**
Historical study and writing and the philosophy of history from the earliest times to the present.
- HS 412 The French Revolution and Napoleon 5**
Studies in the institutions and events which led to the fall of old France.
- HS 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.
- HS 431 The Westward Movement 5**
American frontier history from colonial times to the end of the 19th century.
- HS 434 American Revolution and Confederation 5**
Events and interpretations in the history of the Atlantic seaboard provinces from the end of the Great War for Europe through independence and Confederated United States.
- HS 435 American Civil War and Reconstruction 5**
Political, social, and economic aspects of the American Civil War and reconstruction.
- HS 480 Interdisciplinary Core Course 3 to 5**
Title and content change each term.
- HS 481 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.
- HS 491 Special Topics 1 to 5**
HS 492 Special Topics 1 to 5
HS 493 Special Topics 1 to 5
- HS 496 Independent Study 1 to 5**
HS 497 Independent Study 1 to 5
HS 498 Independent Study 1 to 5

Honors Program

Hamida Bosmajian, 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 HON 101 through HON 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 HON 398 or HON 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

HON 101	Humanities Seminar - Thought	5
HON 102	Humanities Seminar - Thought	4
HON 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.

HON 111	Humanities Seminar - Literature	4
HON 112	Humanities Seminar - Literature	4
HON 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.

HON 121	Humanities Seminar - History	4
HON 122	Humanities Seminar - History	4
HON 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.

HON 131	Humanities Seminar - Modes of Inquiry and Knowing	3
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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.

HON 142	Humanities Seminar - Art	2
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Synoptic view of art history; period and national styles; principles and implication of design.

HON 191	Interdisciplinary Seminar	1 to 10
HON 192	Interdisciplinary Seminar	1 to 10

HON 201	Humanities Seminar - Thought	4
HON 202	Humanities Seminar - Thought	4
HON 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.

- HON 211 Humanities Seminar - Literature 4**
HON 212 Humanities Seminar - Literature 4
HON 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.

- HON 221 Humanities Seminar - History 4**
HON 222 Humanities Seminar - History 4

The study of historical eras, issues, and documents from the Renaissance to modern times.

- HON 231 Humanities Seminar - Science 3**
HON 232 Humanities Seminar - Science 4

A study of some contemporary problems in the physical and biological sciences. HON 232 includes three lectures and three laboratory hours per week.

- HON 243 Humanities Seminar - Music 2**

Twentieth century music with emphasis upon historical and cultural correlations.

- HON 251 Humanities Seminar - Social Science 4**

An introduction to political science or sociology through an examination of influential thinkers in either field.

- HON 291 Special Topics 1 to 5**
HON 292 Special Topics 1 to 5
HON 293 Special Topics 1 to 5

- HON 398 Independent Study 1 to 5**

Private work by arrangement. Prerequisite: approval of program director.

- HON 480 Interdisciplinary Core Courses 3 to 5**

Title and content change each term.

- HON 499 Humanities Senior Seminar 5**

Reading and discussion of major synthetic literature in the humanities on selected topics. Prerequisite: approval of instructor.

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

ISS 120 Social Science Inquiry

5

Major issues of contemporary American life are explored with the resources of economics, political science, and sociology. Poverty, racism, and sexism are frequent themes. Includes service learning. Correlates with PL 220.

International Studies

Victor Reinking, PhD, 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 and must be earned in courses taught in the local vernacular. See university-sponsored programs under the foreign language department. Additional overseas courses are occasionally offered by the English and Philosophy departments 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 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101 or 107 or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 220	Philosophy of the Human Person	5
Social Science I (not economics or political science)	.....	5
Social Science II (EC 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 beginning on page 55.

II. College of Arts and Sciences Requirements

Foreign Language 115, 125, 135, or equivalent	15
HS 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 HS 231 as a substitute for HS 121.

III. Major Requirements

Sixty-five credits in international studies, including:

EC 330 International Economic Events	5
EC 374 Intermediate Microeconomics	5
Business/Economics International Electives	15
(Choose from EC 376, 379, 386, 472, 473, FIN 446, MGMT 320, or MKTG 456)	
Foreign Language above 135	15
HS Elective (non-U.S.)	10
(Choose from HS 313, 315, 317, 319, 321, 325, 327, 347, 371, 381, 383, 387, 481)	
PLS 260 Introduction to Global Politics	5
PLS Upper Division Elective (Int'l or Comparative)	5
Approved Elective*	5

IV. Other Program Requirements

EC 272 Microeconomics 5
 MT 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.

**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 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

EN 110 Freshman English 5
 PL 110 Introduction to Philosophy and Critical Thinking 5
 HS 120 Introduction to Western Civilization 5
 EN 120 Masterpieces of Literature 5
 MT 101 or 107 or above 5
 Lab Science 5
 FA 120 Experiencing the Arts 5
 PL 220 Philosophy of the Human Person 5
 Social Science I (not economics or political science) 5
 Social Science II (EC 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 beginning on page 55.

II. College of Arts and Sciences Requirements

Foreign Language 115, 125, 135, or equivalent 15
 HS 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 HS 231 as a substitute for HS 121.

III. Major Requirements

Sixty-five credits in international studies, including:

Foreign Language above 135.....	15
HS Elective (non-U.S.)	20
(Choose from HS 313, 315, 317, 319, 321, 325, 327, 347, 371, 381, 383, 387, 481)	
PLS 231 Diversity and Change	5
PLS 260 Introduction to Global Politics	5
PLS Upper Division Elective (Int'l or Comparative)	10
Approved Elective*	5

Choose one of the following six courses:

EC 330	International Economic Events	5
EC 376	Economic Development	
EC 379	Comparative Economic Systems	
EC 386	International Business Enterprises	
EC 472	International Trade	
EC 473	International Macroeconomics and Finance	

IV. Other Program Requirements

EC 272	Microeconomics	5
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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 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5

MT	101 or 107 or above	5
Lab Science		5
FA 120	Experiencing the Arts	5
PL 220	Philosophy of the Human Person	5
Social Science I	(not economics or political science)	5
Social Science II	(EC 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 beginning on page 55.

II. College of Arts and Sciences Requirements

Foreign Language	115, 125, 135, or equivalent	15
HS 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 HS 231 as a substitute for HS 121.

III. Major Requirements

Sixty-five credits in international studies, including:

Foreign Language	above 135	25
HS	Elective (non-U.S.)	10
	(Choose from HS 313, 315, 317, 319, 321, 325, 327, 347, 371, 381, 383, 387, 481)	
PLS 231	Diversity and Change	5
PLS 260	Introduction to Global Politics	5
PLS	Upper Division Elective (Int'l or Comparative)	10
Approved Elective*		5

Choose one of the following six courses: 5

EC 330	International Economic Events
EC 376	Economic Development
EC 379	Comparative Economic Systems
EC 386	International Business Enterprises
EC 472	International Trade
EC 473	International Macroeconomics and Finance

IV. Other Program Requirements

EC 272	Microeconomics.....	5
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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 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

EN 110	Freshman English.....	5
PL 110	Introduction to Philosophy and Critical Thinking.....	5
HS 120	Introduction to Western Civilization.....	5
EN 120	Masterpieces of Literature.....	5
MT	101 or 107 or above.....	5
Lab Science	.....	5
FA 120	Experiencing the Arts.....	5
PL 220	Philosophy of the Human Person.....	5
	Social Science I (not economics or political science).....	5
	Social Science II (EC 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 beginning on page 55.

II. College of Arts and Sciences Requirements

Foreign Language 115, 125, 135, or equivalent.....	15	
HS 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 HS 231 as a substitute for HS 121.

III. Major Requirements

Sixty-five credits in international studies, including:

Foreign Language above 135	15
HS Elective (non-U.S.)	10
(Choose from HS 313, 315, 317, 319, 321, 325, 327, 347, 371, 381, 383, 387, 481)	
PLS 231 Diversity and Change	5
PLS 260 Introduction to Global Politics	5
PLS Upper Division Electives (Int'l or Comparative)	20
Approved Elective*	5

Choose one of the following six courses:

EC 330	International Economic Events	5
EC 376	Economic Development	
EC 379	Comparative Economic Systems	
EC 386	International Business Enterprises	
EC 472	International Trade	
EC 473	International Macroeconomics and Finance	

IV. Other Program Requirements

EC 272	Microeconomics	5
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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:

EC	Elective	5
(Choose from EC 376, 379, 386, 472, 473)		
HS	Elective (non-U.S.)	10
(Choose from HS 313, 315, 317, 319, 321, 325, 327, 347, 371, 381, 383, 387, 481)		
PLS	Electives (dealing with international and foreign systems, 300-400 level)	10
Approved International Elective		
		5

Please Note: EC 271 and 272 are prerequisites to upper division economics courses. See policy for minors on page 46.

Liberal Studies Program

Betsy 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 for this major. 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 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101, 107, or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5

PL 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 LS 490)

See detailed core curriculum information beginning on page 55.

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

- HS 121 Studies in Modern Civilization
- HS 231 Survey of the United States

III. Major Requirements

Sixty credits in liberal studies, including:

Humanities

English, foreign language, history, philosophy, religious studies, and fine arts (300-400 level, including five credits in English composition/writing) 20

Social Sciences

Economics, political science, psychology, sociology, communications, public administration, criminal justice, and a limited number of addiction studies courses (300-400 level) 15

Science Electives 10

Math, Statistics, or Computer Science Elective 5

Speech 5

Choose one of the following two courses:

- LS 490 Senior Synthesis / Project 5
- Approved Seminar

Please Note: 40 credits must be taken at 300-400 level; 25 of these must be taken at Seattle University.

Liberal Studies Course

LS 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 texts, 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

HON 103	HON Sem: Thought (Medieval Philosophy)	5
HON 113	HON Sem: Literature (Dante and Chaucer)	4
HON 122	HON Sem: History (Early Medieval)	4
HON 123	HON Sem: History (High Medieval)	4

English (Literature)

EN 326	Dante's <i>Divine Comedy</i>	5
EN 328	Chaucer	5
EN 491-93*	Special Topics in Medieval Literature	1 to 5

Fine Arts

ART 392	Medieval Art	3
DR 391	Medieval Drama	2

History

HS 491-93*	Special Topics in Medieval History	1 to 5
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Language (Latin)

LT 102	Latin Language II (Prereq: Latin I)	5
LT 103	Latin Language III	5
FL 291-93*	Special Topics in Latin Language	1 to 5
FL 391-93*	Special Topics in Latin Language	1 to 5

Medieval Studies

MDVL 491-93*	Special Topics: Medieval Studies	1 to 5
MDVL 496-98*	Independent Study: Medieval Studies	1 to 5

Philosophy

PL 491-93*	Special Topics: Medieval Philosophy	1 to 5
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Religious Studies

RS 491-93	Special Topics: Medieval Theology	5
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Approved courses for students not enrolled in the Honors Program

English (Literature)

EN 326	Dante's <i>Divine Comedy</i>	5
EN 328	Chaucer	5
EN 393	Medieval Literature	5
EN 491-93*	Special Topics in Medieval Literature	1 to 5

Fine Arts

ART 392	Special Topics: Medieval Art	3
DR 351	Medieval Drama	2

History

HS 303	Foundations Eur. Civ.: Early Medieval History	5
HS 306	Europe of the High Middle Ages.....	5
HS 491-93*	Special Topics in Medieval History.....	1 to 5

Language (Latin)

LT 102	Latin Language II (Prereq: Latin I)	5
LT 103	Latin Language III	5
FL 291-93*	Special Topics in Latin Language	1 to 5
FL 391-93*	Special Topics in Latin Language	1 to 5

Medieval Studies

MDVL 491-93*	Special Topics: Medieval Studies	1 to 5
MDVL 496-98*	Independent Study: Medieval Studies	1 to 5

Philosophy

PL 442	Medieval Synthesis (Augustine/Aquinas)	5
PL 491-93*	Special Topics: Medieval Philosophy.....	1 to 5

Religious Studies

RS 491-93	Special Topics: Medieval Theology	5
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*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., PL 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. LT 101 may not be applied to the minor. LT 102, LT 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 MDVL prefix, that is, special topics courses (MDVL 491-MDVL 493) and independent study courses (MDVL 496-MDVL 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: PL 442 (similar to HON 103), Medieval Literature (similar to HON 113), HS 303 (similar to HON 122), or HS 306 (similar to HON 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.

Courses Specific to the Medieval Studies Minor

MDVL 491	Special Topics	1 to 5
MDVL 492	Special Topics	1 to 5
MDVL 493	Special Topics	1 to 5
MDVL 496	Independent Study	1 to 5
MDVL 497	Independent Study	1 to 5
MDVL 498	Independent Study	1 to 5

Military Science

LTC Thomas L. Madigan, Chairperson

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.

Basic Course

Freshman year

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

Sophomore year

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

Advanced Course

Junior year

MS 311, 312, and 313	9
MS 314 or 315 (Advanced Camp)	4
PME: HS 313, 315, 317, 319, 339, 347, PLS 260, or PLS 365	5

Senior year

MS 412, 413, and 493	11
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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.

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 (MS).

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.

Military Science Basic Courses

- MS 111 Basic Officership I 2**
An introduction to the officership environment, military science, key legislation, roles of active and reserve component units, and special programs associated with ROTC. Includes three leadership labs and one field training exercise.
- MS 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 three leadership labs and one field training exercise.
- MS 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 three leadership labs and one field training exercise.
- MS 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 three leadership labs and one field training exercise.
- MS 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 three leadership labs and one field training exercise.
- MS 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.
- MS 218 Map Reading 2**
An introduction to military map reading. Includes discussion of coordinates, azimuths, conversion, intersection/resection, interpretation of symbols, and relief. Includes three leadership labs and one field training exercise.
- MS 291 Special Topics 1 to 5**
MS 292 Special Topics 1 to 5
MS 293 Special Topics 1 to 5
- MS 296 Independent Study 1 to 5**

Military Science Advanced Courses

MS 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.

MS 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.

MS 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.

MS 314 Advanced Camp 4

Successful completion is a prerequisite to commissioning. During six weeks at Ft. Lewis, students are placed in a variety of roles and situations and practice their leadership and management competencies in the broader context of officership. Prerequisite: MS 311, 312, and 313. (summer)

MS 315 Advanced Camp-Nursing 4

Successful completion is a prerequisite to commissioning. During six weeks at various Army medical centers, nursing students are placed in a variety of roles as an Army nurse to develop their professional competencies—both as a nurse and as an officer. Prerequisites: MS 311, 312, and 313. (summer)

MS 391 Special Topics 1 to 5

MS 392 Special Topics 1 to 5

MS 393 Special Topics 1 to 5

MS 396 Independent Study 1 to 5

MS 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.

MS 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.

MS 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. Includes three leadership labs and one field training exercise.

MS 491 Special Topics 1 to 5

MS 492 Special Topics 1 to 5

MS 493 Special Topics 1 to 5

MS 496 Independent Study 1 to 5

Aerospace Studies (Air Force ROTC)

Col. James C. Evans, Department Chairman, 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 (DU-30), Seattle, WA 98195-0001.

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 (DU-30), Seattle, WA 98195-0001 or call (206) 543-2360, or e-mail to coc@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 graduate students and other 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

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 branches 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

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. A one-hour leadership laboratory is also required.

Naval Science (Navy ROTC)

Capt. James W. Orvis, PNS, Chairperson

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. All 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 ensigns in the United States Navy, or as second lieutenants 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 tuition, books, and academic fees, as well as a \$100 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 three years. Additional information concerning the NROTC programs may be obtained by writing the Professor of Naval Science; 317 Clark Hall, University of Washington Box 353840; Seattle, WA 98195-38480; or by visiting the NROTC unit on campus.

Naval Science Courses

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

- 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, Chairperson

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 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

EN 110	Freshman English	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101 or 107 or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	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 beginning on page 55.

II. College of Arts and Sciences Requirements

Foreign Language 115, 125, 135, or equivalent	15
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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
HS 121 Studies in Modern Civilization	
HS 231 Survey of the United States	

III. Major Requirements

Fifty-five credits in philosophy, including:

A. Foundations

PL 110 Introduction to Philosophy and Critical Thinking	5
PL 220 Philosophy of the Human Person	5
PL 260 Logic	5

B. Ethics

PL 345 Ethics	5
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C. History and Traditions

PL 370 Introduction to Modern Philosophy	5
PL 441 The Greek Experience: Plato/Aristotle	5
PL 442 The Medieval Synthesis: Augustine/Aquinas	5
PL 449 Major Figures in the Traditions	5

D. Topics and Controversies

PL Approved Electives (300-400 level)	15
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Please note: Students who matriculate with 90 or more credits in transfer and no core philosophy will substitute PL 210 for PL 110 and PL 220. Approved electives will then number 20 credits rather than 15.

Policy for Honors Students

Honors Program students who have successfully completed the HON courses listed below are exempted from PL 220 and ethics, but need an additional 30 credits to complete the major: PL 260 or 261, 441, 449 and 15 credits of approved electives. They are credited with the following equivalents:

- HON 101 = PL 110
- HON 102/3 = PL 442
- HON 201 = PL 370
- HON 202 = PL 371
- HON 203 = PL 372

Minor in Philosophy

In order to earn a minor in philosophy, students must complete 30 credits in philosophy, including:

- PL 110 Introduction to Philosophy and Critical Thinking 5
- PL 220 Philosophy of the Human Person 5
- PL 345 Ethics (or other approved upper-division ethics) 5
- PL Electives 15

Please Note: 1. Students who wish to pursue a special track in the philosophy minor must earn at least 10 of the 15 elective credits from courses designed to complement students' major fields. 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 page 46.

Philosophy Courses

PL 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: EN 110.

PL 210 Philosophy of the Human Person (Bridge) 5

This course is a modification of PL 220 for transfer students for whom PL 110 has been waived and who have had no previous introductory philosophy course. It introduces students to the nature of philosophical inquiry and includes the issues contained in PL 220.

PL 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: PL 110.

PL 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.

PL 300 Nature and Cosmos 5

Philosophical appraisal of contemporary cosmological theory. Possible topics include the Big Bang and before; cosmic expansion and the ultimate

- PL 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: PL 210 or 220.
- PL 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: PL 210 or 220.
- PL 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: PL 210 or 220.
- PL 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: PL 210 or 220.
- PL 351 Business Ethics 5**
 Application of general ethical theory to those problems directly related to the business world. Prerequisites: PL 210 or 220; EC 271.
- PL 352 Health Care Ethics 5**
 Application of general ethical theory to basic problems encountered in the medical profession; fees, professional secrecy, rights of patients, abortion, transplants, drugs. Prerequisite: PL 210 or 220.
- PL 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: PL 210 or 220.
- PL 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: PL 210 or 220.
- PL 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: PL 210 or 220, and at least one of the following: COM 201, 210, or 260.

PL 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: PL 210 or 220.

PL 360 Analytic Philosophy 5

Readings from source material of 20th century analytic philosophers. Investigation of contemporary schools of logical positivism and linguistic analysis from Russell to Wittgenstein. Prerequisite: PL 210 or 220.

PL 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: PL 210 or 220.

PL 362 Existentialism 5

The themes of anxiety, despair, guilt, and freedom in the writings of Kierkegaard, Nietzsche, Sartre, Camus, Jaspers, and others. Prerequisite: PL 210 or 220.

PL 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: PL 210 or 220.

PL 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: PL 210 or 220.

PL 366 Process Philosophy 5

Critical reflection on the philosophies of such thinkers as Bergson, Pierce, Whitehead, and Hartshorne. Prerequisite: PL 210 or 220.

PL 367 Gender and Social Reality 5

A study of the influence of feminist thinking on metaphysics, epistemology, ethics, and the methodology of philosophy. Prerequisite: PL 210 or 220.

PL 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: PL 210 or 220.

- PL 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: PL 210 or 220.
- PL 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.
- PL 391 Special Topics 1 to 5**
PL 392 Special Topics 1 to 5
PL 393 Special Topics 1 to 5
- PL 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: PL 210 or 220.
- PL 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: PL 210 or 220.
- PL 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. Previously PL 303. Prerequisite: PL 210 or 220
- PL 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: PL 210 or 220.
- PL 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: PL 345, 352, or 439.
- PL 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: PL 210 or 220.
- PL 442 The Medieval Synthesis: Augustine/Aquinas 5**
 A seminar study of the Christian philosophies of St. Augustine and St. Thomas Aquinas. Prerequisite: PL 210 or 220.

- PL 443 German Idealism 5**
Seminar study of major 18th and 19th century figures as Kant, Fichte, Schelling, and Hegel. Prerequisite: PL 210 or 220.
- PL 449 Major Figures in the Traditions 5**
Intensive, seminar examination of the work of a major philosopher. Prerequisite: PL 210 or 220.
- PL 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 PL 261.)
- PL 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 PL 341. Prerequisite: PL 210 or 220.
- PL 480 Interdisciplinary Core Course 3 to 5**
Title and content may change each term. Prerequisite: PL 210 or 220.
- PL 490 Senior Synthesis 3 to 5**
- PL 491 Special Topics 1 to 5**
PL 492 Special Topics 1 to 5
PL 493 Special Topics 1 to 5
- PL 497 Independent Study 1 to 5**
PL 498 Independent Study 1 to 5
- PL 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

Constance G. Anthony, PhD, Chairperson

James B. Hogan, PhD, BPA Coordinator

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 studies).

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 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101 or 107 or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 220	Philosophy of the Human Person	5
Social Science I	(not economics or political science)	5
Social Science II	(EC 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 PLS course	

See detailed core curriculum information beginning on page 55.

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
HS 121	Studies in Modern Civilization
HS 231	Survey of the United States

III. Major Requirements

Sixty credits in political science, including:

PLS 205	Introduction to American Politics	5
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PLS 231	Diversity and Change	5
PLS 253	Introduction to Political Theory	5
PLS 260	Introduction to Global Politics	5
	Administration and Law (PLS 280, 321, 322, 378, 379, 485)	5
	American Politics (PLS 300, 301, 302, 303, 304, 305, 306, 307, 309, 410)	5
	Comparative Politics (PLS 330, 331, 332, 333, 338, 367, 432)	5
	International Politics (PLS 362, 367, 461)	5
	Political Theory (PLS 352, 355, 356, 459)	5
PLS	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 PLS 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:

PLS 205	Introduction to American Politics	5
PLS 231	Diversity and Change	5
PLS 253	Introduction to Political Theory	5
PLS 260	Introduction to Global Politics	5
PLS	Electives	15

See policies for minors on page 46.

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 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101 or 107 or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 220	Philosophy of the Human Person	5
Social Science I	(not economics or political science)	5
Social Science II	(EC 271)	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 PLS 485	

See detailed core curriculum information beginning on page 55.

II. College of Arts and Sciences Requirements

Foreign Language 115, 125, 135, or equivalent

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
HS 121	Studies in Modern Civilization
HS 231	Survey of the United States

II. Major Requirements

Fifty-five credits, including:

PLS 205	Introduction to American Politics	5
PLS 280	Principles of Public Administration	5
PLS 305	The Policy Process	5
PLS 309	Local and State Politics	5
PLS 378	Planning, Budgeting, and Information Systems	5
PLS 379	Public Sector Analysis	5
PLS 382	Research Methods	5
PLS 485	Leadership in the Public Sector (Senior Synthesis)	5
PLS 488	Internship	5

Choose one of the following two courses:	5
MGMT 380	Principles of Management
COM 383	Organizational Communication

Additional Requirements:

- CSC 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:

- PLS 280 Principles of Public Administration 5
 PLS 378 Planning, Budgeting, and Information Systems 5
 PLS 379 Public Sector Analysis 5
 PLS 382 Research Methods 5
 PLS 485 Leadership in the Public Sector 5

Choose one of the following two courses: 5

- MGMT 380 Principles of Management
 COM 383 Organizational Communication

Prerequisite for minor: 5

- CSC 103 Introduction to Computers and Applications, or equivalent required.

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

PLS 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?

PLS 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.

PLS 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.

- PLS 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.
- PLS 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 EC, interventionism, and the new world order.
- PLS 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
- PLS 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
- PLS 301 The American Presidency 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. A
- PLS 302 Politics of 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. Core interdisciplinary option. (formerly Government and the Economy) A
- PLS 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
- PLS 304 Interests, Parties, and Elections 5**
Popular participation, group influence, party organization, and electoral choice in the American political system. A
- PLS 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

- PLS 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
- PLS 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
- PLS 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
- PLS 321 Constitutional Law 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
- PLS 322 The Supreme Court and the Bill of Rights 5**
Interpretation of the Bill of Rights by the Supreme Court and the impact on the individual and the states. (formerly PLS 406) AL
- PLS 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
- PLS 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
- PLS 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
- PLS 333 Politics of Canada 2**
Canada as a North American alternative in political culture and social welfare. Federalism, provincial powers, and Quebec separatism. Elite rule and democratic accountability. United States impacts on our largest trading partner. C

- PLS 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 Soviet influence, and revolution in South Africa. C
- PLS 352 Modern Political Thought 5**
Foundations of modern Western political thought, from the Renaissance to the French Revolution. T
- PLS 355 Contemporary Political Thought 5**
Issues in modern and postmodern thought. Marxism and critical theory, Freud and modern identity, hermeneutics, poststructuralism, and feminism. T
- PLS 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
- PLS 362 International Organization 5**
How states cooperate to form treaties, institutions, and informal agreements. The United Nations and its specialized agencies, GATT, IMF, the World Bank, UNEP, and the Law of the Sea. Theories of institutionalization, integration, regimes, and interdependence. I
- PLS 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
- PLS 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
- PLS 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
- PLS 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)
- PLS 391 Special Topics 1 to 5**
- PLS 392 Special Topics 1 to 5**
- PLS 393 Special Topics 1 to 5**

PLS 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

PLS 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

PLS 456 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.

PLS 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

PLS 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

PLS 480 Interdisciplinary Core Course 3 to 5
 Title and content may change each term.

PLS 485 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) AL

PLS 488 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/E.

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

PLS 496 Independent Study 1 to 5
PLS 497 Independent Study 1 to 5
PLS 498 Independent Study 1 to 5

Prelaw

David W. Arnesen, JD, Adviser

Eric 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 prelaw adviser.

Pre-Graduate School 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 eligibility requirements, contact the director.

Premajor Program

Betsy 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, Chairperson

Objectives

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 personnel; or for those who desire a well-rounded education and thus need a basic knowledge and understanding of human experience and behavior. 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.

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 2.5 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, PSY 120, 301, 303, 304, 305, 306, and 499 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 ADD 400 and ADD 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 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101 or 107 or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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

See detailed core curriculum information beginning on page 55.

II. College of Arts and Sciences Requirements

Foreign Language 115, 125, 135, or equivalent

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
- HS 121 Studies in Modern Civilization
 - HS 231 Survey of the United States

III. Major Requirements

Fifty credits in psychology, including:

- PSY 120 Introductory Psychology* 5
- PSY 301 History and Schools of Psychology* 5
- PSY 303 Statistics and Research Methods* 4
- PSY 304 Lab for Statistics and Research Methods* 1
- PSY 305 Statistics and Research Methods: Applied* 4
- PSY 306 Lab for Statistics and Research Methods: Applied* 1
- PSY 499 Senior Seminar* 5
- PSY Electives 25

Please Note: 1. *Must be graded C (2.0), or better. 2. No more than 10 credits of independent study are permitted.

**Bachelor of Arts
Major in Psychology
Addiction Studies Specialty**

In order to earn the bachelor of arts degree with a major in psychology/addiction studies specialty, students must complete 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

- EN 110 Freshman English 5
- PL 110 Introduction to Philosophy and Critical Thinking 5
- HS 120 Introduction to Western Civilization 5
- EN 120 Masterpieces of Literature 5
- MT 101 or 107 or above 5
- Lab Science 5
- FA 120 Experiencing the Arts 5
- PL 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 Course (ADD 480/PSY 490 allowed) 3 to 5

See detailed core curriculum information beginning on page 55.

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
 HS 121 Studies in Modern Civilization
 HS 231 Survey of the United States

III. Major Requirements

Fifty credits in psychology, including:

PSY 120	Introductory Psychology*	5
PSY 301	History and Schools of Psychology*	5
PSY 303	Statistics and Research Methods*	4
PSY 304	Lab for Statistics and Research Methods*	1
PSY 305	Statistics and Research Methods: Applied*	4
PSY 306	Lab for Statistics and Research Methods: Applied*	1
ADD 402	Counseling-Alcohol and Drugs*	3
PSY 499	Senior Seminar*	5
PSY	Electives	18

Choose one of the following two courses: 3
 PSY 490 Introduction to Alcohol and Drug Addiction
 ADD 480 Introduction to Alcohol and Drug Addiction

IV. Other Program Requirements

ADD 405	Addiction: Law and Public Policy	2
ADD 407	Field Experience	3
ADD 412	Group Process in Treatment	3
ADD 414	Case Management and Record Keeping	3
ADD 418	Addiction and the Family	3
ADD 428	Ethics for Addiction Professionals	3
ADD 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.

Bachelor of Science Major in Psychology

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

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101 or 107 or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 220	Philosophy of the Human Person	5
Social Science I (not major discipline)	.....	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

See detailed core curriculum information beginning on page 55.

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
HS 121	Studies in Modern Civilization	
HS 231	Survey of the United States	

III. Major Requirements

Fifty credits in psychology, including:

PSY 120	Introductory Psychology*	5
PSY 301	History and Schools of Psychology*	5
PSY 303	Statistics and Research Methods*	4
PSY 304	Lab for Statistics and Research Methods*	1
PSY 305	Statistics and Research Methods: Applied*	4
PSY 306	Lab for Statistics and Research Methods: Applied*	1
PSY 499	Senior Seminar*	5
PSY	Electives	10

Choose one of the following two courses:	.....	5
PSY 330	Physiological Psychology*	
PSY 316	Health Psychology*	

PSY 291	Special Topics	1 to 5
PSY 292	Special Topics	1 to 5
PSY 293	Special Topics	1 to 5

PSY 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: PSY 120. (fall)

PSY 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. Corequisite: PSY 304 (fall, winter)

PSY 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: PSY 303 (fall, winter)

PSY 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: PSY 303 and 304. Corequisite: PSY 306 (winter, spring)

PSY 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: PSY 303, PSY 304. Corequisite: PSY 305 (winter and spring).

PSY 315 Abnormal Psychology 5

Survey of abnormal mental and emotional life; symptoms, nature, and causes of psychological disorders; abnormalities of specific functions; theories of etiology. Prerequisite: PSY 120. (fall, winter, spring)

PSY 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: PSY 120 (fall, odd-numbered years)

- PSY 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: PSY 120 or equivalent. (fall, winter, spring)
- PSY 330 Physiological Psychology 5**
Biological basis of behavior, cerebrospinal, autonomic and sensory systems; endocrine glands, relation of the brain to behavior. Prerequisites: PSY 120. (fall, even-numbered years)
- PSY 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: PSY 120. (winter; odd-numbered years)
- PSY 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 PSY 120 or equivalent. (fall)
- PSY 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: PSY 120. (winter)
- PSY 391 Special Topics 1 to 5**
PSY 392 Special Topics 1 to 5
PSY 393 Special Topics 1 to 5
- PSY 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: PSY 303, PSY 304, PSY 305, and PSY 306. (spring, even-numbered years)
- PSY 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: PSY 120. (winter, odd-numbered years)

Sociology

Charles Lawrence, PhD, Chairperson

Objectives

As the basic social science, sociology raises the question: Why do people do what they do? Sociology offers an in-depth understanding of behavior in human groups ranging from families and small groups to communities and organizations to whole societies, cultures, and civilizations.

Sociology studies the ecological foundations of society, major institutions and the social structure, the formation of self and personal identity, and symbolic systems in their cross-cultural and historical dimensions. Theory and research are integrated, enabling students to comprehend the main patterns and trends of past, present, and future.

A sociology major or minor helps students prepare for careers in any field in which working with people is paramount, and for graduate study or law school. Particular emphasis is placed on the practical applications of sociological knowledge in the fields of social work, family-life studies, and social research. Internships match theory with practice by providing opportunities for on-the-job training in selected sites.

Degree Offered

Bachelor of Arts

Majors Offered

Sociology

Sociology/Applied Social Research Track

Sociology/Family Life Studies Track

Sociology/Social Work Track

Minor Offered

Sociology

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, including applied tracks, students must complete 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101 or 107 or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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 beginning on page 55.

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

- | | |
|--------|--------------------------------|
| HS 121 | Studies in Modern Civilization |
| HS 231 | Survey of the United States |

III. Major Requirements

Sixty credits in sociology, including:

SC 120 Introductory Sociology 5

Area I—Human Ecology

Choose one from the following five courses: 5

SC 202 Human Ecology and Geography

SC 303 Sociology of Community

SC 306 Population Dynamics

SC 404 Technology and Society

SC 408 The Urban Revolution

Area II—Institutions and Social Structure

Choose two from the following five courses: 10

SC 210 American Society and Culture

SC 215 Family and Kinship

SC 316 Inequality and Stratification

SC 319 Deviance and Social Control

SC 414 Social Movements

Area III—Self and Society

Choose one from the following four courses: 5

SC 222 Social Psychology

SC 321 Socialization through the Life Cycle

SC 323 Culture and Personality

SC 424 Sociology of Mental Illness

Area IV—Cultural Systems

Choose one from the following four courses: 5

SC 230 Cultural Anthropology

SC 330 Sociology/Anthropology of Religion

SC 333 Sociology/Anthropology of Law

SC 438 Anthropology of Pacific Northwest Peoples

Area V—Theory and Method

Choose one of the following two courses: 5

SC 340 Classical Sociological Theory

SC 442 Contemporary Sociological Theory

Choose one of the following three courses: 5

SC 346 Social Statistics

SC 348 Quantitative Research Methods

SC 444 Qualitative Social Research

SC Electives (selected in consultation with adviser) 20

Please Note: 1. A minimum of 30 upper-division credits will be required for graduation. 2. Transfer students must complete a minimum of 25 credits in sociology at Seattle University.

Bachelor of Arts Major in Sociology Applied Social Research Track

In order to earn the bachelor of arts degree with a major in sociology/applied social research track, students must complete 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101 or 107 or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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 beginning on page 55.

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:

HS 121	Studies in Modern Civilization	5
HS 231	Survey of the United States	

III. Major Requirements

Sixty-five credits in sociology, including:

SC 120	Introductory Sociology	5
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Areas I, II, III, and IV

Choose one course in each area: 20
 (See Major Requirements, page 180)

Area V

Choose one of the following two courses: 5

SC 340 Classical Sociological Theory
 SC 442 Contemporary Sociological Theory

SC 346 Social Statistics 5

SC 348 Quantitative Research Methods 5

SC 444 Qualitative Social Research 5

SC 482 Evaluation Research 5

SC 488 Internship 5

SC Electives (selected in consultation with adviser) 10

Please Note: 1. A minimum of 30 upper-division credits will be required for graduation. 2. Transfer students must complete a minimum of 25 credits in sociology at Seattle University.

Bachelor of Arts Major in Sociology Family Life Studies Track

In order to earn the bachelor of arts degree with a major in sociology/family life studies track, students must complete 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

EN 110 Freshman English 5

PL 110 Introduction to Philosophy and Critical Thinking 5

HS 120 Introduction to Western Civilization 5

EN 120 Masterpieces of Literature 5

MT 101 or 107 or above 5

Lab Science 5

FA 120 Experiencing the Arts 5

PL 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 beginning on page 55.

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
 HS 121 Studies in Modern Civilization
 HS 231 Survey of the United States

III. Major Requirements

Sixty-five sociology credits, including:
 SC 120 Introductory Sociology 5

Areas I, II, III, and IV

Choose one course in each area: 20
 (See Major Requirements, page 180)

Area V

Choose one of the following two courses: 5
 SC 340 Classical Sociological Theory
 SC 442 Contemporary Sociological Theory

Choose one of the following three courses: 5
 SC 346 Social Statistics
 SC 348 Quantitative Research Methods
 SC 444 Qualitative Social Research

SC 210 American Society and Culture 5
 SC 215 Family and Kinship 5
 SC 321 Socialization Through the Life Cycles 5
 SC 368 Social Work with Families 5
 SC 488 Internship 5
 SC Elective (selected in consultation with adviser) 5

Please Note: 1. A minimum of 30 upper-division credits will be required for graduation. 2. Transfer students must complete a minimum of 25 credits in sociology at Seattle University.

Bachelor of Arts Major in Sociology Social Work Track

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

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101 or 107 or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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 beginning on page 55.

II. College of Arts and Sciences Requirements

Foreign Language 115, 125, 135, or equivalent

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:

HS 121	Studies in Modern Civilization	5
HS 231	Survey of the United States	

III. Major Requirements

Sixty-five credits in sociology, including:

SC 120	Introductory Sociology	5
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Areas I, II, III, and IV

Choose one course in each area 20
 (See Major Requirements, page 180)

Area V

Choose one from the following two courses: 5

- SC 340 Classical Sociological Theory
 SC 442 Contemporary Sociological Theory

Choose one from the following three courses: 5

- SC 346 Social Statistics
 SC 348 Quantitative Research Methods
 SC 444 Qualitative Social Research

- SC 250 Introduction to Social Work 5
 SC 321 Socialization Through the Life Cycle 5
 SC 354 The Helping Process 5
 SC 450 Social Welfare Process and Services 5
 SC 488 Internship 5
 SC Elective (selected in consultation with adviser) 5

Please Note: 1. A minimum of 30 upper-division credits will be required for graduation. 2. Transfer students must complete a minimum of 25 credits in sociology at Seattle University.

Minor in Sociology

In order to earn a minor in sociology, students must complete 30 credits in sociology, including:

- SC 120 Introductory Sociology 5
 One course each from Areas I, II, III, IV, and V 25
 (See Major Requirements.)

Please Note: Transfer students must take at least 15 upper-division credits at Seattle University for the minor. See policy for minors on page 46.

Sociology Courses**SC 120 Introductory Sociology 5**

A description of the science of sociology; an analysis of interpersonal relations, of associations and social institutions, and of the way these affect one another and are affected by culture. Correlates with PL 220.

SC 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 location and spatial distribution of human activities in terms of natural and cultural regions. The significance of place; special focus on Pacific Northwest.

- SC 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.
- SC 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, etc.; changes in contemporary family and kinship relations.
- SC 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 behaviors; small-group dynamics, collective behavior.
- SC 230 Cultural Anthropology 5**
 Study of the nature and dynamics of cultural processes, the evolution of human beings and cultures, and diversity of 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 sociocultural systems; impacts of Westernization on native peoples today.
- SC 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.
- SC 291 Special Topics 1 to 5**
SC 292 Special Topics 1 to 5
SC 293 Special Topics 1 to 5
- SC 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.

SC 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.

SC 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.

SC 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.

SC 340 Classical Sociological Theory 5

Examination of the classical theoretical tradition in sociology. Origins of sociology and the social sciences, contexts and changes in social organization, especially the Twin Revolution—Industrial and French; founders and schools. Development of sociological theory in the 19th and early 20th centuries: special focus on Marx, Durkheim, and Weber; continuing significance of classical models today.

SC 346 Social Statistics 5

Exercises in basic descriptive and inferential statistics as used in the social sciences, including measures of central tendency and dispersion, parametric and non-parametric measures of correlation, and association in higher-level analysis.

SC 348 Quantitative Research Methods 5

Research logic, strategy and design, nature of hypotheses and how to test them; operationalization of variables; instrumentation with tests for reliability and validity; sampling procedures; data gathering techniques; data processing and analysis with statistical techniques.

SC 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.

- SC 421 Gender Roles 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.
- SC 424 Sociology of Mental Illness 5**
The nature, dynamics, and treatment of madness and insanity from a sociocultural 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.
- SC 430 Sociology of the Future 5**
Examination of the mainline patterns and trends of our time and scenarios of the future; critiques and alternatives.
- SC 438 Anthropology of Pacific Northwest Peoples 5**
Study of the cultures of native peoples of the north Pacific coast and intermountain 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 inter-tribal relations, native-white relations, and native-government relations. Contemporary changes, politics, and future prospects.
- SC 442 Contemporary Sociological Theory 5**
Examination of major theoretical perspectives in contemporary sociology. Development of sociological theory in the 20th century, especially since WW II; leading thinkers and schools. Exercises in theory construction and the practical application of theories.
- SC 444 Qualitative Research Methods 5**
Hands-on practical exercises in qualitative methods of social research: participant-observation field research, interviewing, ethnographic description, content analysis, document analysis and archival research, logic and methods of comparative and historical research.
- SC 450 Welfare Policies and Services 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.
- SC 452 Social Work with Children and Youth 5**
A practice-oriented course focusing on methods of working with children and youth in social and interpersonal conflict situations at home, school, and in the community.

- SC 456 Social Work with Adults and Aged 5**
Examines the history and current status of service to adults and aged. Current concepts about the aging process and theoretical frameworks which attempt to explain or resolve the social problems of adults and aged are presented.
- SC 462 Ethnic Families of America 5**
Description and theoretical analysis of various ethnic groups in historical development of American society and the impacts of their cultural perspectives on American family life.
- SC 480 Interdisciplinary Core Course 3 to 5**
Title and content change each term.
- SC 482 Evaluation Research 5**
Application of basic research design and logic to programs for the purpose of evaluation of performance. Also, the techniques for making social, economic, and environmental impact assessment. Prerequisites: SC 346 and either SC348 or SC444.
- SC 488 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.
- SC 491 Special Topics 1 to 5**
SC 492 Special Topics 1 to 5
SC 493 Special Topics 1 to 5
- SC 496 Independent Study 1 to 5**
SC 497 Independent Study 1 to 5
SC 498 Independent Study 1 to 5

Theology and Religious Studies

Susan Secker, PhD, Chairperson

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

Graduate Programs in the Institute for Theological Studies. (see *Graduate Bulletin of Information*.)

Master of Arts in Pastoral Studies

Master of Arts in Transforming Spirituality

Master of Divinity

Master of Theological Studies

Post-Baccalaureate Certificate in Sacred Universe

Post-Master's Certificate in Transforming Spirituality

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 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 120	Introduction to Western Civilization	5
EN 120	Masterpieces of Literature	5
MT	101, 107, or above	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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 beginning on page 55.

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

- HS 121 Studies in Modern Civilization
- HS 231 Survey of the United States

III. Major Requirements

Sixty credits in theology and religious studies, including:

Introductory Courses

RS 267 Spiritual Traditions: East and West..... 5

Choose one of the following Hebrew Bible courses: 5

RS 200 The Hebrew Bible

RS 201 Torah: The Birth of a People

RS 208 Women and the Hebrew Bible

Choose one of the following New Testament courses: 5

RS 211 The Gospel of Jesus Christ

RS 217 The Message of Paul

RS 221 John: A Different Gospel

Intermediate Courses

Choose two of the following systematics courses: 10

RS 300 Themes of Christian Faith

RS 301 Women and Theology

RS 303 Theology of the Person

RS 310 Jesus the Christ

RS 312 Rethinking God

RS 317 Church as Community

RS 321 Symbol, Ritual, and Sacrament

Choose one of the following ethics courses: 5

RS 330 God, Money, and Politics

RS 334 Jesus and Liberation

RS 338 Human Sexuality: The Challenge of Love

RS 341 Contemporary Ethical Issues

RS 345 Biomedical Ethics: The Giving and Taking of Life

RS 347 Christianity and Ecology

Advanced Courses

Choose one of the following two courses: 5

RS 407 Interpreting the Hebrew Bible

RS 414 Interpreting the Synoptics

RS 401 Theology of Religions 5

RS 419 Historical Theology I 5

RS 420 Historical Theology II 5

RS 461 Theology Seminar 5

RS *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 page 46.

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.

Core Phase II: Person in Society—Religious Experience RS 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.

RS 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.

- RS 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.
- RS 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.
- RS 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).
- RS 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.
- RS 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.
- RS 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.
- RS 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.

RS 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.

RS 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.

RS 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.

RS 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.

RS 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.

RS 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.

RS 291	Special Topics	2 to 5
RS 292	Special Topics	2 to 5
RS 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.

- RS 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.
- RS 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.
- RS 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.
- RS 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.
- RS 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.
- RS 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.
- RS 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.

RS 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.

RS 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.

RS 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.

RS 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.

**RS 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.

RS 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.

RS 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 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.

RS 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).

RS 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.

RS 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. Prerequisite: major, minor, or permission

RS 480 Interdisciplinary Core Course 5

Title and content may change each term

RS 491 Special Topics 2 to 5

RS 492 Special Topics 2 to 5

RS 493 Special Topics 2 to 5

RS 496 Independent Study 2 to 5

RS 497 Independent Study 2 to 5

RS 498 Independent Study 2 to 5

Women's Studies Minor

Marylou Sena, PhD, and Harriet Shaklee, PhD, Coordinators

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:

WS 401	Women's Studies Seminar	5
	Electives from approved list	25

Please Note: As soon as a student decides to pursue a minor in women's studies, she or he should contact one of the coordinators of the minor. In consultation with the coordinator, 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. Students are expected to meet regularly with their women's studies advisers to plan the minor as part of their overall academic programs.

Courses selected for the minor may include those which fulfill university core or elective requirements, and those taken to fulfill a major. 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 WS 401.

See policy regarding minors on page 46.

Courses Approved for the Women's Studies Minor

Courses Specific to the Minor

WS 101 Introduction to Women's Studies 5

A survey of women in society and the methods and concepts used in women's studies. Exploration of how gender, race, class, and sexuality create similarities, differences, and connections between women. Topics include women's histories, work, creativity, and empowerment; social change; and violence against women.

WS 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.)

CJ 406	Female Offenders	5
EN 440	Women and the Creative Imagination	5
N 372	Issues in Women's Health: A Wellness Perspective	5
PL 220	Philosophy of the Human Person	5
	(with gender-inclusive emphasis, as indicated in the remarks column of the quarterly schedule of classes)	
PL 367	Gender and Social Reality	5
PSY 340	Psychology of Gender	5
RS 208	Women and the Hebrew Bible	5
RS 224	Metaphor and Gender in the Bible	5
SC 421	Gender Roles	5
SC 480E	Women: Image/Reality	5

Special topics courses will be added as departments propose new offerings. Recent class titles include: International Women's Writing; Her Story/His Story; Gays, Myth and Media; and Politics of Gender. Advisers will have current listings as additional courses are approved for the minor. See policy for minors on page 46.



Albers School of Business and Economics

Jerry A. Viscione, PhD, Dean

C. Frederick DeKay, PhD, Associate Dean

Hildegard Hendrickson, PhD, Interim Associate Dean

Kathryn Lewis, MBA, Director of Graduate Programs

David White, Assistant Director of Graduate Programs

Wendie Phillips, MA, Director of Undergraduate Programs

Ann Roesener, MA, Director of Albers Placement Center

Department Chairpersons

Accounting: David E. Tinius, PhD

Administration: Robert B. Grimm, SJ

Economics and Finance: Barbara M. Yates, PhD

Undergraduate Program Chair: Mary Jean Rivers, PhD

Interim 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: Karen Brown, PhD

Professorships and Endowed Chairs

Robert D. O'Brien Chair in Business: Len Mandelbaum, PhD

Centers

The Entrepreneurship Center: Harriet Stephenson, PhD, Director

Objectives

Collegiate education for business should prepare students for business careers and service to the community, not simply for job-finding. A broad, liberal education, comparable to university studies in other professional fields, provides a sound base for development of managerial talents.

The programs of the Albers School of Business and Economics implement the purpose of the university by providing professional guidance and instruction for developing those qualities which lead to competent leadership and service in the various fields of economic endeavor. The Albers School seeks to prepare graduates capable of assuming responsible roles in the economic development of the Pacific Northwest, as well as national and international sectors, and in both private enterprise and government.

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. In addition, the school offers a bachelor of arts in economics degree program.

Minors are offered in business administration and in economics. Certificates of post-baccalaureate studies are also available.

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

Minors Offered

Business Administration

Economics

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

Curriculum

The program of required study for the bachelor's degree in business has four principal components: the university core, business foundation requirements, major requirements, and electives. All students in the baccalaureate degree program 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 ACC, BUSA, EC, FIN, IB, MGMT, MKTG, and OP.

Students may earn a double concentration in two areas of business by completing a total of 190 credits and the degree requirements for both majors. Students must complete at least 25 credits in each major. Individualized major may not be one of the areas of a double concentration.

General Program Requirements

A minimum of 180 credits is required for bachelor degrees 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/E and may not be used to satisfy a required course or major elective.

Students transferring from another institution normally must earn at least 40 hours (55 hours for accounting majors) of upper-division credits in business and/or economics at Seattle University. Students pursuing a bachelor's degree in economics (BAE) must earn at least 20 credits of upper division economics at Seattle University. Special rules may apply to transfer students with more than 90 credits. See an academic adviser or the registrar for specific course requirements.

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 in direction 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:

Undergraduate and Graduate Mentor Programs

Internships

Job Notes (weekly bulletin of job listings)

Professional Skills Programs (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.

A transfer applicant 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 with 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, requires at least 90 credits and a cumulative grade point average of 2.25 is required. Also, BABA students must have completed MT 118 and 130 or the equivalent, EC 260, and at least four of these seven other required lower-division courses: ACC 230, 231, COM 235, CSC 103, and EC 260, 271, 272. The grade point average in these courses must be no less than 2.25.
3. Both BABA and bachelor of arts in economics (BAE) students must maintain a 2.25 cumulative grade point average and a 2.25 business cumulative grade point average.
4. Effective fall 1990, newly admitted students to 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 MT 118, 130, CSC 103, EC 271, and COM 235.
5. Students applying for readmission after an absence of more than one calendar year will be required to meet program and performance requirements in force at the time of readmission.
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 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 BAE 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 180 quarter credits with a cumulative and major/program grade point average of 2.25, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
Choose one of the following two courses:		5
HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	
EN 120	Masterpieces of Literature	5
MT 130	Elements of Calculus for Business (or MT 134)*	5
FA 120	Experiencing the Arts	5
PL 220	Philosophy of the Human Person	5
Lab Science	.....	5
Social Science I (not economics)	.....	5

Social Science II (EC 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
Senior Synthesis (satisfied by MGMT 482)*	5

*Major requirement and must be graded C- or better.

See detailed core curriculum information beginning on page 55.

II. ASBE Arts and Sciences Requirements

Arts and Sciences Elective (or MT 118*)	5
CSC 103 Introduction to Computers and Applications*	5
COM 235 Communication for Business*	5

III. ASBE Business Foundation Requirements*

Sixty credits, including:

ACC 230 Principles of Accounting I	5
ACC 231 Principles of Accounting II	5
EC 260 Business Statistics	5
EC 272 Principles of Economics—Micro	5
EC 310 Quantitative Methods and Applications	5

Choose one of the following two courses:

MGMT 320 Global Environment of Business	
EC 330 Int'l Economic Events and Business Decisions	
FIN 340 Business Finance	5
MKTG 350 Introduction to Marketing	5
OP 360 Manufacturing and Service Operations	5
BUSA 370 Business and International Law	5
MGMT 380 Principles of Management	5
MGMT 482 Business Policy and Strategy	5

IV. Major Requirements*

Forty credits, including:

ACC 330 Cost Accounting	5
ACC 331 Intermediate Accounting I	5
ACC 332 Intermediate Accounting II	5
ACC 333 Intermediate Accounting III	5
ACC 336 Federal Income Tax I	5
ACC 435 Auditing	5
ACC 437 Accounting Information Systems	5
ACC Electives	5
(Choose from ACC 430, 431, 432, 433, 436, 439, or other approved upper-division accounting courses.)	

* 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 180 quarter credits with a cumulative and major/program grade point average of 2.25, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
Choose one of the following two courses:		
HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	
EN 120	Masterpieces of Literature	5
MT 130	Elements of Calculus for Business (or MT 134)*	5
FA 120	Experiencing the Arts	5
PL 220	Philosophy of the Human Person	5
Lab Science	.....	5
Social Science I (not economics)	.....	5
Social Science II (EC 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
Senior Synthesis (satisfied by MGMT 482)*	.....	5

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

See detailed core curriculum information beginning on page 55.

II. ASBE Arts and Sciences Requirements

Arts and Sciences elective (or MT 118*) 5
 CSC 103 Introduction to Computers and Applications* 5
 COM 235 Communication for Business* 5

III. ASBE Business Foundation Requirements*

Sixty credits, including:

ACC 230 Principles of Accounting I 5
 ACC 231 Principles of Accounting II 5
 EC 260 Business Statistics 5
 EC 272 Principles of Economics—Micro 5
 EC 310 Quantitative Methods and Applications 5

Choose one of the following two courses: 5

MGMT 320 Global Environment of Business
 EC 330 Int'l Economic Events and Business Decisions

FIN 340 Business Finance 5
 MKTG 350 Introduction to Marketing 5
 OP 360 Manufacturing and Service Operations 5
 BUSA 370 Business and International Law 5
 MGMT 380 Principles of Management 5
 MGMT 482 Business Policy and Strategy 5

IV. Major Requirements*

Twenty-five credits, including:

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

Choose one of the following two courses: 5

EC 474 Forecasting Business Conditions
 EC 463 Applied Econometrics

Please note: 1. EC 330 must be taken as part of the business foundation or as an upper-division economics course. 2. EC 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 180 quarter credits with a cumulative and major grade point average of 2.25, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
Choose one of the following two courses:		5
HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	
EN 120	Masterpieces of Literature	5
MT 130	Elements of Calculus for Business (or MT 134)*	5
FA 120	Experiencing the Arts	5
PL 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

See detailed core curriculum information beginning on page 55.

II. Major Requirements*

Seventy credits including:

CSC 103	Introduction to Computer Applications	5
EC 260	Business Statistics	5
EC 271	Principles of Economics-Macro	5
EC 272	Principles of Economics-Micro	5
EC 310	Quantitative Methods and Applications	5
EC 330	International Economics Events and Bus. Decisions	5
EC 374	Intermediate Microeconomics	5
EC	Electives	30
	(Choose from EC 370, 376, 379, 463, 468, 471, 472, 473, 474, 475, 476, 478, 483, FIN 443)	
EC	Senior Synthesis core requirement—choose one of the following two courses:	5
	EC 470 History of Economics Thought	
	EC 479 Senior Research (with permission of department chair)	

Please Note: 1. For the bachelor of arts in economics, at least 20 credits of the economics electives must be at a 400 level. 2. EC 377, 386, and 479 will not satisfy one of the upper-division economic electives. 3. ACC 230 Principles of Financial Accounting and COM 235 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 EC 271, 272, 330, 374, and 10 credits of 300-level or 400-level electives in economics, selected with the assistance of an adviser. EC 386, 377, and 479 will not satisfy the upper division electives. See minor listings following major programs and policy for minors on page 46.

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 180 quarter credits with a cumulative and major/program grade point average of 2.25, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
Choose one of the following two courses:		5
HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	
EN 120	Masterpieces of Literature	5
MT 130	Elements of Calculus for Business (or MT 134)*	5
FA 120	Experiencing the Arts	5
PL 220	Philosophy of the Human Person	5
Lab Science	.....	5
Social Science I (not economics)	.....	5
Social Science II (EC 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
Senior Synthesis (satisfied by MGMT 482)*	.....	5

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

See detailed core curriculum information beginning on page 55.

II. ASBE Arts and Sciences Requirements

Arts and Sciences Elective (or MT 118*)	5
CSC 103 Introduction to Computers and Application*	5
COM 235 Communication for Business*	5

III. ASBE Business Foundation Requirements*

ACC 230 Principles of Accounting I	5
ACC 231 Principles of Accounting II	5
EC 260 Business Statistics	5
EC 272 Principles of Economics—Micro	5
EC 310 Quantitative Methods and Applications	5
Choose one of the following two courses:	5
MGMT 320 Global Environment of Business	
EC 330 Int'l Economic Events and Business Decisions	
FIN 340 Business Finance	5
MKTG 350 Introduction to Marketing	5
OP 360 Manufacturing and Service Operations	5
BUSA 370 Business and International Law	5
MGMT 380 Principles of Management	5
MGMT 482 Business Policy and Strategy	5

IV. Major Requirements*

Twenty-five credits, including:

FIN 342 Intermediate Corporate Finance	5
FIN 344 Investments and Portfolio Theory	5
FIN 443 Financial Institutions and Markets	5
FIN Electives	10
(Choose from EC 330, FIN 441, 444, 445, 446, or other approved upper-division finance courses.)	

Please Note: 1. Finance majors must take EC 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. ACC 432 Financial Statement Analysis is highly recommended as a general elective.

* Major requirements 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 later to 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 180 quarter credits with a cumulative and major/program grade point average of 2.25, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
Choose one of the following two courses:		
HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	
EN 120	Masterpieces of Literature	5
MT 130	Elements of Calculus for Business (or MT 134)*	5
FA 120	Experiencing the Arts	5
PL 220	Philosophy of the Human Person	5
Lab Science	.....	5
Social Science I (not economics)	.....	5
Social Science II (EC 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
Senior Synthesis (satisfied by MGMT 482)*	.....	5

See detailed core curriculum information beginning on page 55.

II. ASBE Arts and Sciences Requirements

Arts and Sciences Elective (or MT 118*)	5
CSC 103 Introduction to Computers and Application*	5
COM 235 Communication for Business*	5

III. ASBE Business Foundation Requirements*

ACC 230 Principles of Accounting I	5
ACC 231 Principles of Accounting II	5
EC 260 Business Statistics	5
EC 272 Principles of Economics—Micro	5
EC 310 Quantitative Methods and Applications	5

Choose one of the following two courses:

MGMT 320 Global Environment of Business	
EC 330 Int'l Economic Events and Business Decisions	5

FIN 340 Business Finance	5
MKTG 350 Introduction to Marketing	5
OP 360 Manufacturing and Service Operations	5
BUSA 370 Business and International Law	5
MGMT 380 Principles of Management	5
MGMT 482 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

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 180 quarter credits with a cumulative and major/program grade point average of 2.25, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5

Choose one of the following two courses:

HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	

EN 120	Masterpieces of Literature	5
MT 130	Elements of Calculus for Business (or MT 134)*	5
FA 120	Experiencing the Arts	5
PL 220	Philosophy of the Human Person	5
Lab Science	.....	5
Social Science I (not economics)	.....	5
Social Science II (EC 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
Senior Synthesis (satisfied by MGMT 482)*	.....	5

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

See detailed core curriculum information beginning on page 55.

II. ASBE Arts and Sciences Requirements

Arts and Sciences elective (or MT 118*)	5
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CSC 103	Introduction to Computers and Application*	5
COM 235	Communication for Business*	5

III. ASBE Business Foundation Requirements*

ACC 230	Principles of Accounting I	5
ACC 231	Principles of Accounting II	5
EC 260	Business Statistics	5
EC 272	Principles of Economics—Micro	5
EC 310	Quantitative Methods and Applications	5
Choose one of the following two courses:		5
MGMT 320	Global Environment of Business	
EC 330	Int'l Economic Events and Business Decisions	
FIN 340	Business Finance	5
MKTG 350	Introduction to Marketing	5
OP 360	Manufacturing and Service Operations	5
BUSA 370	Business and International Law	5
MGMT 380	Principles of Management	5
MGMT 482	Business Policy and Strategy	5

IV. Major Requirements*

Twenty-five upper-division credits, plus supplemental activities:

EC 386	International Business Enterprise	5
MGMT 486	International Management	5
Electives	(Choose two from BUSA 476, FIN 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 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

The general area of management is concerned with the administration of private business or public enterprise. It includes relating the goals of an enterprise with the goals of those individuals and groups of individuals who make the enterprise a continuing process. The management major is designed for students seeking careers in administration, personnel, or industrial relations in business or government.

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 180 quarter credits with a cumulative and major/program grade point average of 2.25, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5

Choose one of the following two courses:

HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	

EN 120	Masterpieces of Literature	5
MT 130	Elements of Calculus for Business (or MT 134)*	5
FA 120	Exploration of the Arts	5
PL 220	Philosophy of the Human Person	5
Lab Science	.....	5
Social Science I (not economics)	.....	5
Social Science II (EC 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
Senior Synthesis (satisfied by MGMT 482)*	.....	5

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

See detailed core curriculum information beginning on page 55.

II. ASBE Arts and Sciences Requirements

Arts and Sciences Elective (or MT 118*) 5
 CSC 103 Introduction to Computers and Applications* 5
 COM 235 Communication for Business* 5

III. ASBE Business Foundation Requirements*

ACC 230 Principles of Accounting I 5
 ACC 231 Principles of Accounting II 5
 EC 260 Business Statistics 5
 EC 272 Principles of Economics-Micro 5
 EC 310 Quantitative Methods and Applications 5

Choose one of the following two courses: 5

MGMT 320 Global Environment of Business
 EC 330 Int'l Economic Events and Business Decisions

FIN 340 Business Finance 5
 MKTG 350 Introduction to Marketing 5
 OP 360 Manufacturing and Service Operations 5
 BUSA 370 Business and International Law 5
 MGMT 380 Principles of Management 5
 MGMT 482 Business Policy and Strategy 5

IV. Major Requirements*

Twenty-five credits, including:

MGMT 382 Organizational Behavior 5
 MGMT 383 Human Resource Management 5
 MGMT 481 Small Business Management 5
 MGMT Electives 10
 (Choose from MGMT 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 180 quarter credits with a cumulative and major/program grade point average of 2.25, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5

Choose one of the following two courses:

HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	

EN 120	Masterpieces of Literature	5
MT 130	Elements of Calculus for Business (or MT 134)*	5
FA 120	Experiencing the Arts	5
PL 220	Philosophy of the Human Person	5
Lab Science	.....	5
Social Science I (not economics)	.....	5
Social Science II (EC 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
Senior Synthesis (satisfied by MGMT 482)*	.....	5

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

See detailed core curriculum information beginning on page 55.

II. ASBE Arts and Sciences Requirements

Arts and Sciences elective (or MT 118*)	5
CSC 103 Introduction to Computers and Applications*	5
COM 235 Communication for Business*	5

III. ASBE Business Foundation Requirements*

ACC 230 Principles of Accounting I	5
ACC 231 Principles of Accounting II	5
EC 260 Business Statistics	5
EC 272 Principles of Economics—Micro	5
EC 310 Quantitative Methods and Applications	5

Choose one of the following two courses:

MGMT 320 Global Environment of Business	
EC 330 Int'l Economic Events and Business Decisions	
FIN 340 Business Finance	5
MKTG 350 Introduction to Marketing	5
OP 360 Manufacturing and Service Operations	5
BUSA 370 Business and International Law	5
MGMT 380 Principles of Management	5
MGMT 482 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: EC 374, 472, 473, and OP 361 and 362 are strongly recommended as general electives.

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

Operations

Karen Brown, PhD, Program Director

Objectives

The operations concentration was 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 effectiveness of processes that transform resources into goods and services. This topic has gained increased attention in recent years because of the need for American industry to improve its global competitiveness. Four professional tracks are offered within this concentration: Quality, Purchasing, Planning, and General Operations. Course work provides students with technical skills, theoretical background, and hands-on exposure to industry practices in service and manufacturing settings. An emphasis is placed on the development of 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 180 quarter credits with a cumulative and major/program grade point average of 2.25, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
Choose one of the following two courses:		5
HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	
EN 120	Masterpieces of Literature	5
MT 130	Elements of Calculus for Business (or MT 134)*	5
FA 120	Experiencing the Arts	5
PL 220	Philosophy of the Human Person	5
Lab Science	.....	5
Social Science I (not economics)		5
Social Science II (EC 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
Senior Synthesis (satisfied by MGMT 482)*	5

See detailed core curriculum information beginning on page 55.

II. ASBE Arts and Sciences Requirements

Arts and Sciences elective (or MT 118*)	5
CSC 103 Introduction to Computers and Applications*	5
COM 235 Communication for Business*	5

III. ASBE Business Foundation Requirements*

ACC 230 Principles of Accounting I	5
ACC 231 Principles of Accounting II	5
EC 260 Business Statistics	5
EC 272 Principles of Economics—Micro	5
EC 310 Quantitative Methods and Applications	5

Choose one of the following two courses:

MGMT 320 Global Environment of Business	
EC 330 Int'l Economic Events and Business Decisions	
FIN 340 Business Finance	5
MKTG 350 Introduction to Marketing	5
OP 360 Manufacturing and Service Operations	5
BUSA 370 Business and International Law	5
MGMT 380 Principles of Management	5
MGMT 482 Business Policy and Strategy	5

IV. Major Requirements*

Twenty-five credits, including:

OP 361 Operations Strategy	5
OP 362 Principles of Quality	5
OP 363 Operations Planning and Control Systems	5

Plus one of the following tracks:

- Purchasing: OP 364 and 464
- Quality: OP 462 and 466
- Planning: OP 467, OP 466, or ACC 330
- General Operations: OP 364, 462, 464, 465, 466, 467, ACC 330, MGMT 485, MKTG 451 or other approved 300- or 400-level operations course. At least one of these two classes must be a 400-level course and at least one must have an OP prefix.

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

*Major requirements 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:

MT 130	Elements of Calculus for Business (or MT 134)
COM 235	Communication for Business
EC 271	Principles of Economics-Macro
EC 272	Principles of Economics-Micro
CSC 103	Introduction to Computers and Applications

Business courses:

EC 260	Business Statistics
ACC 230	Principles of Accounting-Financial
ACC 231	Principles of Accounting-Managerial
FIN 340	Business Finance
MKTG 350	Introduction to Marketing
MGMT 380	Principles of Management

Plus one of the following: Any 300- or 400-level business course for which prerequisites have been met. 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.

Minor in Economics

To earn a minor in economics, students must complete thirty credits of economics, including the following:

EC 271	Principles of Economics-Macro	5
EC 272	Principles of Economics-Micro	5
EC 330	International Econ. Events and Bus. Decisions	5
EC 374	Intermediate Microeconomics	5
EC	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. EC 377, 386 and 479 will not satisfy the upper division economics electives. See policy for minors on page 46.

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 3.4 grade point average or greater. 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: BAE 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 3.4 grade point average or greater. Part-time undergraduates and transfer students can participate in the program on a modified schedule. Interested students should contact the undergraduate program chair.

Five-Year Program: Bachelor's Degree and Master of Arts in Applied Economics (MAE)

The Albers School of Business and Economics offers an opportunity for academically superior undergraduates to accelerate their undergraduate work and be granted early admission to the MAE program. The program allows students to complete a bachelor's degree in one of many majors and a master of arts in applied economics in a five-year period. This program is open to full-time undergraduates with at least a 3.4 grade point average. Part-time undergraduates and transfer students can participate in the program on a modified schedule. Interested students should contact the undergraduate program chair.

Certificate of Post-Baccalaureate Studies

The Albers School of Business and Economics offers 1) an undergraduate certificate in business for students with a bachelor's degree in a non-business area and 2) certificates in specific disciplines for students with a bachelor's degree in business. The certificates of post-baccalaureate studies in business provides an opportunity for graduates of non-business undergraduate programs to develop expertise and acquire a credential 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 and fulfills many of the foundation-level course requirements for the MBA degree. The academic credit may 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. Students 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. 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

- ACC 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)
- ACC 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: ACC 230 and sophomore standing. (fall, winter, spring)
- ACC 330 Cost Accounting 5**
Determination of manufacturing costs in job order and process cost systems, including standard cost measurement; introduction to methods of cost control. An emphasis on effective written communication in the cost accounting function. Prerequisites: ACC 231 and junior standing.
- ACC 331 Intermediate Accounting I 5**
Theory and development of accounting principles; evolution of theory as it

relates to the current state of accounting for the assets of the entity and the measurement and reporting of periodic income. Introduction to international accounting issues. One-third of the class time will be devoted to written and oral communications skill development. Prerequisites: ACC 231 and junior standing.

ACC 332 Intermediate Accounting II 5

Theory and development of accounting principles; evolution of theory as it relates to the current state of accounting liabilities and owner's equities, including issues in international accounting. Prerequisite: ACC 331.

ACC 333 Intermediate Accounting III 5

Study of advanced topics in accounting theory and practice with emphasis upon financial reporting. Selected areas include: accounting for income taxes, pensions, leases, accounting changes, interim and segment reporting, statement of cash flows, and disclosure requirements, including international accounting issues. Special emphasis on accounting for governmental and non-profit organizations. Prerequisite: ACC 332.

ACC 336 Federal Income Tax I 5

Taxation of individuals; gross income and deductions; property transactions; use of tax service and research in tax problems. Prerequisites: ACC 231 and junior standing.

ACC 430 Advanced Cost Accounting 5

An extension of ACC 330, this course focuses upon the structure of management control systems, as contrasted with product costing systems. Both the technical processes (quantitative models, such as flexible budgets, forecasting methods, variance analysis, and decision models) and the behavioral processes (organizational structures, employee participation, and compensation) are stressed. Emphasis given to oral and written communications skill development. Prerequisites: ACC 231, 330, EC 260.

ACC 431 Advanced Financial Accounting 5

Special accounting problems associated with partnerships, international transactions, and business combinations. Particular emphasis on consolidated financial statements. Emphasis given to the development of oral and written communications skills. Prerequisite: ACC 332.

ACC 432 Financial Statement Analysis 5

Develops an understanding of the tools and techniques used in the analysis of financial statements. Develops an understanding of the use and application of financial statements in decision-making, both internally and by investors and creditors. Both liquidity and profitability analysis will be examined. Emphasis given to the development of oral and written communications skills. Prerequisites: ACC 230, 231, and FIN 340.

ACC 433 Seminar in Accounting Theory 5

Critical examination of accounting theories; concepts, postulates, and principles related to income measurement, assets, liabilities, and equities.

Emphasis given to the development of oral and written communications skills. Prerequisite: ACC 332.

ACC 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: ACC 332.

ACC 436 Federal Income Tax II 5

Study of advanced topics in federal taxation, including tax research and administrative procedure, with emphasis on the taxation and partnerships and corporations. Course includes assisting taxpayers with preparation of their individual income tax returns with the supervision of tax professionals. Emphasis 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 winter and spring quarters. Students receive an "N" grade for winter quarter and the course grade spring quarter. Prerequisite: ACC 336

ACC 437 Accounting Systems and Communications 5

Study of accounting information systems and their managerial aspects, with a significant, approximately one-third, emphasis on oral and written business communications skill development. Topics include computer technology, systems controls, systems analysis, and design, as well as specific applications in accounts payable, inventory, payroll, billing, cash, and property. Prerequisites: ACC 330, 332, CSC 103.

ACC 439 Advanced Auditing/Internal Auditing 5

Analysis of current issues in auditing, including audit experience through an audit simulation. The course is designed to extend knowledge of audit decision-making and improve written and oral communication abilities. Topics included will be closely tied to current issues facing the accounting and audit professional. Prerequisites: ACC 331, 332, 333, and 435.

ACC 491 Special Topics 2 to 5

ACC 496 Independent Study 1 to 5

ACC 497 Independent Study 1 to 5

ACC 498 Independent Study 1 to 5

Supervised individual research and internships. Open to senior business majors with the approval of the student's adviser. Must be taken CR/E. An independent study does not satisfy a major requirement.

BUSA 291 Special Topics 1 to 5

BUSA 292 Special Topics 1 to 5

BUSA 293 Special Topics 1 to 5

BUSA 310 Information Systems Mgmt. in Business 5

Introduction to computer-based information system concepts for end-user business managers. Topics include an overview of functional business systems, information system planning, systems analysis and design, systems selection, acquisition, contracting, current technology, (e.g. data communications, decision support, and expert systems, networking, database modeling), data security and control, and computer ethics. Course methods may include lecture, case analysis, and group or individual projects. Prerequisites: junior standing and CSC 103.

BUSA 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.

BUSA 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: BUSA 370.

BUSA 491 Special Topics 2 to 5

BUSA 492 Special Topics 2 to 5

BUSA 493 Special Topics 2 to 5

BUSA 496 Independent Study 1 to 5

BUSA 497 Independent Study 1 to 5

BUSA 498 Independent Study 1 to 5

Supervised individual research and internships. Open to senior business majors with the approval of the student's adviser. Must be taken CR/E. An independent study does not satisfy a major requirement.

EC 120 Introduction to Economic Society 5

Development of the conventional economic model, including its philosophical assumptions. Implications for contemporary economic performance. Applications to issue of social justice. Correlates with PL 220.

EC 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: MT 130, CSC 103.

- EC 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)
- EC 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)
- EC 310 Quantitative Methods and Applications 5**
This course is a continuation of EC 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: CSC 103 and EC 260.
- EC 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: EC 271 and junior standing. Serves as Intermediate Macroeconomics course for economics majors and minors.
- EC 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: EC 271, EC 272 and junior standing.
- EC 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: EC 272; MT 130 or MT 134 and junior standing.
- EC 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: EC 271, 272, and junior standing. Does not satisfy EC elective for business economics majors.
- EC 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: EC 271 or 272 and junior standing. Interdisciplinary core course. Does not satisfy requirement toward business economics, economics major or minor. (formerly Government and Business)

EC 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: EC 271, 272, and junior standing.

EC 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: EC 271, 272, and junior standing. For International Business and International Studies majors; does not fill requirement for business economics, economics majors or minors. (formerly IB 386)

EC 391 Special Topics 1 to 5

EC 392 Special Topics 1 to 5

EC 393 Special Topics 1 to 5

EC 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: MT 130 or 134; EC 310. (formerly EC 373)

EC 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: EC 271, EC 272, and junior standing.

EC 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: EC 271, 272, and junior standing. Can serve as Senior Synthesis for economics majors.

EC 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: EC 271, 272, and junior standing.

EC 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: EC 271, 272, and junior standing.

EC 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: EC 271, 272, and junior standing; EC 330 recommended.

EC 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: EC 271, 272, and 310.

EC 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: EC 271, 272, and junior standing; EC 374 recommended.

EC 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: EC 271, 272, and junior standing.

EC 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: EC 272 and junior standing. (formerly EC 378)

EC 479 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.

EC 483 Topics in Macroeconomics 5

Topics such as business cycles, growth theory and policy, open economy issues. Prerequisites: EC 272, 330.

EC 491 Special Topics 2 to 5

EC 492 Special Topics 2 to 5

EC 493 Special Topics 2 to 5

EC 496 Independent Study 1 to 5

EC 497 Independent Study 1 to 5

- EC 498 Independent Study 1 to 5**
Supervised individual research and internships. Open to senior economics majors with approval of adviser. Must be taken CR/E as non-major elective. An independent study does not satisfy a major requirement.
- FIN 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: EC 271, ACC 231, and junior standing. (fall, winter, spring)
- FIN 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: FIN 340.
- FIN 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: FIN 340.
- FIN 391 Special Topics 2 to 5**
FIN 392 Special Topics 2 to 5
- FIN 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: FIN 342.
- FIN 443 Financial Institutions and Marketing 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: EC 271, FIN 340.
- FIN 444 Security Analysis 5**
Analysis of the securities of public entities and private firms from both individual and institutional viewpoints. Prerequisite: FIN 340.
- FIN 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: FIN 340.
- FIN 446 International Corporate and Trade Finance 5**
Investigates techniques used to manage the financial activities of a corpo-

ration 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: FIN 340.

FIN 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: FIN 340, 342, 344.

FIN 491 Special Topics 2 to 5

FIN 496 Independent Study 1 to 5

FIN 497 Independent Study 1 to 5

FIN 498 Independent Study 1 to 5

Supervised individual research and internships. Open to senior business majors with the approval of the student's adviser. Must be taken CR/E. An independent study does not satisfy a major requirement.

IB 491 Special Topics 2 to 5

IB 496 Independent Study 1 to 5

IB 497 Independent Study 1 to 5

IB 498 Independent Study 1 to 5

Supervised individual research and internships. Open to senior business majors with the approval of the student's adviser. Must be taken CR/E. An independent study does not satisfy a major requirement.

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. This course will provide a framework for understanding organizational action within an increasingly global environment. Prerequisite: junior standing.

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.

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, com-

pensation, career planning, employee relations, discipline, and organizational exit. Prerequisite: MGMT 380.

MGMT 387 Business Communications 5

Elements of the communication process, formal and informal networks, verbal and non-verbal messages, listening, conflict styles, effective meetings, small group communication, oral presentations, written communications, and intercultural considerations. Prerequisite: MGMT 380.

MGMT 391 Special Topics 2 to 5

MGMT 392 Special Topics 2 to 5

MGMT 393 Special Topics 2 to 5

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 481 Small Business Management 5

Procedures and problems in starting and operating a successful small business enterprise. Prerequisite: senior standing.

MGMT 482 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)

MGMT 483 Management Seminar 5

Development of a specific area of management. Various approaches to study of organizations, conceptual and analytical methods, research methodologies, and trends in management. Prerequisite: MGMT 380 and senior standing.

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 principals, 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 491 Special Topics	2 to 5
MGMT 492 Special Topics	2 to 5
MGMT 493 Special Topics	2 to 5

MGMT 496 Independent Study	1 to 5
MGMT 497 Independent Study	1 to 5
MGMT 498 Independent Study	1 to 5

Supervised individual research and internships. Open to senior business majors with the approval of the student's adviser. Must be taken CR/E. An independent study does 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. (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 EC 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, ACC 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 496 Independent Study **1 to 5**

MKTG 497 Independent Study **1 to 5**

MKTG 498 Independent Study **1 to 5**

Supervised individual research and internships. Open to senior business majors with the approval of the student's adviser. Must be taken CR/E. An independent study does not satisfy a major requirement.

OP 360 Manufacturing and Service Operations **5**

An introduction to the operations function, including operations strategy, operations analysis, quality improvement, work place safety, 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: MT 130, CSC 103, EC 260, and MGMT 380 (MGMT 380 may be taken concurrently with OP 360). (formerly BUSA 360)

OP 361 Operations Strategy **5**

An in-depth examination of operation strategies for manufacturing and service firms and their essential links with other organizational functions, including marketing and finance. 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: OP 360, MKTG 350 (MKTG 350 may be taken concurrently with OP 361).

OP 362 Principles of Quality **5**

This course focuses on customer requirements and introduces tools and concepts available for improving manufacturing and service quality. Course topics include customer needs assessment, societal and ethical issues, customer interaction, quality function deployment, benchmarking, statistical concepts in quality analysis and control, organization for quality, process

analysis tools, quality information systems, and motivational issues. Prerequisites: OP 360, EC 310, MKTG 350 (MKTG 350 may be taken concurrently with OP 362).

OP 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, just-in-time (JIT) systems, demand management, and implementation issues. Students are introduced to computer applications in most topic 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: OP 360, EC 310.

OP 364 Purchasing and Materials Management 5

This course provides an overview of the purchasing and materials management functions. Topics include the buying process, sources of supply, ethical issues, contracts, the use of computers for materials management, cost/price analysis, value analysis, systems buying, make/buy analysis, and hazardous materials. The role of new product development, inventory management, and transportation/logistics are discussed in the context of improving service and competitiveness. Students visit local firms to integrate course topics. Prerequisites: OP 360, OP 362.

OP 391	Special Topics	2 to 5
OP 392	Special Topics	2 to 5
OP 393	Special Topics	2 to 5

OP 462 Advanced Quality 5

An interdisciplinary approach allows for the integration of technical and behavioral methods for improving quality. Topics include implementation strategies, design for quality, concurrent design, quality costs, quality function deployment, loss-function, Taguchi method, design of experiments, process capability, reliability prediction and modeling, special issues for service operations, and further application of tools introduced in OP 362. Students work in teams to apply quality improvement principles in a local organization. Prerequisite: OP 362 and senior standing or instructor's permission.

OP 464 Purchasing Strategy and Negotiation 5

This is the second course in purchasing and serves as an extension of the material covered in OP 364. Taking a strategic posture, OP 464 includes the topics of supplier evaluation, selection and partnerships, supplier development and certification, planning, researching and conducting supplier negotiations, just-in-time applications, and international issues. Students participate in simulated negotiations. Prerequisites: OP 362, OP 364.

OP 465 International Study Tour in Operations 5

Students will spend one to two weeks touring factories and meeting in faculty-led seminar groups in Mexico, Europe, or Asia. Seminar sessions prior to the tours will provide students with relevant backgrounds regarding politics, customs, culture, language, and manufacturing practices. At the end of the tour, each student will write a paper summarizing observations and relating them to previous course work in operations. Prerequisites: OP 360 and faculty permission.

OP 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, time-cost tradeoffs, 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: OP 360.

OP 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: OP 360.

OP 491 Special Topics in Operations 2 to 5**OP 492 Special Topics in Operations 2 to 5****OP 496 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: OP 360 and at least one elective in the operations area.

OP 497 Independent Study 1 to 5**OP 498 Independent Study 1 to 5**

Supervised individual research and internships. Open to senior business majors with the approval of the student's adviser. Must be taken CR/E. An independent study does not satisfy a major requirement.

Ecological Studies

Co-Directors:

David C. Brubaker, PhD

David McCloskey, 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

Trileigh Stroh, PhD, Instructor in General Science

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 variety 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 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
HS 121	Studies in Modern Civilizations	5
EN 120	Masterpieces of Literature	5
MT	111 or 118 or above	5
Lab Sciences	(satisfied by ECS 100)	*
FA 120	Experiencing the Arts	5
PL 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	.....	5
Theology and Religious Studies III	(satisfied by RS 347)	*
Interdisciplinary	.....	3/5
Ecological Studies Senior Synthesis	.....	3

II. Major Program Requirements

Students must see adviser for final program of study. Projected requirements as of May 1995 include 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:

ECS 100	Introduction to Geosystems*	5
ECS 200	Introduction to Ecological Systems	5

Choose one from the following two courses in physical science:

ISC 120	Introduction to Geology	5
ISC 207	Air and Water	

Choose one from the following courses in ecological science

BL 275	Marine Biology	
BL 470	General Ecology	
CEE 477	Special Topics in Civil Engineering: Restoration of Aquatic Ecosystems	

or any summer course from Blakely Island Field Studies.

Area II. Social Sciences: 20 credits including:

SC 202	Human Ecology and Geography	5
PLS 300	Environmental Politics	5

Choose any one of the following four courses

SC 230	Cultural Anthropology*	
PSY 480	Ecological Psychology*	
PLS 306	Native American Politics and Protest*	
PLS 456	The Human Prospect*	

Choose series a. or b. 5
 a. EC 468 Natural Resources and Environmental Economics

b. CEE 476 Environmental Law and Impact Studies (3)
 ISC 491 Special Topics: Impact Statement Analysis (2)

Area III. Humanities: 20 credits including:

HS 351 Environmental History* 5
 PL 309 Environmental Philosophy* 5
 RS 347 Religion and Ecology* 5

Choose any one of the following three courses 5

RS 473 Creation Spirituality
 ECS 360 Nature Writing and Ecological Ethics
 HS 341 The Pacific Northwest

Area IV. Statistical Methods: Choose option a, b, c, d, or e: 5

a. PSY 303 Statistics and Research Methods (4)
 PSY 304 Statistics and Research Methods Lab (1)
 b. SC 346 Social Statistics
 c. PSY 201 Statistics I
 d. EC 260 Business Statistics
 e. PLS 382 Research Methods

Area V. Internship and Colloquium

ECS 488 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

BL 235 Invertebrate Zoology
 BL 252 Taxonomy of Flowering Plants
 EC 478 Urban/Regional Economics
 ECS 491,2,3 Special Topics
 ECS 496,7,8 Independent Study
 ISC 301 To Feed the World*
 PLS 205 Introduction to American Politics*
 PLS 260 Introduction to Global Politics*
 PLS 305 The Policy Process
 PLS 309 Local and State Politics
 PLS 410 Urban Politics and Public Policy
 SC 306 Population Dynamics
 SC 438 Anthropology of Pacific Northwest Peoples

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:

ECS 100	Introduction to Geosystems	5
ECS 200	Introduction to Ecological Studies	5
HS 351	Environmental History	5
PL 309	Environmental Philosophy	5
PLS 300	Environmental Politics	5
RS 347	Religion and Ecology	5
SC 202	Human Ecology and Geography	5

Ecological Studies Courses

ECS 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.

ECS 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: ECS 100 and MT 111 or 118.

ECS 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.

ECS 391	Special Topics	1-5
ECS 392	Special Topics	1-5
ECS 393	Special Topics	1-5

ECS 480	Interdisciplinary core course	3/5
ECS 488	Internship and Colloquium	5

ECS 491	Special Topics	1-5
ECS 492	Special Topics	1-5
ECS 493	Special Topics	1-5

ECS 496	Independent Study	1-5
ECS 497	Independent Study	1-5
ECS 498	Independent Study	1-5

School of Education

Margaret M. Haggerty, PhD, Dean
Dian S. Blom, EdD, Assistant Dean

Department Chairpersons

Administration and Adult Education: Sandra Barker, PhD
Counseling and School Psychology: Max Hines, PhD
Curriculum and Instruction: Katherine Schlick-Noe, PhD
Educational Leadership: Jeremy Stringer, PhD
Teacher Education: Margit 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 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, Administration and Adult Education, 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

Master of Counseling

Educational Specialist

Master of Arts in Education

Master of Arts in Teaching English to Speakers of Other Languages

Master of Education

Master of Education in Teaching English to Speakers of Other Languages

Master in Teaching
 Post-Master's Certificate in Community College Teaching
 Post-Master's Certificate in Teaching English to Speakers of Other
 Languages

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

Candidates will qualify for the certificate to teach kindergarten through eighth grade by successfully completing the master in teaching program.

Secondary Certification*

Candidates must have an academic major or the equivalent in a subject in which full-time placement is available. They also must have their bachelor's or master's degree in 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 associated area (e.g., engineering or environmental studies) must call the master in teaching program secretary at (206) 296-5759 to arrange an appointment with the administrative coordinator for evaluation of transcripts.

The following majors are suitable for secondary certification:

Art	K-12
Bilingual Education	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 (designated)	K-12
History	4-12
Mathematics	4-12
Music	K-12
Physical Education	K-12
Physics	4-12

Science	4-12
Social Studies	4-12
Special Education	K-12

*Endorsements are subject to change in 1994-95. Please check with your education adviser.

The following majors are suitable for additional teaching; however, these must be accompanied by one of the majors listed above:

Agriculture	4-12
Anthropology	4-12
Business Education	4-12
Choral Music	K-12
Computer Science	4-12
Drama	4-12
Math/Science	4-12
Economics	4-12
Geography	4-12
Health	4-12
Home/Family Life Education	4-12
Industrial Arts/Technology	4-12
Instrumental Music	K-12
Journalism	4-12
Learning Resources	K-12
Marketing Education	4-12
Political Science	4-12
Psychology	4-12
Reading	K-12
Sociology	4-12
Speech	4-12
Traffic Safety	K-12

Additional Endorsements

For continuing certification, teachers must obtain a second endorsement in one of the following subject areas. Students are encouraged as undergraduates to complete this state requirement. The following additional endorsements are available at Seattle University. Unless otherwise noted, 24 credits are required.

Art	K-12
Bilingual Education	K-12
Biology	4-12
Chemistry	4-12
Computer Science	4-12
Foreign Language	K-12
French	
German	
Spanish	
Drama	4-12
Early Childhood Education	P-3
Early Childhood Special Education*	P-3
Earth Science	4-12

Economics	4-12
English	4-12
English as a Second Language	K-12
English/Language Arts**	4-12
History	4-12
Journalism	4-12
Mathematics	4-12
Physics	4-12
Political Science	4-12
Psychology	4-12
Reading	K-12
Science**	4-12
Social Studies**	4-12
Sociology	4-12
Special Education	K-12
Speech	4-12

*48 credits required

**45 credits required

Special Education

Students interested in teaching special education may enroll in special education courses during their junior and senior years. A program meeting Washington state's special education endorsement requirements consists of 24 credit hours. Such a program should be designed in cooperation with an education adviser.

Teaching English as a Second Language

The initial certificate and the advanced certificate in teaching English as a second or foreign language provide practical teaching preparation for individuals who seek or hold teaching positions in programs for those learning English as a second or foreign language. Among such programs are those in bilingual education (kindergarten through 12) and in adult basic education in the United States; foreign language schools in other countries; and courses in English for purposes of business or commerce.

The courses may be used for elective credit for the master's degree in adult education and training, the master's degree in curriculum and instruction, and the master's degree in teaching. See the *Graduate Bulletin of Information* for admission requirements, credit limitations, graduate credit, and other special considerations.

Courses are offered, in cooperation with Seattle University's School of Education at the School for Teaching English as a Second Language, 2601 NW 56th, Seattle, WA 98107, (206) 781-8607.

Admission Requirements

- Completion of a bachelor's or advanced degree from a regionally accredited college or professional school.
- An evaluated GPA of 2.75 or above.
- Proficiency in English listening, speaking, reading, and writing. Proficiency is demonstrated by English as the applicant's first language, by a bachelor's or advanced degree from an English language regionally

accredited college or professional school, or by a TOEFL score of 550 or higher, with no subscore below 52. A minimum TOEFL score of 520, with no score below subscore below 52 is acceptable if entering the summer or fall quarter when the Culture and Language Bridge program is available.

Application Procedures

A certificate candidate must:

- seek regular admission status at Seattle University as a fifth-year student by completing an undergraduate application form and meeting standard university deadlines.
- Submit official transcripts from all post-secondary institutions attended, including verification of a bachelor's degree.
- Pay the current application fee.

Other materials may be required:

- If English is not the candidate's native language, the candidate will be required to submit official TOEFL scores before the application is considered.
- Resident aliens are required to submit copies of both sides of their green cards.
- International students who wish to receive an I-20 from Seattle University for obtaining F-1 visas must submit a financial statement with their application.

Application forms are available at the School of Teaching English as a Second Language, and the completed application, official transcripts, and application fee may be submitted there for processing. A \$65 one-time matriculation fee is assessed by the university at the time of the student's first registration.

Certificate Requirements

Initial Certificate in Teaching English as a Second or Foreign Language

Completion of 12 credits of course work from the course sequence EDPD 430 through EDPD 444. EDPD 430:TESL; Theory and Application is required and is a prerequisite for other course work in the certificate program. Students must earn a cumulative grade point average of 3.0 for the 12 credits.

Advanced Certificate in Teaching English as a Second or Foreign Language

Completion of the initial certificate and an additional 12 credits of course work from the course sequence EDPD 430 through EDPD 444. EDPD 440 is required. Students must earn a cumulative grade point average of 3.0 for the 24 credits. Up to six quarter hour credits may be transferred from an accredited institution. Such courses must be at the 400 level or above and the grade earned must be a B or higher. The courses must be similar to the courses listed in the EDPD 430-444 series. An official transcript from the sponsoring institution must be submitted.

Issuance of Certificate

The certificates will be issued by Seattle University in accordance with established policies and procedures of the university. Candidates must make application prior to the established deadline and provide the required evidence.

Education Courses

These courses can be used as electives in a student's program with a School of Education adviser's approval.

ED 380 Preparation for Leadership 2

Designed for undergraduate students who wish to develop and sharpen their understanding of leadership and leadership skills.

ED 413 Programs in Early Childhood Education 3

Models of observation; curriculum and teaching methods for preschool, kindergarten, and primary grade children.

ED 414 Issues in Early Childhood Education 3

Stresses child development theory, research on the effectiveness of ECE programs, and current issues and trends for preschool, kindergarten, and primary grades. Prerequisite: ED 413.

ED 415 Early Education Practicum 3

Field-based curriculum development or action research project in a preschool, kindergarten, or primary grade setting. Prerequisites: permission of ECE coordinator, ED 413, and ED 414.

ED 422 Working with Parents and Professionals 3

This course will focus on skills necessary for teachers to work with parents and professionals. Included are techniques for involving parents in the educational process, counseling approaches, and conferencing practices. Emphasis is placed on working with the parents of exceptional students.

ED 423 Introduction to Classroom Management 3

Provides theory and strategies for managing the K-12 classroom. While a variety of theories will be studied, the systematic use of applied behavior analysis techniques will be a major emphasis of the course.

ED 424 Introduction to Mild Handicaps 3

History and current practices in diagnosis and remediation of students who are learning disabled and mildly handicapped.

ED 425 Introduction to Special Education 3

Survey of characteristics of exceptional students served by special educators. A review of special education practices and federal and state laws guiding special education. Writing individual education programs which lead to effective instruction is also included.

- ED 426 Introduction to Moderate and Severe Handicaps 3**
Examination of characteristics of students with developmental disabilities; emphasis on current trends and practices in their education.
- ED 427 Methods in Special Education 3**
An examination of methods of teaching exceptional students in varied settings. Prerequisite: ED 425 or permission of the instructor.
- ED 428 Language Development 3**
An introduction to critical features of the developmental processes of receptive and expressive language with consideration of diagnosis, curriculum, and method.
- ED 432 Mainstreaming the Exceptional Student 3**
Issues surrounding mainstreaming; methods for working with exceptional students in the regular classroom.
- ED 438 Laboratory Experience - Elementary 1 to 6**
Mandatory CR/E.
- ED 439 Laboratory Experience -Secondary 1 to 6**
Mandatory CR/E.
- ED 450 Nature and Needs of the Gifted 3**
An introductory course to gifted education, including a history of the field, theoretical foundations, administrative arrangements for program organization, definitions, assessment (identification tools, new strategies), developmental issues, special populations (gender, ethnicity, SES, urban/rural, handicapped, extremely gifted, etc.), awareness of attitudes toward the gifted, etc. Will include work on intellectually (academically) gifted as well as creatively gifted individuals.
- ED 451 Gifted Education: Mathematics and Science 3**
Current research exploring the relationship of brain development to types of giftedness will be examined, as will implications of this research and Piaget's work as they relate to curriculum design. Applications to the rationale and methods for mathematics and science instruction for gifted students will be identified and explored. Prerequisite: ED 450.
- ED 460 Computers and Instructional Technology 3
in the Classroom**
An examination of the uses of computers and other forms of media in the classroom.
- ED 491 Special Topics 1 to 5**
ED 492 Special Topics 1 to 5
ED 493 Special Topics 1 to 5

ED 496	Independent Study	1 to 5
ED 497	Independent Study	1 to 5
ED 498	Independent Study	1 to 5

EDTE 430 TESL: Theory and Application 3

Course addresses the general principles of language acquisition and guidelines for teaching English as a second language. The specific classroom application of principles and guidelines will be emphasized through lesson and unit plan development. Required for initial certificate.

EDTE 431 Methods of Language Acquisition 3

Specific methods for teaching language acquisition are reviewed and analyzed. The methods investigated include: English through technology; English through academic content; English through drama; total physical response, the silent way; and English through games. Prerequisites or co-requisite: EDPD 430.

EDTE 432 Teaching Grammar to ESL Students 3

Course is designed to provide the instructor of ESL with tools to facilitate grammar acquisition. Participants will learn grammar rules and develop strategies for instructing ESL students in grammar. Included in Intensive I.

EDTE 433 Materials Selection and Development in TESL 3

Participants will survey existing ESL materials to become familiar with resources for teaching ESL. In addition, participants will explore guidelines regarding teacher-created and student-created materials. Creation of instructional materials is required during the course.

EDTE 434 Developing ESL Literacy 3

Course examines the challenges of providing ESL instruction for students who are in widely varying stages of the literacy continuum, from pre-literacy to academic success. Instructional strategies for increasing literacy levels of ESL students will be addressed, as will the development of instructional materials that are appropriate for the literacy level of the intended ESL student.

EDTE 435 Cultural Variables in TESL 3

Course explores cultural diversity through readings on different cultural groups present in ESL classrooms and classroom visits by representatives of those same groups. Particular emphasis is placed on the influence of culture on language acquisition. Included in Intensive II. Prerequisites: EDPD 430, if taken as component of Intensive II.

EDTE 436 Teaching Content to Students of Limited English Proficiency 3

Course is particularly designed for the teacher of mainstreamed ESL students, as well as other ESL teachers. It emphasizes the merging of content instruction and language development and provides the ESL teacher with text-analysis skills and includes analysis of strategies that provide

supplemental assistance to the special needs student. Prerequisites: EDPD 430, if taken as component of Intensive II.

EDTE 437 Linguistics for the ESL Teacher 3

Course is a survey of general linguistics with attention to use by the ESL classroom teacher. It provides a review of current research regarding linguistics and provides an opportunity for course participants to develop skill in linguistic analysis.

EDTE 438 Testing and Evaluating ESL Students 3

Course reviews testing principles and provides an opportunity for ESL instructors to design tests for all language skills and components. Standardized and instructor-developed instruments will be included.

EDTE 439 Student-Centered Learning in ESL 3

Course focuses on the importance of student-centered learning and ways to implement student-centered strategies in the ESL classroom. An emphasis is placed on use of cooperative learning in the ESL classroom. Included in Intensive II. Prerequisites: EDPD 430, if taken as component of Intensive II.

EDTE 440 Self-Analysis and Improvement in TESL 3

An individualized course which may be taken after EDPD 430 and completion of a supervised teaching experience. Using the supervising teacher's report, School of Teaching ESL Guidelines, and recommended reading, the participant conducts a self-analysis of teaching expertise. Personal growth plans are developed. Prerequisite: EDPD 430.

EDTE 441 Classroom Speech for the Bilingual Instructor 3

This is a pronunciation and speech course for instructors whose first language is not English. Course emphasizes improved pronunciation of English sounds and intonation and provides an analysis of body language and speech delivery.

EDTE 442 Teaching English Pronunciation 3

Course provides participants with skill in identification and analysis of speech difficulties of ESL students. Participants will increase skill in diagnosis and development of improvement strategies for language improvement for ESL students.

EDTE 443 Bilingual Education: Theory and Application 3

Course provides an overview of the theoretical basis of bilingual education; its history in American education, its direction, and methods of instruction in bilingual education. State and federal legislation and resulting requirements for elementary and secondary schools are examined.

EDTE 444 Curriculum and Program Design in ESL 3

Students complete an independent project in curriculum or program development. The project description and requirements are negotiated between the student and the instructor. Students must have completed study in TESL and be involved in ESL curriculum or program development. Prerequisite: permission of instructor.

Matteo Ricci College

Bernard M. Steckler, PhD, Dean

Jodi Kelly, MRE, Assistant 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, and enables 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 (the curriculum of MRC/SP) and in 1977, to Seattle University's initial offering of the three-year university phase (the curriculum of MRC/SU). 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 MRC/SU and certain local Catholic high schools has led to academic partnerships 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 MRC/SU faculty and taught by high school faculty on the high school campus. That curriculum can generate 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; confront, through interdisciplinary investigation, problems, clarifying themes, and a variety of values. Students will be 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 three-year MRC/SP curriculum and are recommended for advancement to MRC/SU.

- Graduates of Seattle Prep who follow the three-year MRC/SP curriculum with successful completion of a fourth year of study on the Prep campus.
- Graduates of John F. Kennedy Memorial High School, O'Dea High School, and Eastside Catholic High School who: 1. meet the university's entrance requirements; 2. earn a grade of C (2.0) or higher in each of two five-credit Seattle University courses that are integrated into a jointly developed "bridge curriculum" offered at the high school campus; and 3. receive recommendations from teachers involved in the bridge curriculum and from the high school administration.

Degree Offered

Bachelor of Arts in Humanities

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.

Bachelor of Arts 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:

HUM courses	60
Fine Arts electives	4 to 5
Science and Technology	5
Social Science Inquiry	5

Choose one of the following areas of concentration:

Concentration in a Single Discipline	40
Concentration in a Pre-professional area	50
Liberal Studies Approved Courses	45 to 50
General Science	45 to 50
Electives (approved by MRC adviser)	remainder

Typical Schedule

Year 4

HUM 100 series courses	30
Fine Arts courses	4-5
Social Science Inquiry	5
Area of concentration and approved courses	5-6

Year 5

HUM 300 series courses	15
Science and Technology course	5
Area of concentration and approved courses	25

Year 6

HUM 400 series	15
Area of concentration and approved courses	30

Please Note: 1. Only courses graded C- (1.7) or higher will fulfill the HUM requirements scheduled for the Year 4 course of study. Only those graded C (2.0) or higher will be accepted in fulfillment of the HUM courses scheduled for the Year 5 and Year 6 courses of study. 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. While such students can bring 10 Seattle University credits earned through a bridge curriculum, the number of credits that must be taken on the Seattle University campus for completion of the MRC degree program remains at 135.

Matteo Ricci College Humanities Courses

HUM 150 Composition: Language and Thought 5

Study and practice in informal logic and argumentation, with emphasis upon the composition of clear, persuasive writing.

HUM 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.

HUM 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 of high school algebra and geometry.

HUM 180 Socio-Cultural Transformations I 5**HUM 181 Socio-Cultural Transformations II 5****HUM 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.

HUM 291 Special Topics 1 to 5**HUM 292 Special Topics 1 to 5****HUM 293 Special Topics 1 to 5****HUM 301 Perspectives on the Person I 5****HUM 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.

HUM 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 HUM 280)

HUM 400 MRC Seminar 5**HUM 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, HUM 402.

HUM 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 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.

Degree Offered

Bachelor of Science in Nursing

Graduate Degree

Master of Science in Nursing

(See *Graduate Bulletin of Information* for details)

Accreditation

National League for Nursing

Washington State Board for Nursing

Programs of Study

The School of Nursing offers an undergraduate program in nursing for basic students with no previous education in nursing and for the registered nurse student seeking the bachelor of science in nursing degree. See the *Graduate Bulletin of Information* for details on the master of science in nursing program.

Admission Requirements

All entering students from high schools or accredited institutions of higher learning 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. Additional requirements for registered nurses are:

- Graduation from a school of nursing accredited by the National League of Nursing
- Current nursing licensure in the state of Washington
- Recommendation from the director of the nursing program and from employer

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 protection, medical insurance coverage, and other state and federal requirements. Students are responsible for these expenses as well as uniforms, equipment, and transportation costs to, from, and while in cooperating teaching units. 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/evaluation. Fees associated with this process 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 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 Treatment Center, Mt. St. Vincent's, Northwest Hospital, Overlake Medical Center, Pacific Medical Center, Pike Market Medical Clinic, 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, 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. A 2.5 cumulative grade point average is required at the time the degree is granted. All major program requirements, including major prerequisites, must be graded C (2.0) or better. Program requirements include:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
Choose one of the following two courses:		5
HS 120	Introduction to Western Civilization	
HS 121	Studies of Modern Civilization	

EN 120	Masterpieces of Literature	5
MT	101 or 107 or above*	5
Lab Science	(CH 101 required)*	5
PL 220	Philosophy of the Human Person	5
PSY 120	Introductory Psychology*	5
Choose one of the following two courses:		5
Social Science II (not psychology)		
FA 120	Experiencing the Arts	
Theology and Religious Studies Phase II (200-299)		5
PL 352	Health Care Ethics	5
Theology and Religious Studies Phase III (300-399)		5
N 422	Senior Synthesis	3
N 480	Interdisciplinary Core: The Changing Family	3

*Also major/program prerequisite; C (2.0) minimum grade allowed.
See detailed core curriculum information beginning on page 55.

II. Major Requirements

Prerequisites:

CH 102	Introductory Organic and Biochemistry	5
BL 200	Anatomy and Physiology I	5
BL 210	Anatomy and Physiology II	5
BL 220	Microbiology	5
PSY 322	Psychology of Growth and Development	5

Nursing sequence:

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

Bachelor of Science in Nursing for Registered Nurse Students

In order to earn the bachelor of science in nursing, registered nurse students must complete, either at Seattle University or in transfer, a minimum of 180 quarter credits. A 2.5 cumulative grade point average is required at the time the degree is granted. All major program requirements, including major prerequisites, must be graded C (2.0) or better. Program requirements include:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
Choose one of the following two courses:		5
HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	
EN 120	Masterpieces of Literature	5
MT	101 or 107 or above*	5
CH 101	Introductory General Chemistry*	5
PL 220	Philosophy of the Human Person	5
PSY 120	Introductory Psychology*	5
Choose one of the following two courses:		5
Social Science II (not psychology)		
FA 120	Experiencing the Arts	
Theology and Religious Studies Phase II (200-299)		5
PL 352	Health Care Ethics	5
Theology and Religious Studies Phase III (300-399)		5
N 422	Senior Synthesis	3
N 480	Interdisciplinary Core: The Changing Family	3

*Also major/program prerequisite; C (2.0) minimum grade allowed.

II. Major Requirements

Prerequisites:

CH 102	Introductory Organic and Biochemistry	5
BL 200	Anatomy and Physiology I	5
BL 210	Anatomy and Physiology II	5
BL 220	Microbiology	5
PSY 322	Psychology of Growth and Development	5

Nursing sequence:

N 310	Current Perspectives in Professional Nursing	5
N 321	Pathophysiology I	3
N 322	Pathophysiology II	3
N 385	Clinical Decision Making	5
N 404	Research in Nursing Practice	3
N 412	Community Health Nursing	3

N 413	Community Health Nursing-Practice	4
N 423	Transition to Professional Nursing Practice	8
Required courses with the option for advanced placement by examination:		
N 302	Health Assessment	5
N 303	Basic Nursing Interventions	3
N 318	Nursing Care of Ill Adults I	3
N 319	Nursing Care of Ill Adults I-Practice	4
N 320	Pharmacological Principles Basic to Nursing Practice	2
N 323	Concepts in Gerontological Nursing	2
N 328	Nursing Care of Ill Adults II	4
N 329	Nursing Care of Ill Adults II-Practice	6
N 338	Nursing Care of Ill Children	3
N 339	Nursing Care of Ill Children-Practice	4
N 348	Psychiatric Mental Health Nursing	3
N 349	Psychiatric Mental Health Nursing-Practice	4
N 410	Nursing Care of the Childbearing Family	3
N 411	Nursing Care of the Childbearing Family-Practice	4

Please Note: Prospective students are encouraged to work with the coordinator of the RN-B program early in the program to design a plan of study that meets both individual needs and program requirements. All RNs must complete prerequisite requirements as well as transfer core requirements.

Nursing Courses

N 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. Pre- or corequisites: N 301, N 302. (spring, fall)

N 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, PSY 322. (spring)

N 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: BL 200, BL 210. Pre- or corequisite: N 200, N 301. (spring, fall)

- N 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, BL 220. Corequisites: N 318, N 319, N 320. (fall, winter) Must be taken CR/E.
- N 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)
- N 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; BL 220. Prerequisites or corequisite: N 303, N 320, N 321. (fall, winter)
- N 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 N 318; experiences with ill clients in a variety of clinical settings. Prerequisites: Same as for N 318. Corequisite N 318.
- N 320 Pharmacological Principles Basic To Nursing Practice 2**
Professional nursing responsibilities in assessing, planning, and evaluating pharmacological interventions. Prerequisites: CH 102, core math; Nursing Level 1 or permission. (fall, winter)
- N 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: BL 200, BL 210. (fall, spring)
- N 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. (fall, winter)
- N 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)

- N 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: N 303, N 318, N 319, N 320, N 321. Prerequisite or corequisite N 322. Corequisite: N 329. (fall, winter, spring)
- N 329 Nursing Care of Ill Adults II - Practice 6**
 Clinical practice to promote application of concepts, principles, and processes from N 328; experiences with individual clients in a variety of acute care settings. Prerequisites: same as for N 328; corequisite: N 328.
- N 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: N 303, N 318, N 319, N 320, N 321. Prerequisite or corequisite: N 322; corequisite: N 339. (fall, winter, spring)
- N 339 Nursing Care of Ill Children - Practice 4**
 Clinical practice to promote application of concepts, principles, and processes from N 338; experiences with individual clients in a variety of clinical settings. Prerequisites: Same as for N 338; Corequisite: N 338.
- N 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: N 303, N 318, N 319, N 320, N 321; pre or corequisite: N322. Corequisite: N 349. (fall, winter, spring)
- N 349 Psychiatric Mental Health Nursing - Practice 4**
 Clinical practice to promote application of concepts, principles, and processes from N 348; experiences with individuals and groups in a variety of clinical settings. Prerequisites: Same as for N 348; Corequisite: N 348.
- N 372 Issues in Women's Health: A Wellness Perspective 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.
- N 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: PSY 322, N 310, and NLN Mobility II Examinations. (winter)

- | | | |
|--------------|---|---------------|
| N 391 | Special Topics | 1 to 5 |
| N 392 | Special Topics | 1 to 5 |
| N 393 | Special Topics | 1 to 5 |
| N 396 | Independent Study | 2 to 5 |
| N 397 | Independent Study | 2 to 5 |
| N 398 | Independent Study | 2 to 5 |
| N 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) | |
| N 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: N 411. (winter, spring; also fall 1996) | |
| N 411 | Nursing Care of the Childbearing Family - Practice | 4 |
| | Clinical practice to promote application of concepts, principles and processes from N 410; experiences with individuals and families in a variety of clinical settings. Prerequisites: Same as for N 410; Corequisite: N 410. | |
| N 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, N 480. Pre- or corequisite N 410, 411; Corequisite: N 413. (winter, spring; also fall 1996) | |
| N 413 | Community Health Nursing - Practice | 4 |
| | Clinical practice to promote application of concepts, principles, and processes from N 412; experiences with clients, families, and groups in community settings. Prerequisites: Same as for N 412; Corequisite: N 412. | |
| N 414 | Nursing Care of Critically Ill Clients | 3 |
| | Elective course in nursing (not a requirement for the major). Nursing process approach to the care of critically ill clients. Analysis of selected illness situations as base for understanding care of critically ill clients. Prerequisites: All nursing Level 2 or RN with current license. (winter or spring) | |
| N 420 | Drugs and Nursing Implications: A Case Study Approach | 2 |
| | Elective course in nursing (not a requirement for the major). 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)

N 422 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)

N 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: N 422 (winter, spring)

N 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)

N 481 Interdisciplinary Core Course Stress, Survival, and Adaptation 3

Elective course in nursing (not a requirement for the major). 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 winter)

N 491 Special Topics 1 to 5

N 492 Special Topics 1 to 5

N 493 Special Topics 1 to 5

N 496 Independent Study 2 to 5

N 497 Independent Study 2 to 5

N 498 Independent Study 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 major in environmental engineering

Bachelor of Science in Computer Science

Bachelor of Science in Diagnostic Ultrasound

Bachelor of Science in Electrical Engineering

Bachelor of Science in General Science

Bachelor of Science in Mathematics

Bachelor of Science in Mechanical Engineering

Bachelor of Science in Mechanical Engineering with a major 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 either pursue a disciplinary degree and use elective courses to suit their needs or 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. The three engineering degrees require 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, Chairperson

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, pre dental, 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 180 quarter credits with a cumulative and major/program grade point average of 2.0, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
Choose one of the following two courses:		5
HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	
EN 120	Masterpieces of Literature	5
FA 120	Experiencing the Arts	5
PL 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 BL 494 and 495)	

See detailed core curriculum information beginning on page 55.

II. Major Requirements

Fifty-six credits in biology, including:

BL 165	General Biology I	5
BL 166	General Biology II	5
BL 167	General Biology III	5
BL 240	Genetics	4
BL 470	General Ecology	5
BL 485	Cell Physiology	5
BL	Electives (not introductory biology)	10

Senior Synthesis:

BL 494	Independent Experience	2 to 4
BL 495	Seminar	1

Choose one of the following two courses: 5

BL 235	Invertebrate Zoology
BL 252	Taxonomy of Flowering Plants

Choose one of the following three courses: 4 or 5

BL 325	Comparative Anatomy of the Vertebrates (5)
BL 330	Comparative Vertebrate Histology (5)
BL 361	Ultrastructure (4)

Choose one of the following two courses: 5

BL 385	Plant Physiology
BL 388	Animal Physiology

Please note: One course of plant science beyond the 165-167 series is required.

III. Other Program Requirements

CH 121	General Chemistry I	4
CH 131	General Chemistry Lab I	1
CH 122	General Chemistry II	4
CH 132	General Chemistry Lab II	1
CH 123	General Chemistry III	4
CH 133	General Chemistry Lab III	1

Choose organic chemistry sequence a. or b.: 15 or 16

a. CH 335	Organic Chemistry I (3)
CH 345	Organic Chemistry Lab I (2)
CH 336	Organic Chemistry II (3)
CH 346	Organic Chemistry Lab II (2)
CH 337	Organic Chemistry III (4)
CH 347	Organic Chemistry Lab III (2)

b. CH 219	Quantitative Analysis (5)	
CH 231	Fundamental Organic Chemistry I (4)	
CH 233	Fundamental Organic Chemistry Lab I (1)	
CH 232	Fundamental Organic Chemistry II (4)	
CH 234	Fundamental Organic Chemistry I Lab II (1)	
Choose group a. or b.:		10
a. MT 131	Calculus for Life Sciences	
PSY 303	Statistics and Research Methods	
PSY 304	Lab for Statistics and Research Methods	
b. MT 134	Calculus and Analytic Geometry I	
MT 135	Calculus and Analytic Geometry II	
Choose physics series a. or b.:		15
a. PH 105	Mechanics and Sound	
PH 106	Electricity, Magnetism, and Thermodynamics	
PH 107	Survey of Modern Physics	
b. PH 200	Mechanics	
PH 201	Electricity and Magnetism	
PH 202	Waves, Optics, and Thermodynamics	

Minor in Biology

In order to earn a minor in biology, students must complete 30 credits in biology, including:

BL 165	General Biology I	5
BL 166	General Biology II	5
BL 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 page 46.

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

BL 101	Principles of Biology	5
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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. (fall, spring)

BL 165	General Biology I	5
BL 166	General Biology II	5
BL 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; animal behavior; ecology. Four lecture and three laboratory hours per week. Prerequisite: high school algebra and chemistry. BL 165 prerequisite to BL 166 and 167. (I-fall, winter; II-winter; III-spring)

BL 200	Anatomy and Physiology I	5
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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.

BL 210	Anatomy and Physiology II	5
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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: BL 200. (winter)

BL 220	Microbiology	5
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Introduction to microbiology, emphasizing health-related aspects. Four lecture and three laboratory hours per week. Credits not applicable for biology major. Prerequisite: BL 210. (winter)

BL 235	Invertebrate Zoology	5
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Survey of invertebrate phyla including their anatomy, morphology, taxonomy, and ecology. Four lecture and three hours laboratory per week. One weekend field trip. Prerequisites: BL 165, 166, 167. (spring, even years)

BL 240	Genetics	4
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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: BL 165, 166, and 167, or permission of instructor. (winter)

BL 252	Taxonomy of Flowering Plants	5
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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: BL 165, 166. (spring, odd years) (formerly BL 375)

- BL 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: BL 165, BL 166, BL 167, BL 235. (spring, odd years) (formerly BL 375)
- BL 291 Special Topics 1 to 5**
BL 292 Special Topics 1 to 5
BL 293 Special Topics 1 to 5
- BL 296 Independent Study 1 to 5**
BL 297 Independent Study 1 to 5
BL 298 Independent Study 1 to 5
- BL 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: BL 210 or 388 or 485. (fall)
- BL 310 Comparative Vertebrate Embryology 5**
Early development of selected vertebrates with consideration of gametogenesis, fertilization, gastrulation, cell differentiation, and organogenesis. Four lecture and three laboratory hours per week. Prerequisites: BL 165, 166, 167. (spring)
- BL 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 and development of structures within individuals. Prerequisites: BL 165, 166, 167. (winter)
- BL 330 Comparative Vertebrate Histology 5**
Study of the fundamental body tissues. Three lecture and four laboratory hours per week. Recommended BL 310 or 325. (winter)
- BL 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: BL 165 and permission of instructor. (winter)
- BL 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 manage-

ment; 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: BL 165, 166, 167; CH 335/345. (spring, even years)

BL 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, including nerve and muscle function, hormonal regulation, osmoregulation, digestion, and thermoregulation. Four lecture and three laboratory hours per week. Prerequisites: BL 165, 166, 167, CH 335, 336, 337. (fall)

BL 391 Special Topics 1 to 5

BL 392 Special Topics 1 to 5

BL 393 Special Topics 1 to 5

BL 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: BL 165 or 200/210; CH 102 or organic chemistry. (spring, even years)

BL 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: BL 220 or 300; CH 102 or organic chemistry (spring, odd years)

BL 440 Molecular Genetics 4

Study of heredity at the molecular level, including gene structure, transcription, mutation, DNA replication, recombinant DNA methodologies and their applications. Three lectures and one laboratory per week. Prerequisites: BL 165, CH 347, and BL 240 or CH 450. (winter)

BL 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: MT 111. Recommended: BL 235, BL 252, PSY 201. (fall) (formerly BL 370)

- BL 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: BL 165, 166, 167; CH 337/347 or 232. Recommended: MT 131. (spring)
- BL 491 Special Topics 1 to 5**
BL 492 Special Topics 1 to 5
BL 493 Special Topics 1 to 5
- BL 494 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)
- BL 495 Biology Senior Synthesis: Seminar 1**
 Follows BL 494. Each student orally presents the results of his/her independent experience to students and faculty in the Biology Department. Prerequisites: senior standing, BL 494. (spring)
- BL 496 Independent Study 1 to 5**
BL 497 Independent Study 1 to 5
BL 498 Independent Study 1 to 5
- BL 499 Undergraduate Research 1 to 5**
 Literature and laboratory investigation of a basic research problem. Preparation of a written report. Prerequisite: permission of chair. (fall, winter, spring)

Chemistry

Lawrence C. Thomas, PhD, Chairperson

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 CH 415, CH 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 180 quarter credits with a cumulative grade point average of 2.0, including the following:

I. Core Curriculum Requirements

- | | | |
|--------|--|---|
| EN 110 | Freshman English | 5 |
| PL 110 | Introduction to Philosophy and Critical Thinking | 5 |

Choose one of the following two courses	5
HS 120 Introduction to Western Civilization	
HS 121 Studies in Modern Civilization	
EN 120 Masterpieces of Literature	5
FA 120 Experiencing the Arts	5
PL 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 beginning on page 55.

II. Major Program Requirements

Forty-seven credits in chemistry, including:

CH 121 General Chemistry I	4
CH 131 General Chemistry Lab I	1
CH 122 General Chemistry II	4
CH 132 General Chemistry Lab II	1
CH 123 General Chemistry III	4
CH 133 General Chemistry Lab III	1
CH 219 Quantitative Analysis	5
CH 231 Fundamental Organic Chemistry I	4
CH 233 Fundamental Organic Chemistry Lab I	2
CH 232 Fundamental Organic Chemistry II	4
CH 234 Fundamental Organic Chemistry Lab II	2
CH 361 Physical Chemistry II	3
CH 363 Physical Chemistry Lab I	2

Choose 10 credits from among the following electives..... 10

CH 260 Laboratory Safety (2)	
CH 326 Instrumental Analysis (5)	
CH 360 Physical Chemistry I (3)	
CH 362 Physical Chemistry III (3)	
CH 364 Physical Chemistry Lab II (2)	
CH 415 Advanced Inorganic Chemistry (3)	
CH 425 Synthetic Inorganic Chemistry Lab (2)	
CH 436 Advanced Organic Chemistry (3)	
CH 450 Biochemistry I (4)	
CH 452 Biochemistry II (4)	
CH 456 Biochemistry III (3)	
CH 499 Undergraduate Research (1 to 6)	

and special topics or independent study courses.

III. Other Program Requirements

MT 134	Calculus and Analytic Geometry I	5
MT 135	Calculus and Analytic Geometry II	5
MT	Elective	5
Choose physics series a. or b.:		15
a. PH 105	Mechanics and Sound	
PH 106	Electricity, Magnetism, and Thermodynamics	
PH 107	Survey of Modern Physics	
b. PH 200	Mechanics	
PH 201	Electricity and Magnetism	
PH 202	Waves, Optics, and Thermodynamics	

Bachelor of Science in Chemistry

In order to earn the bachelor of science in chemistry degree, students must complete 180 quarter credits with a cumulative grade point average of 2.0, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
Choose one of the following two courses		5
HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	
EN 120	Masterpieces of Literature	5
FA 120	Experiencing the Arts	5
PL 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 beginning on page 55.

II. Major Program Requirements

Sixty credits in chemistry, including:

CH 121	General Chemistry I	4
CH 131	General Chemistry Lab I	1
CH 122	General Chemistry II	4
CH 132	General Chemistry Lab II	1
CH 123	General Chemistry III	4
CH 133	General Chemistry Lab III	1
CH 219	Quantitative Analysis	5

CH 326	Instrumental Analysis	5
CH 335	Organic Chemistry I	3
CH 345	Organic Chemistry Lab I	2
CH 336	Organic Chemistry II	3
CH 346	Organic Chemistry Lab II	2
CH 337	Organic Chemistry III	4
CH 347	Organic Chemistry Lab III	2
CH 360	Physical Chemistry I	3
CH 363	Physical Chemistry Lab I	2
CH 361	Physical Chemistry II	3
CH 364	Physical Chemistry Lab II	2
CH 362	Physical Chemistry III	3
CH	Electives	6

III. Other Program Requirements

MT 134	Calculus and Analytic Geometry I	5
MT 135	Calculus and Analytic Geometry II	5
MT 136	Calculus and Analytic Geometry III	5
PH 200	Mechanics	5
PH 201	Electricity and Magnetism	5
PH 202	Waves, Optics, and Thermodynamics	5

Choose one of the following three courses: 3 or 5

CSC 103	Introduction to Computers and Applications (5)	
CSC 104	Introduction to Computers and Applications (Macintosh) (5)	
MT 232	Multivariable Calculus (3)	

Please Note: 1. A student is eligible for certification of the degree by the American Chemical Society if CH 415, CH 425, and seven additional credits of approved advanced work in chemistry are taken. 2. For students planning graduate work, MT 232, MT 233, MT 234, PH 204, and PH 205 are strongly recommended as electives.

Bachelor of Science in Biochemistry

In order to earn the bachelor of science in biochemistry degree, students must complete 180 quarter credits with a cumulative grade point average of 2.0, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5

Choose one of the following two courses: 5

HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	

EN 120	Masterpieces of Literature	5
FA 120	Experiencing the Arts	5
PL 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 beginning on page 55.

II. Major Requirements

Sixty credits of chemistry, including:

CH 121	General Chemistry I	4
CH 131	General Chemistry Lab I	1
CH 122	General Chemistry II	4
CH 132	General Chemistry Lab II	1
CH 123	General Chemistry III	4
CH 133	General Chemistry Lab III	1
CH 219	Quantitative Analysis	5
CH 335	Organic Chemistry I	3
CH 345	Organic Chemistry Lab I	2
CH 336	Organic Chemistry II	3
CH 346	Organic Chemistry Lab II	2
CH 337	Organic Chemistry III	4
CH 347	Organic Chemistry Lab III	2
CH 361	Physical Chemistry II	3
CH 363	Physical Chemistry Lab I	2
CH 436	Advanced Organic Chemistry	3
CH 450	Biochemistry I	4
CH 452	Biochemistry II	4
CH 456	Biochemistry III	3

Choose option a. or b.:

a. CH 326	Instrumental Analysis (5)	5
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b. CH 362	Physical Chemistry III (3)	
CH 364	Physical Chemistry Lab II (2)	

III. Other Program Requirements

BL 165	General Biology I	5
BL	Approved Electives (courses numbered 300-400)	10
MT 134	Calculus I	5
MT 135	Calculus II	5
MT 136	Calculus III	5
PH 200	Mechanics	5
PH 201	Electricity and Magnetism	5
PH 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 180 quarter credits with a cumulative grade point average of 2.0, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
Choose one of the following two courses		5
HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	
EN 120	Masterpieces of Literature	5
PL 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 beginning on page 55.

II. Major Program Requirements

Forty-one credits, including:

CH 121	General Chemistry I	4
CH 131	General Chemistry Lab I	1
CH 122	General Chemistry II	4
CH 132	General Chemistry Lab II	1
CH 123	General Chemistry III	4
CH 133	General Chemistry Lab III	1
CH 219	Quantitative Analysis	5
CH 231	Fundamental Organic Chemistry I	4
CH 232	Fundamental Organic Chemistry II	4
CH 233	Fundamental Organic Chemistry Lab I	2
CH 234	Fundamental Organic Chemistry Lab II	2
CH 450	Biochemistry I	4
CH 452	Biochemistry II	4
CH	Electives	1

III. Other Program Requirements

Choose two of the following three courses:

BL 165	General Biology I	
BL 166	General Biology II	
BL 167	General Biology III	
BL 200	Anatomy and Physiology I	5
BL 210	Anatomy and Physiology II	5

Choose one of the following two courses: 5

BL 220	Microbiology	
BL 300	Microbiology	
BL 240	Genetics	4
BL 415	Fundamentals of Immunology	3
BL 485	Cell Physiology	5
BL	Electives	4
MT 131	Calculus for Life Sciences	5
PH 105	Mechanics and Sound	5
PH 106	Electricity, Magnetism, and Thermodynamics	5

Choose one of the following two courses 5

CSC 103	Introduction to Computers and Applications
CSC 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:

CH 121	General Chemistry I	4
CH 131	General Chemistry Lab I	1
CH 122	General Chemistry II	4
CH 132	General Chemistry Lab II	1
CH 123	General Chemistry III	4
CH 133	General Chemistry Lab III	1
CH 219	Quantitative Analysis	5
	Organic chemistry (200 level or above)	10
	Additional chemistry elective	5

See policy for minors on page 46.

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: CH 231/335; 232/336; 233/345; 234/346. A student who completes CH 231 with a grade of B or better may enroll in CH 336 with the permission of the instructor.

CH 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. (fall, winter)

CH 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: CH 101 or equivalent. (winter, spring, summer)

CH 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 CH 101 or CH 121. Four lecture hours and one three-hour lab per week. (fall, spring)

CH 121 General Chemistry I 4

CH 122 General Chemistry II 4

CH 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: CH 101 or 110 or high school chemistry for CH 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)

CH 131 General Chemistry Lab I 1

CH 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: CH 131 for 132. Corequisites: CH 121 for 131; 122 for 132. (131, fall, winter; 132, winter, spring)

CH 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: CH 123; Prerequisite: CH 132. (spring, summer)

CH 219 Quantitative Analysis 5

Theory, methods, and techniques of gravimetric, volumetric, electroanalytical, and chromatographic procedures in quantitative analysis; introductory statistics. Two lecture and eight laboratory hours per week. Prerequisites: CH 123 and 133. (fall, winter)

CH 231 Fundamental Organic Chemistry I 4

CH 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: CH 123, 133 for 231; 231 for 232. (231 winter; 232 spring) (Not recommended for premed students)

CH 233 Fundamental Organic Chemistry Lab I 2**CH 234 Fundamental Organic Chemistry Lab II 2**

Techniques used in synthesis, isolation, and identification of organic compounds. Each is four laboratory hours per week. CH 231 is the corequisite for 233; CH 232 for 234; CH 233 is the prerequisite for 234. (233 winter; 234 spring)

CH 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 organic chemistry. (spring, summer)

CH 291 Special Topics 1 to 5**CH 292 Special Topics 1 to 5****CH 293 Special Topics 1 to 5****CH 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 including discussion of principles. Prerequisites: CH 219, 361, 363. (spring)

CH 335 Organic Chemistry I 3**CH 336 Organic Chemistry II 3****CH 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. Three lecture hours per week for CH 335 and CH 336, four hours per week for CH 337. Prerequisites: CH 123 for CH 335, CH 335 (with C or better) for CH 336, CH 336 (with C or better) for CH 337. (CH 335 fall, CH 336 winter, CH 337 spring)

CH 345 Organic Chemistry Lab I 2

Theory and practice of laboratory techniques; experimental study of properties of organic compounds; introduction to organic synthesis. Five hours per week. Corequisite: CH 335 (fall)

CH 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. Five hours per week. Prerequisite: CH 345; Corequisite: CH 336. (winter)

CH 347 Organic Chemistry Lab III 2

Instrumental and classical qualitative techniques applied to the identification of organic compounds. Six hours per week. Prerequisite: CH 346 (or 234) Corequisite: CH 337 (or prerequisite 232).

CH 360	Physical Chemistry I	3
CH 361	Physical Chemistry II	3
CH 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: CH 123, CH 133, MT 136, and one year of physics for CH 360 and CH 361; CH 361 for CH 362. (I-fall, II-fall, III-winter) (CH 360 alternate years)

CH 363	Physical Chemistry Laboratory I	2
CH 364	Physical Chemistry Laboratory II	2

Quantitative measurements of physical chemical phenomena, detailed data analysis, evaluation. Four laboratory hours per week. Prerequisites: CH 219 for CH 363; CH 363 for CH 364. CH 361 is prerequisite for CH 363; CH 362 is prerequisite for CH 364. (I-winter; II-spring)

CH 391	Special Topics	1 to 5
CH 392	Special Topics	1 to 5
CH 393	Special Topics	1 to 5

CH 396	Independent Study	1 to 5
CH 397	Independent Study	1 to 5
CH 398	Independent Study	1 to 5

CH 415	Advanced Inorganic Chemistry	3
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Advanced topics in inorganic chemistry, with particular attention to the transition metals and their compounds. Prerequisites: CH 360 and CH 361. (winter)

CH 425	Synthetic Inorganic Chemistry Laboratory	2
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Synthesis and characterization of inorganic compounds involving a variety of laboratory techniques and instrumentation, including: high temperature, vacuum line or inert atmosphere and nonaqueous solvent syntheses and characterization by FTNMR, FTIR, conductivity, GC, magnetic susceptibility and UV-Vis spectroscopy. Five laboratory hours per week. Prerequisites: CH 360 and CH 415. (spring)

CH 436	Advanced Organic Chemistry	3
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Advanced topics in organic chemistry. Directed reading and/or lectures. Prerequisite: One year physical and one year organic chemistry. (spring)

CH 450	Biochemistry I	4
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Structure and function of amino acids, proteins, lipids, nucleic acids. Mechanism of action of enzymes, bioenergetics, oxidative phosphorylation, and introduction to metabolism. Three lecture and four laboratory hours per week. Prerequisites: CH 232, CH 234 or CH 337, CH 347. Recommended: CH 219 (fall)

- CH 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: BL 165 (or permission of chair), CH 450 (winter)
- CH 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: CH 450 (spring)
- CH 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.
- CH 480 Interdisciplinary Core Course 3 to 5**
 Title and content change each term.
- CH 490 Senior Synthesis 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, or permission of chair (fall, winter, spring, summer)
- CH 491 Special Topics 1 to 5**
CH 492 Special Topics 1 to 5
CH 493 Special Topics 1 to 5
 Directed reading and/or lecture at an advanced level.
- CH 496 Independent Study 1 to 5**
CH 497 Independent Study 1 to 5
CH 498 Independent Study 1 to 5
- CH 499 Undergraduate Research 1 to 6**
 Literature and laboratory investigation of a basic research problem. Four laboratory hours per week per credit.

Civil and Environmental Engineering

Rolf Skrinde, PhD, Chairperson

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/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 EN 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 192 credits 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.

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
Choose one of the following two courses:		5
HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	
EN 120	Masterpieces of Literature	5
PL 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 beginning on page 55.

II. Major Requirements

Seventy-five credits including:

CEE 221	Strength of Materials I	4
CEE 222	Strength of Materials Lab I	2
CEE 311	Engineering Measurements	5
CEE 323	Strength of Materials II	4
CEE 324	Strength of Materials Lab II	2
CEE 331	Fluid Mechanics	4
CEE 335	Applied Hydraulics	4
CEE 337	Fluids Lab	2
CEE 351	Engineering Geology	3
CEE 353	Soil Mechanics	3
CEE 371	Water Resources I-Surface Water Hydrology	3
CEE 402	Engineering Economy	3
CEE 445	Structural Mechanics	5
CEE 473	Environmental Engineering I-Fundamentals	5
CEE 487	Engineering Design I	4
CEE 488	Engineering Design II	4
CEE 489	Engineering Design III	4
Engineering electives (400 level)		14

III. Other Program Requirements

CH 121	General Chemistry I	4
CH 131	General Chemistry Lab I	1
MME 105	Engineering Graphics and Design	3

MME 107	Introduction to Microcomputer Applications	2
MME 210	Statics	5
MME 230	Dynamics	5
MME 321	Thermodynamics	4
MT 134	Calculus and Analytic Geometry I	5
MT 135	Calculus and Analytic Geometry II	5
MT 136	Calculus and Analytic Geometry III	5
MT 232	Multivariable Calculus	3
MT 233	Linear Algebra	3
MT 234	Differential Equations	4
PH 200	Mechanics	5
PH 201	Electricity and Magnetism	5
PH 202	Waves, Optics, and Thermodynamics	5
	Science elective	5
	Choose one of the following two courses	3
CSC 230	FORTRAN for Engineers	
CSC 231	C Programing for Engineers	

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 Environmental Engineering

In order to earn the bachelor of science in civil engineering degree with a major 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
	Choose one of the following two courses:	5
HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	
EN 120	Masterpieces of Literature	5
PL 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

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 beginning on page 55.

II. Major Requirements

Seventy credits, including:

CEE 221	Strength of Materials I	4
CEE 222	Strength of Materials Lab I	2
CEE 331	Fluid Mechanics	4
CEE 335	Applied Hydraulics	4
CEE 337	Fluids Lab	2
CEE 341	Biological Principles for Environmental Engineers	4
CEE 342	Environmental Engineering Chemistry	4
CEE 351	Engineering Geology	3
CEE 353	Soil Mechanics	3
CEE 371	Water Resources I-Surface Water Hydrology	3
CEE 402	Engineering Economy	3
CEE 473	Environmental Engineering I-Fundamentals	5
CEE 474	Environmental Engineering II- Water Supply and Waste Water Engineering	5
CEE 475	Solid and Hazardous Waste Engineering	5
CEE 476	Environmental Law and Impact Studies	3
CEE 487	Engineering Design I	4
CEE 488	Engineering Design II	4
CEE 489	Engineering Design III	4

Choose one of the following three courses:

CEE 343	Air Pollution Engineering	4
CEE 455	Foundation Design	
CEE 472	Water Resources II-Ground Water System	

III. Other Program Requirements

CH 121	General Chemistry I	4
CH 131	General Chemistry Lab I	1
CH 122	General Chemistry II	4
CH 132	General Chemistry Lab II	1
MME 105	Engineering Graphics and Design	3
MME 107	Introduction to Microcomputer Applications	2
MME 210	Statics	5
MME 230	Dynamics	5
MME 321	Thermodynamics	4
MT 134	Calculus and Analytic Geometry I	5
MT 135	Calculus and Analytic Geometry II	5
MT 136	Calculus and Analytic Geometry III	5
MT 232	Multivariable Calculus	3
MT 233	Linear Algebra	3
MT 234	Differential Equations	4
PH 200	Mechanics	5
PH 201	Electricity and Magnetism	5
PH 202	Waves, Optics, and Thermodynamics	5

Choose one of the following two courses

CSC 230	FORTTRAN for Engineers	3
CSC 231	C Programming for Engineers	

Choose one of the following two courses: 5

BL 101 Principles of Biology

BL 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

CEE 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: MME 230, MT 232. (fall, spring)

CEE 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: CEE 221. (fall, spring)

CEE 291 Special Topics 1 to 5

CEE 292 Special Topics 1 to 5

CEE 293 Special Topics 1 to 5

CEE 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: MT 111, MT 115, MME 105. (spring)

CEE 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: CEE 221, MT 234. (winter)

CEE 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 corequisite: CEE 323. (winter)

- CEE 331 Fluid Mechanics 4**
Fluid statics and dynamics. Topics include fluid properties, continuity equation, energy equation, resistance phenomena, and hydropower. Pre- or corequisites: MME 230, MT 234. (fall, winter)
- CEE 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: CEE 331. (winter)
- CEE 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: CEE 331. (winter, spring)
- CEE 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: BL 101 or BL 165 or equivalent. (fall)
- CEE 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: CH 121, CH 131, CH 122, CH 132, or equivalent. (winter)
- CEE 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)
- CEE 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.
- CEE 353 Soil Mechanics 3**
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: CEE 221, CEE 222. (winter)

- CEE 371 Water Resources I - Engineering Hydrology 3**
 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: CEE 331. (spring)
- CEE 391 Special Topics 1 to 5**
CEE 392 Special Topics 1 to 5
CEE 393 Special Topics 1 to 5
- CEE 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)
- CEE 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.
- CEE 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: CEE 323. (fall)
- CEE 447 Structural Design I 5**
CEE 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: CEE 445. (I. winter, II. spring)
- CEE 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: CEE 353.
- CEE 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.
- CEE 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: CEE 461.

- CEE 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: CEE 463.
- CEE 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: CEE 465.
- CEE 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: CEE 371. (fall)
- CEE 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: CH 121, CH 131. (fall)
- CEE 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: CEE 473. (winter)
- CEE 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: CEE 473, CEE 474, or permission of instructor. (spring)
- CEE 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)
- CEE 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.

- CEE 481 Cold Regions Engineering 4**
Engineering considerations in design of structures, utilities, and other facilities under cold climate conditions. Prerequisite: Senior civil engineering standing.
- CEE 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: CEE 402. (fall)
- CEE 488 Engineering Design II 4**
CEE 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. Prerequisite: CEE 487 for CEE 488; CEE 488 for CEE 489. (CEE 488, winter; CEE 489, spring)
- CEE 491 Special Topics 1 to 5**
CEE 492 Special Topics 1 to 5
CEE 493 Special Topics 1 to 5
- CEE 496 Independent Study 1 to 5**
CEE 497 Independent Study 1 to 5
CEE 498 Independent Study 1 to 5

Computer Science/Software Engineering

Ihsin Phillips, PhD, Director, Undergraduate Program

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, incorporating software engineering techniques. The program provides solid foundations for understanding the changing role 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 the bachelor of science in computer science and bachelor of arts degrees. The rigorous professional and technical education leading to the bachelor of science in computer science degree prepares students for a career in software development or for graduate study in computer science. The year-long senior project requirement gives students practical experience in building substantial software systems, usually with industrial sponsors. It provides an opportunity to apply principles learned throughout the curriculum, especially providing opportunities for writing, speaking, and working in teams; that is, it functions as a capstone in the curriculum.

The bachelor of arts degree program prepares students for professional careers involving computer applications in areas such as business or education. In addition to the degree programs, a minor is available, as are computer literacy courses.

Degrees Offered

Bachelor of Arts

Bachelor of Science in Computer Science

Master of Software Engineering—See *Graduate Bulletin of Information*

Major Offered

Computer Science

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 major program requirements (CSC), other program requirements (MT and Science), and EN 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 required 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 BS and BA degrees. The GRE score 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 180 quarter credits with both a cumulative grade point average and a major/program grade point average of 2.5. Students must also achieve a minimum grade of C (2.0) in all courses taken from the major requirements list (see II below).

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
Choose one of the following two courses:		5
HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	
EN 120	Masterpieces of Literature	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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 CSC 487, 488, 489)		

See detailed core curriculum information beginning on page 55.

II. Major Requirements

Fifty-five credits in computer science, including:

CSC 151	Fundamentals of Computer Science I	5
CSC 152	Fundamentals of Computer Science II	5
CSC 250	File Processing and Database Concepts	5
CSC 251	Introduction to Computer Organization	5
CSC 308	Technical Communication	3
CSC 310	Data Structures and Analysis of Algorithms	5
CSC 380	Organization of Programming Languages	5
CSC 487	Software Engineering and Project Development I	4
CSC 488	Software Engineering and Project Development II	4
CSC 489	Software Engineering and Project Development III	4
CSC	Electives (300-level or above)	10

III. Other Program Requirements

- MT 134 Calculus and Analytic Geometry I 5
- MT 135 Calculus and Analytic Geometry II 5

Choose one of the following two courses: 5

- MT 222 Discrete Structures
- MT 310 Introduction to Advanced Mathematics

Choose one of the following two courses: 5

- MT 244 Fundamentals of Probability and Statistics
- MT 351 Probability

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 CSC 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

The bachelor of science in computer science degree requires students to complete 180 quarter credits with both a cumulative grade point average and a major/program grade point average of 2.5. Students must also achieve a minimum grade of C (2.0) in all courses taken from the major requirements list (see II below) and in prerequisites to CSC required courses.

I. Core Curriculum Requirements

- EN 110 Freshman English 5
- PL 110 Introduction to Philosophy and Critical Thinking 5

Choose one of the following two courses: 5

- HS 120 Introduction to Western Civilization
- HS 121 Studies in Modern Civilization

EN 120	Masterpieces of Literature	5
FA 120	Experiencing the Arts	5
PL 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 CSC 487, 488, 489)		

See detailed core curriculum information beginning on page 55.

II. Major Requirements

Seventy-five credits in computer science, including:

CSC 151	Fundamentals of Computer Science I	5
CSC 152	Fundamentals of Computer Science II	5
CSC 250	File Processing and Database Concepts	5
CSC 251	Introduction to Computer Organization	5
CSC 252	Computer Systems and Assembler Language	5
CSC 308	Technical Communication	3
CSC 310	Data Structures and Analysis of Algorithms	5
CSC 320	Object-oriented Development	5
CSC 380	Organization of Programming Languages	5
CSC 440	Operating Systems	5
CSC 487	Software Engineering and Project Development I	4
CSC 488	Software Engineering and Project Development II	4
CSC 489	Software Engineering and Project Development III	4
CSC	Electives (400 or above)	15

III. Other Program Requirements

EE 461	Data Communications	4
MT 134	Calculus and Analytic Geometry I	5
MT 135	Calculus and Analytic Geometry II	5
MT 136	Calculus and Analytic Geometry III	5
MT 233	Linear Algebra	3
PH 200	Mechanics	5
PH 201	Electricity and Magnetism	5
PH 202	Waves, Optics, and Thermodynamics	5

Choose one of the following two courses:

MT 222	Discrete Structures	
MT 310	Introduction to Advanced Mathematics	

Choose one of the following two courses:

MT 244	Fundamentals of Probability and Statistics	
MT 351	Probability	

Please Note: 1. A minimum C(2.0) grade is required in prerequisites to all CSC 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. 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:

CSC 151	Fundamentals of Computer Science I	5
CSC 152	Fundamentals of Computer Science II	5
CSC 250	File Processing and Database Concepts	5
CSC 251	Introduction to Computer Organization	5
CSC 310	Data Structures and Analysis of Algorithms	5
CSC 320	Object-oriented Development	5
CSC 380	Organization of Programming Languages	5

See policy for minors on page 46.

Advanced Placement Credit

Students who have taken the College Board advanced 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

CSC 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 CSC 103 and CSC 104. Prerequisites: none.

CSC 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 CSC 103 and CSC 104.

CSC 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: MT 134. (fall, winter)

CSC 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 CSC 151. (winter, spring)

CSC 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 CSC 151 or previous programming experience.

CSC 191 Special Topics 1 to 5**CSC 192 Special Topics 1 to 5****CSC 193 Special Topics 1 to 5****CSC 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 CSC 230 and CSC 231. Prerequisites: ME 230 or PH 200; MT 232 and MT 233.

CSC 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 CSC 230 and CSC 231. Prerequisites: ME 230 or PH 200; MT 232 and MT 233.

CSC 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 CSC 152. (fall, spring) (Previously titled File Processing and Database Concepts.)

CSC 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: CSC 152, and either MT 222 or MT 310. (fall, spring)

CSC 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 CSC 251. (winter)

CSC 291 Special Topics 1 to 5
CSC 292 Special Topics 1 to 5
CSC 293 Special Topics 1 to 5

CSC 296 Independent Study 1 to 5
CSC 297 Independent Study 1 to 5
CSC 298 Independent Study 1 to 5

CSC 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: CSC 250, EN 110.

CSC 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 CSC 250; MT 222 or MT 310. (fall, winter) (Previously titled Data Structures and Analysis of Algorithms.)

CSC 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 CSC 310. (winter)

CSC 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 CSC 310.

CSC 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 CSC 310. (spring)

CSC 391 Special Topics 1 to 5

CSC 392 Special Topics 1 to 5

CSC 393 Special Topics 1 to 5

CSC 396 Independent Study 1 to 5

CSC 397 Independent Study 1 to 5

CSC 398 Independent Study 1 to 5

CSC 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 CSC 310.

CSC 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 CSC 310 and either MT 244 or MT 351. (formerly CSC 340)

CSC 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 CSC 252 and 440.

CSC 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 CSC 310 and either MT 244 or MT 351.

CSC 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: CSC 310, MT 233 and either MT 244 or MT 351.

CSC 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 CSC 310.

CSC 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 CSC 380.

CSC 487 Software Engineering and Project Development I 4**CSC 488 Software Engineering and Project Development II 4****CSC 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 CSC 487, projects are defined and requirement specifications developed by the project teams. The required software products are then designed and implemented in CSC 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, CSC 487, 488, and 489, must be taken as a continuous sequence. Prerequisites for CSC 487: CSC 308 and 380, plus permission of the department. Prerequisites for CSC 488: CSC 487 plus permission of the department. Prerequisites for CSC 489: CSC 488 plus permission of the department. (487, fall; 488, winter; 489, spring)

CSC 490 Senior Project 5

This course is to be an integrative project for the CSC 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 CSC 360 and CSC 380.

CSC 491 Special Topics 1 to 5**CSC 492 Special Topics 1 to 5****CSC 493 Special Topics 1 to 5****CSC 496 Independent Study 1 to 5****CSC 497 Independent Study 1 to 5****CSC 498 Independent Study 1 to 5**

Diagnostic Ultrasound

Jeff W. Pope, BS, RDMS, RDCS, Chairperson

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 candidacy 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 180 quarter credits with a cumulative and major/program grade point average of 2.3, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5

Choose one of the following two courses:

HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	

EN 120	Masterpieces of Literature	5
PL 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 US370)	
	Senior Synthesis (satisfied by Ultrasound Internship)	

See detailed core curriculum information beginning on page 55.

II. Major Requirements

Seventy-eight credits in diagnostic ultrasound, including:

US 330	Diagnostic Ultrasound I	5
US 331	Diagnostic Ultrasound II	5
US 332	Echocardiography	5
US 333	Methods of Cardiac Evaluation	2
US 334	Vascular Evaluation and Doppler	2
US 335	Introduction to Instrumentation (lab)	1
US 355	Human Cross Section Anatomy	5
US 370	Health Care Management and Professional Issues (core interdisciplinary)	3
US 375	Ultrasound Instrumentation	4

Senior Synthesis: Ultrasound Internship*

US 473	Clinical Orientation to Ultrasound*	10
US 474	Clinical Experience in Ultrasound I* (must be taken three times, 8 credits each)	24
US 483	Ultrasound Seminar I* (must be taken four times, 2 credits each)	8
US 484	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 prior to ultrasound specific courses.

III. Other Program Requirements

BL 165	General Biology (majors level biology, not 100/101) ..	5
BL 200	Anatomy and Physiology I	5
BL 210	Anatomy and Physiology II	5
BL	Elective (majors level biology, not 100/101)	5
N 321	Pathophysiology I	3
N 322	Pathophysiology II	3
PH 350	Physics of Diagnostic Ultrasound	3

Choose one of the following two courses: 5

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

Choose one of the following three options: 5 or 10

MT 131	Calculus for Life Sciences (preferred) (5)
MT 130	Elements of Calculus for Business (5)
MT 134 and 135	Calculus and Analytic Geometry I and II (10)

Choose physics series a. or b.: 10

a. PH 105	Mechanics and Sound
PH 106	Electricity, Magnetism, and Thermodynamics

b. PH 200	Mechanics
PH 201	Electricity and Magnetism

Please Note: 1. MT 111 and MT 115 are prerequisites to PH 105 and MT 131. 2. Contact department regarding preferred course sequence.

Diagnostic Ultrasound Courses

US 330	Diagnostic Ultrasound I	5
US 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: US 355, PH 350. (330 spring, 331 winter)

US 332	Echocardiography	5
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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: BL 200, 210; US 355; PH 350. (spring)

US 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: US 483.

US 483 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 US 484.

US 484 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, US 474. Fulfills senior synthesis requirement, together with US 483.

Electrical Engineering

Paul O. Neudorfer, PhD, Chairperson

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 CH, CSC, EE, ME, MT, and PH courses and EN 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 EE 201, 210, 311, 312, 320, 321, 327, 328; PH 205 and 330. The electrical engineering advanced requirements (EE 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.

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5

Choose one of the following two courses:

HS 120	Introduction to Western Civilization	5
HS 121	Studies in Modern Civilization	5

EN 120	Masterpieces of Literature	5
PL 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 beginning on page 55.

II. Major Requirements

Seventy-eight credits in electrical engineering, including:

EE 201	Digital Operations and Computation	4
EE 210	Electrical Circuits I	5
EE 304	Microprocessor Design	4
EE 311	Electrical Circuits II	4
EE 312	Linear System Analysis	4
EE 320	Electronics I	5
EE 321	Electronics II	5
EE 327	Electrical Circuits Laboratory	2
EE 328	Electronic Circuits Laboratory	2
EE 331	Distributed Systems	4
EE 360	Communication Systems	3
EE 403	Digital Signal Processing	4
EE 450	Electromechanical Energy Conversion	4
EE 457	Electromechanical Energy Conversion Lab	2
EE 467	Communications Lab	2
EE 487	Engineering Design I	4
EE 488	Engineering Design II	4
EE 489	Engineering Design III	4
EE	Electives	12

III. Other Program Requirements

CEE 402	Engineering Economy	3
CH 121	General Chemistry I	4
CH 131	General Chemistry Lab I	1
MME 105	Engineering Graphics and Design	3
MME 107	Introduction to Microcomputer Applications	2
MT 134	Calculus and Analytic Geometry I	5
MT 135	Calculus and Analytic Geometry II	5
MT 136	Calculus and Analytic Geometry III	5
MT 232	Multivariable Calculus	3
MT 233	Linear Algebra	3
MT 234	Differential Equations	4
PH 200	Mechanics	5
PH 201	Electricity and Magnetism	5
PH 202	Waves, Optics, and Thermodynamics	5
PH 205	Introduction to Quantum Physics	3
PH 330	Electromagnetic Field Theory	5

Choose one of the following two courses:

CSC 230	FORTAN for Engineers
CSC 231	C Programming for Science and Engineering

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

a. MME 215 Statics/Dynamics (5)

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

c. MME 210 Statics (5)
PH 310 Intermediate Mechanics I (5)

Please Note: 1. No transfer credit is allowed for EE 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.

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	

sample:

EE 201

left digit middle digit right digit

EE 201 means:

sophomore class; digital/computer; lecture and lecture/laboratory

EE 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)

- EE 210 Electrical Circuits I 5**
 Fundamental concepts and units, Kirchhoff's laws, mesh and node analysis, fundamental circuits, linearity and superposition; first and second order circuits; natural and forced responses, initial conditions; sinusoidal analysis. Prerequisites: MT 233, PH 201. Corequisite: MT 234. (fall, spring)
- EE 296 Independent Study 1 to 5**
EE 297 Independent Study 1 to 5
EE 298 Independent Study 1 to 5
- EE 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: EE core curriculum, or CSC 251. (fall, winter, spring)
- EE 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: EE 210 and departmental candidacy. (fall, winter)
- EE 312 Linear System Analysis 4**
 Linear systems and response type classifications. System functions. Impulse response. Convolution. Fourier series and transforms. Signal spectra. Prerequisite: EE 311. (winter, spring)
- EE 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: MT 234 and PH 201. (fall, winter)
- EE 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: EE 311. (fall, winter)
- EE 321 Electronics II 5**
 Continuation of EE 320. Transistor amplifiers, frequency response, feedback, analog integrated circuits, introduction to oscillators, introduction to logic families. Prerequisite: EE 320. (winter, spring)

- EE 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: EE 311 and EE 320. (fall, winter)
- EE 328 Electronic Circuits Laboratory 2**
Continuation of EE 327. Emphasis on solid-state circuits, both analog and digital. Prerequisite: EE 327. Corequisite: EE 321. (winter, spring)
- EE 331 Distributed Systems 4**
Analysis of distributed systems; steady-state and transient analysis of lossless lines, lossy lines; waveguides. Prerequisite: EE core curriculum. (fall, spring)
- EE 360 Communication Systems 3**
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: EE core curriculum. (fall, spring)
- EE 391 Special Topics 1 to 5**
EE 392 Special Topics 1 to 5
EE 393 Special Topics 1 to 5
- EE 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: EE core curriculum. (fall, winter)
- EE 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: EE core curriculum.
- EE 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: EE core curriculum, EE 304.
- EE 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: EE core curriculum.

- EE 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: EE 320.
- EE 432 Microwave Systems 4**
Propagation of electromagnetic waves and interaction with materials, guided waves, and passive and active devices, microstrip and integrated circuits. Prerequisite: EE core curriculum. Corequisite: EE 331.
- EE 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: EE core curriculum.
- EE 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: EE core curriculum. (fall, winter)
- EE 451 Power Systems 4**
Analysis of power systems: symmetrical components, power system parameters, steady-state operation, faults, economic operation. Prerequisites: EE core curriculum, EE 450. Corequisite: EE 331.
- EE 457 Electromechanical Energy Conversion Laboratory 2**
A laboratory covering the principles and practice of electromechanical energy conversion devices. Prerequisites: EE core curriculum, EE 450. (winter, spring)
- EE 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 EE elective for electrical engineering majors. Prerequisite: EE 201 or CSC 251. (spring)
- EE 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: EE core curriculum; or PH 205 and PH 330.
- EE 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: EE core curriculum, EE 331. Corequisite: EE 360. (fall, winter)

EE 470 Automated Testing 4

Theory and application of testing techniques for analog and digital systems. The IEEE-488/1980 standard general purpose interface bus is described and used. IEEE 1149.1 is also covered. Two lectures and one four-hour laboratory per week. Prerequisites: EE core curriculum, or EE 315.

EE 487 Engineering Design I 4**EE 488 Engineering Design II 4****EE 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 EE 487, student teams are formed and industrially sponsored projects assigned. Project proposals are written and presented. In EE 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. Prerequisite: advanced junior or senior standing in engineering. (487, fall; 488, winter; 489, spring)

EE 491 Special Topics 1 to 5**EE 492 Special Topics 1 to 5****EE 493 Special Topics 1 to 5****EE 496 Independent Study 1 to 5****EE 497 Independent Study 1 to 5****EE 498 Independent Study 1 to 5**

Independent study 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

Patricia Stroh, PhD, Acting Chairperson

Objectives

The general science program provides special opportunities to students interested in interdisciplinary fields, such as ecology, environmental science, earth science, and premedical, pre dental, 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 director of the program. 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

Tracks 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 180 credits with a cumulative and major/program grade point average of 2.0, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English.....	5
PL 110	Introduction to Philosophy and Critical Thinking	5

Choose one of the following two courses 5

HS 120	Introduction to Western Civilization
HS 121	Studies in Modern Civilization

EN 120	Masterpieces of Literature	5
FA 120	Experiencing the Arts	5
PL 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 beginning on page 55.

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.

CSC	Elective	5
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Choose two courses from the following five

BL 165	General Biology I	
BL 166	General Biology II	
BL 167	General Biology III	
BL 200	Anatomy and Physiology I	
BL 210	Anatomy and Physiology II	

Choose option a. or b.

a. CH 101	Introductory General Chemistry	
CH 102	Introductory Organic and Biochemistry	
b. CH 121	General Chemistry I	
CH 131	General Chemistry Lab I	
CH 122	General Chemistry II	
CH 132	General Chemistry Lab II	

Choose one set of two courses from option a., b., or c.

a. MT 111	College Algebra	
MT 131	Calculus for Life Sciences (note: MT 115 is prerequisite)	
b. MT 118	College Algebra for Business	
MT 130	Elements of Calculus for Business	
c. MT 134	Calculus and Analytic Geometry I	
MT 135	Calculus and Analytic Geometry II	

Choose one set of two courses from option a. or b.

a. PH 105	Mechanics and Sound	
PH106	Electricity, Magnetism, and Thermodynamics	
b. PH 200	Mechanics	
PH 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 CH 219, CH 231, CH 232, MT 232, MT 233, MT 234, PH 202, PH 204, and PH 205.

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

Bachelor of Science in General Science Preprofessional Track

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 180 credits with a cumulative and major/program grade point average of 2.0, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5

Choose one of the following two courses:

HS 120	Introduction to Western Civilization	5
HS 121	Studies in Modern Civilization	5

EN 120	Masterpieces of Literature	5
FA 120	Experiencing the Arts	5
PL 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 (PL 352 recommended)	5
	Theological and Religious Studies Phase III (300-399)	5
	Interdisciplinary	3 to 5
	Preprofessional Senior Synthesis	3

II. Major Requirements

Ninety or 91 credits in mathematics, science, and computer science, including:

BL 165	General Biology I	5
BL 166	General Biology II	5
BL 167	General Biology III	5

Choose any three of the following courses: 14 or 15

BL 240	Genetics (4)	
BL 300	Microbiology (5)	
BL 310	Comparative Vertebrate Embryology (5)	
BL 325	Comparative Vertebrate Anatomy (5)	
BL 388	Animal Physiology (5)	
BL 485	Cell Physiology (5)	
CH 121	General Chemistry I	4
CH 131	General Chemistry Lab I	1
CH 122	General Chemistry II	4
CH 132	General Chemistry Lab II	1
CH 123	General Chemistry III	4
CH 133	General Chemistry Lab III	1
CH 335	Organic Chemistry I	3
CH 345	Organic Chemistry Lab I	2
CH 336	Organic Chemistry II	3
CH 346	Organic Chemistry Lab II	2
CH 337	Organic Chemistry III	4
CH 347	Organic Chemistry Lab III	2
CSC	Elective	5

Choose series a. or b. 15

- a. PH 105 Mechanics and Sound
 PH 106 Electricity, Magnetism, Thermodynamics
 PH 107 Survey of Modern Physics
- b. PH 200 Mechanics
 PH 201 Electricity and Magnetism
 PH 202 Waves, Optics, and Thermodynamics

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

- a. MT 111 College Algebra
 MT 131 Calculus for Life Sciences (MT115 is prerequisite)
- b. MT 131 Calculus for Life Sciences
 PSY 303 Statistics and Research Methods
 PSY 304 Statistics and Research Methods Lab
- c. MT 134 Calculus and Analytic Geometry I
 MT 135 Calculus and Analytic Geometry II

Please Note: 1. Strongly recommend taking CH 455 (Biochemistry) as an elective. 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 Environmental Science Track

In order to earn the bachelor of science in general science degree in the environmental science track, students must complete 180 credits with a cumulative and major/program grade point average of 2.0, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5

Choose one of the following two courses:

HS 120	Introduction to Western Civilization	5
HS 121	Studies in Modern Civilization	

EN 120	Masterpieces of Literature	5
FA 120	Experiencing the Arts	5
PL 220	Philosophy of the Human Person	5
Social Science I	.....	5

Social Science II (choose one of the following two courses)	.....	5
EC 271	Principles of Economics-Macro	
PLS 205	Introduction to American Politics	

Theology and Religious Studies Phase II (200-299)	.....	5
Ethics (upper division)	.....	5
Theology and Religious Studies Phase III (RS 347 recommended)	..	5
Interdisciplinary	.....	3 to 5
Environmental Senior Synthesis	.....	3

II. Major Requirements

Ninety-five credits in mathematics, science, and computer science including:

BL 165	General Biology I	5
BL 166	General Biology II	5
BL 167	General Biology III	5
BL 470	General Ecology	5

Choose any two of the following

(At least one must be a 300-level course)		10
BL 235	Invertebrate Zoology	
BL 252	Taxonomy of Flowering Plants	
BL 275	Marine Biology	
BL 385	Plant Physiology	
BL 388	Animal Physiology	

Summer field studies; i.e., Aquatic Ecology, Marine Ecology (5)

CH 121	General Chemistry I	4
CH 131	General Chemistry Lab I	1
CH 122	General Chemistry II	4
CH 132	General Chemistry Lab II	1
CH 123	General Chemistry III	4

CH 133	General Chemistry Lab III	1
CH 219	Quantitative Analysis	5
CH 231	Fundamental Organic Chemistry I	4
CH 233	Fundamental Organic Chemistry Lab I	1
CH 232	Fundamental Organic Chemistry II	4
CH 234	Fundamental Organic Chemistry Lab II	1
CSC	Elective	5
ISC 120	Introduction to Geology	5
Choose option a., b., or c.		5
a. PSY 201	Statistics I	
b. PSY 303	Statistics and Research Methods	
PSY 304	Statistics and Research Methods Lab	
c. MT 244	Fundamentals of Probability and Statistics	
Choose option a. or b.		10
a. PH 105	Mechanics and Sound	
PH 106	Electricity, Magnetism, and Thermodynamics	
b. PH 200	Mechanics	
PH 201	Electricity and Magnetism	
Choose series a. or b.		10
a. MT 111	College Algebra	
MT 131	Calculus for Life Sciences	
b. MT 134	Calculus and Analytic Geometry I	
MT 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 general science 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

ISC 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: MT 101 or 107 or above. (winter, spring)

- ISC 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: MT 101, 107, or above. (fall)
- ISC 191 Special Topics 1 to 5**
ISC 192 Special Topics 1 to 5
ISC 193 Special Topics 1 to 5
- ISC 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: MT 101 or 107 or above.
- ISC 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: MT 101 or 107 or above.
- ISC 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: MT 101 or 107 or above. (fall)
- ISC 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: MT 101, 107, or above. (winter)
- ISC 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: MT 101 or 107 or above. (spring)
- ISC 291 Special Topics 1 to 5**
ISC 292 Special Topics 1 to 5
ISC 293 Special Topics 1 to 5
ISC 296 Independent Study 1 to 5
ISC 297 Independent Study 1 to 5
ISC 298 Independent Study 1 to 5

- ISC 301 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)
- ISC 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: ISC 110 and one laboratory science course; or two science courses, one with laboratory experience.
- ISC 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: ISC 120, MT 111, CH 121, 131, 122, 132.
- ISC 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.
- ISC 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.
- ISC 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, PL 220; HS 104 or 105.
- ISC 480 Interdisciplinary Core Course 3 to 5**
Title and content change each term.
- ISC 491 Special Topics 1 to 5**
ISC 492 Special Topics 1 to 5
ISC 493 Special Topics 1 to 5
ISC 496 Independent Study 1 to 5
ISC 497 Independent Study 1 to 5
ISC 498 Independent Study 1 to 5

Mathematics

Janet E. Mills, PhD, Chairperson

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.

Degrees Offered

- Bachelor of Arts
- Bachelor of Science
- Bachelor of Science in Mathematics

Major Offered

- Mathematics
- Mathematics, Applied Mathematics Track
- Mathematics, Pure Mathematics Track

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 180 credits with a cumulative and major/program grade point average of 2.0, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
Choose one of the following two courses:		
HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	
EN 120	Masterpieces of Literature	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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 MT 481)	
See detailed core curriculum information beginning on page 55.	

II. Major Requirements

Forty-eight credits of mathematics, including:

MT 134	Calculus and Analytic Geometry I	5
MT 135	Calculus and Analytic Geometry II	5
MT 136	Calculus and Analytic Geometry III	5
MT 232	Multivariable Calculus	3
MT 233	Linear Algebra	3
MT 234	Differential Equations	4
MT 481	Senior Synthesis	3
MT	Electives (300 or above)	10
Choose one of the following two courses:		
MT 222	Discrete Structures	
MT 310	Introduction to Advanced Mathematics	

Choose one of the following two courses:		
MT 411	Introduction to Abstract Algebra I	
MT 431	Introduction to Real Analysis I	

III. Other Program Requirements

CSC	Elective	5
Electives	(approved natural science, computer science, psychology, or economics	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 180 credits with a cumulative and major/program grade point average of 2.0, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
Choose one of the following two courses:		
HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	
EN 120	Masterpieces of Literature	5
Lab Science	.....	5

FA 120	Experiencing the Arts	5
PL 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 MT 481)	

See detailed core curriculum information beginning on page 55.

II. Major Requirements

Fifty-eight credits of mathematics, including:

MT 134	Calculus and Analytic Geometry I	5
MT 135	Calculus and Analytic Geometry II	5
MT 136	Calculus and Analytic Geometry III	5
MT 232	Multivariable Calculus	3
MT 233	Linear Algebra	3
MT 234	Differential Equations	4
MT 481	Senior Synthesis	3
MT	Electives (300 or above)	10

Choose one of the following two courses:

MT 222	Discrete Structures	5
MT 310	Introduction to Advanced Mathematics	

Choose one of the following three courses:

MT 244	Fundamentals of Probability and Statistics	5
MT 351	Probability	
MT 371	Introduction to Numerical Methods	

Choose two of the following four courses:

MT 411	Introduction to Abstract Algebra I	10
MT 412	Introduction to Abstract Algebra II	
MT 431	Introduction to Real Analysis I	
MT 432	Introduction to Real Analysis II	

III. Other Program Requirements

CSC Elective	5
Electives (approved natural science, computer science, engineering, 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 180 credits with a cumulative and major/program grade point average of 2.50. Students must choose one of the following two tracks:

Pure Mathematics Track

This track should be chosen by any student planning to pursue graduate studies in pure or applied mathematics

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
Choose one of the following two courses:		5
HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	
EN 120	Masterpieces of Literature	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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 MT 481)		

See detailed core curriculum information beginning on page 55.

II. Major Requirements

Sixty-eight credits in mathematics, including:

MT 134	Calculus and Analytic Geometry I	5
MT 135	Calculus and Analytic Geometry II	5
MT 136	Calculus and Analytic Geometry III	5
MT 232	Multivariable Calculus	3
MT 233	Linear Algebra	3
MT 234	Differential Equations	4
MT 411	Introduction to Abstract Algebra I	5
MT 412	Introduction to Abstract Algebra II	5
MT 431	Introduction to Real Analysis I	5
MT 432	Introduction to Real Analysis II	5
MT 481	Senior Synthesis	3
MT	Electives (numbered 222 or above)	10

Choose one of the following two courses:

MT 222	Discrete Structures	
MT 310	Introduction to Advanced Mathematics	

Choose one of the following four courses: 5

MT 244	Fundamentals of Probability and Statistics	
MT 351	Probability	
MT 361	Applied Mathematics I	
MT 371	Introduction to Numerical Methods	

III. Other Program Requirements

CSC	Elective	5
Electives	(approved natural science, computer science, or economics)	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 Track

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

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5

Choose one of the following two courses: 5

HS 120	Introduction to Western Civilization
HS 121	Studies in Modern Civilization

EN 120	Masterpieces of Literature	5
Lab Science	.....	5
FA 120	Experiencing the Arts	5
PL 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

See detailed core curriculum information beginning on page 55.

II. Major Requirements

Sixty-eight credits in mathematics, including:

MT 134	Calculus and Analytic Geometry I	5
MT 135	Calculus and Analytic Geometry II	5
MT 136	Calculus and Analytic Geometry III	5
MT 232	Multivariable Calculus	3
MT 233	Linear Algebra	3
MT 234	Differential Equations	4
MT 361	Applied Mathematics I	5
MT 461	Applied Mathematics II	5
MT 481	Senior Synthesis	3
MT	Elective (222 or above)	5

Choose one of the following two courses:	5
MT 222 Discrete Structures	
MT 310 Introduction to Advanced Mathematics	
Choose two of the following four courses:	10
(Cannot take both MT 244 and MT 351)	
MT 244 Fundamentals of Probability and Statistics	
MT 351 Probability	
MT 371 Introduction to Numerical Methods	
MT 437 Introduction to Complex Variables	
Choose two of the following four courses:	10
MT 411 Introduction to Abstract Algebra I	
MT 412 Introduction to Abstract Algebra II	
MT 431 Introduction to Real Analysis I	
MT 432 Introduction to Real Analysis II	

III. Other Program Requirements

CSC	Elective	5
Electives	(approved natural science, computer science, or economics)	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:

MT 134 Calculus and Analytic Geometry I	5
MT 135 Calculus and Analytic Geometry II	5
MT 136 Calculus and Analytic Geometry III	5
Approved mathematics courses (222 or higher)	15

See policy for minors on page 46.

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 MT 321 as an upper-division elective

and substituting MT 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 MT 101; MT 111 or MT 118; MT 130 or MT 131 or MT 134; MT 135; and MT 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 MT 101, MT 107, and MT 200. A student may not receive credit for more than one course from each of the following groups: MT 111 and 118; MT 130, MT 131, and MT 134; MT 244 and MT 351. A student who has taken MT 130 or MT 131 and, due to a change of major, is required to take MT 134 as preparation for MT 135 will receive credit for both MT 130 (or MT 131) and MT 134. Credit for MT 134 will be contingent on completing MT 135 with a 2.0 or better.

Mathematics Courses

- MT 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)
- MT 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)
- MT 107 Mathematics: A Practical Art 5**
General introduction to logic, sets, probability, statistics, algorithmic processes and other selected topics. Hands-on experience with microcomputers. Emphasis on development of quantitative skills. Prerequisite: One year each of high school algebra and geometry. (fall, winter)
- MT 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 MT 101, or qualifying examination. Credit not granted for both MT 111 and MT 118. (fall, winter)
- MT 115 Trigonometry 2**
Radian measure, trigonometric functions and their graphs, identities, trigonometric equations, inverse trigonometric functions. Prerequisite: a grade of C- or better in MT 111 or 118, or qualifying examination. (fall, winter, spring)

- MT 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 MT 101, or qualifying examination. Credit not granted for both MT 111 and MT 118. (fall, winter, spring)
- MT 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 MT 111 or MT 118, or qualifying examination. (fall, winter, spring)
- MT 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 MT 111 and MT 115, or qualifying examination. (spring)
- MT 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 MT 111, or qualifying examination. Corequisite: MT 115, unless exempted by qualifying examination. (fall, winter, spring)
- MT 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 MT 134. (fall, winter, spring)
- MT 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 MT 135. (fall, winter, spring)
- MT 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: MT 101 or 107 or equivalent.
- MT 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 MT 135 or permission of instructor; a computer programming course. (fall)

- MT 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: MT 233; proficiency in a programming language.
- MT 381 Elementary Topology 5**
 Set theory; topology of the real line; topological spaces; compactness; connectedness; product spaces; metric spaces. Prerequisite: MT 233.
- MT 391 Special Topics 2 to 5**
MT 392 Special Topics 2 to 5
MT 393 Special Topics 2 to 5
- MT 396 Independent Study 1 to 5**
MT 397 Independent Study 1 to 5
MT 398 Independent Study 1 to 5
- MT 411 Introduction to Abstract Algebra I 5**
MT 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, winter of alternate years)
- MT 431 Introduction to Real Analysis I 5**
MT 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, winter of alternate years)
- MT 437 Introduction to Complex Variables 5**
 The complex number system, analytic functions, integration, series, residues, conformal mapping. Prerequisite: MT 234.
- MT 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, introduction to modeling. Computer laboratory component. Prerequisite: MT 361.
- MT 480 Interdisciplinary Core Course 3 to 5**
 Title and content change each term.
- MT 481 Senior Synthesis 3**
 Problems in modern mathematics and applications. Individual projects will include a written report and a classroom presentation. Prerequisite: permission. (spring)

MT 491	Special Topics	2 to 5
MT 492	Special Topics	2 to 5
MT 493	Special Topics	2 to 5
MT 497	Independent Study	1 to 5
MT 498	Independent Study	1 to 5
MT 499	Independent Study	1 to 5

Mechanical and Manufacturing Engineering

Jack Mattingly, PhD, Chairperson

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 each of four 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/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 CEE, CH, CSC, MME, MT, and PH courses with a combined grade point average of at least 2.50, as well as EN 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 2.5 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). The major in mechanical engineering may not be combined with the major in mechanical/manufacturing engineering.

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 45 credits in the core curriculum and 192 credits total. 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
Choose one of the following two courses:		
HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	
EN 120	Masterpieces of Literature	5
PL 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 beginning on page 55.

II. Major Program Requirements

Seventy-four credits in mechanical engineering, including:

MME 105	Engineering Graphics and Design	3
MME 107	Introduction to Microcomputer Applications	2
MME 210	Statics	5
MME 230	Dynamics	5
MME 304	Basics of Computer Aided Engineering	4
MME 321	Thermodynamics	4
MME 323	Heat Transfer	5
MME 350	Materials Science	5
MME 370	Machine Elements I	4
MME 372	Machine Elements II	4
MME 425	Applied Thermodynamics	5
MME 434	Dynamic Systems	4
MME 436	Dynamic Systems Lab	2
MME 487	Engineering Design I	4
MME 488	Engineering Design II	4
MME 489	Engineering Design III	4
Engineering electives (approved by department)		10

III. Other Program Requirements

CEE 221	Strength of Materials I	4
CEE 222	Strength of Materials Lab I	2

CEE 331	Fluid Mechanics	4
CEE 337	Fluids Lab	2
CEE 402	Engineering Economy	3
CH 121	General Chemistry I	4
CH 131	General Chemistry Lab I	1
CSC 230	FORTTRAN for Science and Engineering	3
EE 315	Elements of Electrical Engineering	5
MT 134	Calculus and Analytical Geometry I	5
MT 135	Calculus and Analytical Geometry II	5
MT 136	Calculus and Analytical Geometry III	5
MT 232	Multivariable Calculus	3
MT 233	Linear Algebra	3
MT 234	Differential Equations	4
PH 200	Mechanics	5
PH 201	Electricity and Magnetism	5
PH 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/Manufacturing Engineering

In order to earn the bachelor of science in mechanical engineering degree with a major in mechanical/manufacturing engineering, students must complete a minimum of 45 credits in the core curriculum and 192 credits total. 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

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5

Choose one of the following two courses:

HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	

EN 120	Masterpieces of Literature	5
PL 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 beginning on page 55.

II. Major Requirements

Sixty-nine credits in mechanical engineering, including:

MME 105	Engineering Graphics and Design	3
MME 107	Introduction to Microcomputer Applications	2
MME 210	Statics	5
MME 230	Dynamics	5
MME 304	Basics of Computer Aided Engineering	4
MME 321	Thermodynamics	4
MME 323	Heat Transfer	5
MME 342	Manufacturing Processes	4
MME 350	Materials Science	5
MME 370	Machine Elements I	4
MME 372	Machine Elements II	4
MME 434	Dynamic Systems	4
MME 436	Dynamic Systems Lab	2
MME 443	Manufacturing Automation	4
MME 444	Computer Integrated Manufacturing (CIM)	2
MME 487	Engineering Design I	4
MME 488	Engineering Design II	4
MME 489	Engineering Design III	4

III. Other Program Requirements

CEE 221	Strength of Materials I	4
CEE 222	Strength of Materials Lab I	2
CEE 331	Fluid Mechanics	4
CEE 337	Fluids Lab	2
CEE 402	Engineering Economy	3
CH 121	General Chemistry I	4
CH 131	General Chemistry Lab I	1
CSC 231	C Programming for Science and Engineering	3
EE 315	Elements of Electrical Engineering	5
MT 134	Calculus and Analytical Geometry I	5
MT 135	Calculus and Analytical Geometry II	5
MT 136	Calculus and Analytical Geometry III	5
MT 232	Multivariable Calculus	3
MT 233	Linear Algebra	3
MT 234	Differential Equations	4
MT 244	Probability and Statistics	5
OP 360	Manufacturing and Service Operations	5
PH 200	Mechanics	5
PH 201	Electricity and Magnetism	5
PH 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 mechanical/manufacturing engineering major for electives.

Mechanical Engineering Courses

Please note: All courses are numbered under a system which relates the technical content of lectures and laboratory courses to 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:



MME 105 Engineering Graphics and Design 3

Technical sketching. Isometric, orthographic, auxiliary, and sectional views. Dimensioning. Descriptive geometry. Introduction to computer-aided drafting (CAD). Introduction to engineering design. Includes design project using CAD. Laboratory. Corequisite: MME 107. (fall, winter, spring)

MME 107 Introduction to Microcomputer Applications 2

Introduction to the use of microcomputers for engineering. Integrated processing of graphics and text. Spreadsheet applications for engineers. BASIC programming for engineers. Laboratory. (fall, winter, spring)

MME 210 Statics 5

Vector algebra. Equilibrium of forces and moments, distributed forces, hydrostatics, friction, virtual work; all applied to simple bodies. Design problem. Five lectures per week. Prerequisites: MT 135, PH 200. (fall, winter)

MME 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. Rigid bodies. Plane motion and vibrations. Design problem. Five lecture hours per week. Students must pass a qualifying examination before proceeding to dynamics. Not open to MME and CEE students. Prerequisites: PH 200, MT 136. (fall)

MME 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: MME 210, MT 136. (winter, spring)

MME 291 Special Topics 1 to 5

MME 292 Special Topics 1 to 5

MME 293 Special Topics 1 to 5

MME 296 Independent Study 1 to 5

MME 297 Independent Study 1 to 5

MME 298 Independent Study 1 to 5

MME 304 Basics of Computer Aided Engineering 4

Introduction to microcomputer structure. Basics of interfacing microprocessors with the real world. Applications. Graphics, control, data acquisition, robotics. Design problem. Two lectures and one four-hour laboratory per week. Prerequisite: CSC 230. Corequisite: EE 315. (fall, spring)

MME 321 Thermodynamics 4

Thermal properties of ideal and real gases, liquids, vapors, and mixtures. Conservation of energy. Conversion of thermal energy to work. Power, efficiency, cycles, compressible gas flow. (winter, spring)

MME 323 Heat Transfer 5

Heat transfer – conduction, convection, and radiation. Conduction in one and two dimensions, steady state and transient. Forced and natural convection with phase change. Applications. Four lecture hours, one three-hour laboratory per week. Prerequisite: MME 321. Corequisite: CEE 331 or MME 215. (fall, spring)

MME 342 Manufacturing Processes 4

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. Three lectures and one laboratory or field trip per week. Prerequisite: MME 350. (spring)

MME 350 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. (fall, winter)

- MME 370 Machine Elements I** 4
Study of beams and columns. Failure theories. Introduction to fracture mechanics. Impact, fatigue, corrosion, and wear. Introduction to statistical considerations and reliability. Four lecture hours per week. Prerequisite: CEE 221. Corequisite: MME 350. (winter, spring)
- MME 372 Machine Elements II** 4
Continuation of MME 370. Fasteners, welds, springs, bearings, gears, clutches, and brakes. Four lecture hours per week. Prerequisite: MME 370. (fall, spring)
- MME 391 Special Topics** 1 to 5
MME 392 Special Topics 1 to 5
MME 393 Special Topics 1 to 5
- MME 396 Independent Study** 1 to 5
MME 397 Independent Study 1 to 5
MME 398 Independent Study 1 to 5
- MME 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: MME 304.
- MME 425 Applied Thermodynamics** 5
Thermodynamics applied to ideal and real cycles, internal and external combustion engines, fans, blowers, compressors, nozzles, refrigeration, air conditioning, liquefaction of gases. Design problem. Four lectures, one three-hour laboratory per week. Prerequisite: MME 321. (fall, winter)
- MME 426 Heat/Ventilation/Refrigeration** 4
Psychrometry; space heating and cooling loads; air conditioning; fans and ducts; heat exchangers; solar systems; refrigeration. Four lectures per week. Prerequisites: MME 323, 425.
- MME 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.
- MME 434 Dynamic Systems** 4
System modeling. System analysis based on transform calculus methods. Introduction to digital computer methods of analysis for non-linear systems. Topics include: Laplace transform, transfer functions, block diagram manipulation. Bode diagrams, root locus, system stability analysis, algorithms for computer system analysis. Four lectures per week. Prerequisite: EE 315; Corequisite: MME 323. (winter, spring)

- MME 436 Dynamic Systems Laboratory 2**
Laboratory experiments which augment the lecture material in MME 434. Characteristics and relevant constraints for a variety of system elements and assemblies. Design, construction and testing of a servo-system. One lecture and one three-hour laboratory per week. Prerequisite: MME 434. (fall, spring)
- MME 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: MME 434.
- MME 443 Manufacturing Automation 4**
Overview of manufacturing automation and assembly including hard automation, flexible automation, robotics, NC machine, automated material-handling systems, and automated inspection systems. Applications of digital and analog controls to manufacturing systems, especially NC and process control. Students are required to design and analyze an automation system. Four lectures per week. Prerequisite: permission of instructor. (fall)
- MME 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: MME 304. (winter)
- MME 454 Fracture Mechanics 2**
Modern fracture theory—stress intensity functions, crack driving forces. Fast fracture. Impact fracture. Two lectures per week. Prerequisite: MME 370.
- MME 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. Four lectures per week. Prerequisites: MME 321, CEE 331.
- MME 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: MME 321.
- MME 465 Turbomachinery 4**
Design operation of turbines and compressors, principles of turbine/compressor types, off-design operation, pumps, cavitation, two-phase flow. Design problem. Four lectures per week. Prerequisite: MME 321.
- MME 471 Kinematics and 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.

MME 487 Engineering Design I 4

Design process, problem solving and decision making, modeling and simulation, optimization, economics, costing, reliability. Four lecture hours per week. Prerequisite: department permission. (fall)

MME 488 Engineering Design II 4

MME 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. Prerequisite: MME 487 for 488; 488 for 489. (488, winter; 489, spring)

MME 491 Special Topics 2 to 5

MME 492 Special Topics 2 to 5

MME 493 Special Topics 2 to 5

MME 496 Independent Study 1 to 5

MME 497 Independent Study 1 to 5

MME 498 Independent Study 1 to 5

Physics

Reed A. Guy, PhD, Acting Chairperson

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 nuclear and nuclear reactor 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 specialize in another area, such as computer science.

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 180 credits with a cumulative and major/program grade point average of 2.0, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5
Choose one of the following two courses:		
HS 120	Introduction to Western Civilization	
HS 121	Studies in Modern Civilization	
EN 120	Masterpieces of Literature	5
FA 120	Experiencing the Arts	5
PL 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 beginning on page 55.

II. Major Requirements

Forty-five credits in physics, including:

PH 200	Mechanics	5
PH 201	Electricity and Magnetism	5
PH 202	Waves, Optics, and Thermodynamics	5
PH 204	Relativity	2
PH 205	Introduction to Quantum Physics	3
PH 310	Intermediate Mechanics I	5
PH 330	Electromagnetic Field Theory	5
PH 375	Nuclear Instrumentation	5
PH	Electives	10

III. Other Program Requirements

MT 134	Calculus and Analytic Geometry I	5
MT 135	Calculus and Analytic Geometry II	5
MT 136	Calculus and Analytic Geometry III	5
MT 232	Multivariable Calculus	3
MT 233	Linear Algebra	3
MT 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 180 credits with a cumulative and major/program grade point average of 2.0, including the following:

I. Core Curriculum Requirements

EN 110	Freshman English	5
PL 110	Introduction to Philosophy and Critical Thinking	5

Choose one of the following two courses:

HS 120	Introduction to Western Civilization
HS 121	Studies in Modern Civilization

EN 120	Masterpieces of Literature	5
FA 120	Experiencing the Arts	5
PL 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 beginning on page 55.

II. Major Requirements

Sixty credits in physics, including:

PH 200	Mechanics	5
PH 201	Electricity and Magnetism	5
PH 202	Waves, Optics, and Thermodynamics	5
PH 204	Relativity	2
PH 205	Introduction to Quantum Physics	3
PH 310	Intermediate Mechanics I	5
PH 311	Intermediate Mechanics II	3
PH 330	Electromagnetic Field Theory	5
PH 331	Electromagnetic Waves	3
PH 481	Theoretical Physics	5
PH 485	Quantum Mechanics	5
PH	Electives (cannot be PH 101)	14

III. Other Program Requirements

MT 134	Calculus and Analytic Geometry I	5
MT 135	Calculus and Analytic Geometry II	5
MT 136	Calculus and Analytic Geometry III	5
MT 232	Multivariable Calculus	3
MT 233	Linear Algebra	3
MT 234	Differential Equations	4
	Related Science Electives (approved by department)	12

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:

PH 200	Mechanics	5
PH 201	Electricity and Magnetism	5
PH 202	Waves, Optics, and Thermodynamics	5
PH 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 page 46.

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: PH 101, PH 105, PH 106, PH 107, PH 200, PH 201, PH 202, PH 375, and PH 475 have four lectures and one laboratory per week.

- PH 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)
- PH 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: MT 111, MT 115 or equivalent. (fall)
- PH 106 Electricity, Magnetism, and Thermodynamics 5**
Survey of electromagnetism. Electrostatics, magneto-statics, electromagnetic fields, dc and ac circuits, introduction to thermodynamics. Prerequisite: PH 105. (winter)
- PH 107 Survey of Modern Physics 5**
Optics, including reflection refraction, interference, diffraction and polarization. Introduction to atomic and nuclear physics. Prerequisite: PH 106. (spring)
- PH 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: MT 115, MT 134. (winter, spring)
- PH 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: PH 200, MT 135. (fall, spring)
- PH 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: PH 201, MT 136. (fall, winter)
- PH 204 Relativity 2**
An introduction to special relativity. The Lorentz transformation; relativistic kinematics and dynamics. Prerequisite: PH 202. (spring)

- PH 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: PH 202; MT 232. (winter, spring)
- PH 291 Special Topics 1 to 5**
PH 292 Special Topics 1 to 5
PH 293 Special Topics 1 to 5
- PH 296 Independent Study 1 to 5**
PH 297 Independent Study 1 to 5
PH 298 Independent Study 1 to 5
- PH 310 Intermediate Mechanics I 5**
Vector calculus; kinematics of a particle; one-dimensional motion of a particle; two- and three-dimensional dynamics of a particle; moving reference systems; central forces and celestial mechanics. Prerequisites: PH 200, MT 232. (winter)
- PH 311 Intermediate Mechanics II 3**
General motion of a rigid body; Lagrange's equations; small vibrations. Prerequisites: PH 310, MT 234. (spring)
- PH 330 Electromagnetic Field Theory 5**
Static electric fields in vacuum and material media; solutions of Laplace's and Poisson's equations in curvilinear coordinates; static magnetic fields; time-varying fields and Maxwell's equations. Prerequisites: PH 201, MT 234. (fall, winter)
- PH 331 Electromagnetic Waves 3**
Derivations and solutions of wave equations; plane waves in vacuum and material media; reflection, refraction, polarization; radiation of electromagnetic waves. Prerequisite: PH 330. (spring)
- PH 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, impedance, reflection, refraction, scattering, ranging, and Doppler effect; introduction to ultrasonic instrumentation. Prerequisites: PH 106 or equivalent; MT 131 or 134; enrollment in diagnostic ultrasound or permission. (fall)
- PH 361 Solid State Physics and Devices 5**
Crystal structure and defects; interatomic binding; thermal and electrical properties; energy bands, carrier statistics and carrier transport phenomena. Semiconductor devices. Prerequisite: PH 205.
- PH 375 Nuclear Instrumentation 5**
Ionizing radiation. Nuclear decay processes, interaction of radiation with matter, instrumentation for the detection of photons, charged particles and neutrons. Prerequisite: PH 205.

PH 391	Special Topics	1 to 5
PH 392	Special Topics	1 to 5
PH 393	Special Topics	1 to 5
PH 396	Independent Study	1 to 5
PH 397	Independent Study	1 to 5
PH 398	Independent Study	1 to 5
PH 470	Nuclear Physics	5
Structure and properties of nuclei and elementary particles; symmetries and conservation laws; electromagnetic, weak, and hadronic interactions; nuclear models. Prerequisites: PH 205, MT 234.		
PH 475	Basic Physics of Nuclear Fission Reactors	5
Brief historical sketch, discussion of pertinent nuclear reactions, cross-sections, moderation, equation of continuity, diffusion area, Fermi age, criticality and Fermi criticality equation, simple spherical reactor. Kinetic aspects are considered, such as the role of delayed neutrons and reactor period. The laboratory experiments deal with diffusion area, Fermi age, multiplication factor, buckling and control rod action. Prerequisites: PH 205; MT 234.		
PH 480	Interdisciplinary Core Courses	3 to 5
Title and content change each term.		
PH 481	Theoretical Physics	5
Topics in theoretical physics selected from statistical thermal and modern physics. Prerequisites: PH 205, MT 234. (fall)		
PH 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: PH 205, MT 234. (fall)		
PH 491	Special Topics	1 to 5
PH 492	Special Topics	1 to 5
PH 493	Special Topics	1 to 5
PH 496	Independent Study	1 to 5
PH 497	Independent Study	1 to 5
PH 498	Independent Study	1 to 5

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: CH 121, 122, 123, 131, 132, 133, 335, 336, 337, 345, 347; BL 165, 166, 167; PH 105, 106, 107. Schools of optometry generally require less organic chemistry. Professional schools also recommend 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 school 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 is able to write a supportive letter of evaluation.

Culture and Language Bridge Program

Alice Harman, Coordinator

Objectives

The Culture and Language Bridge Program is a comprehensive, quarter-long, 12-credit immersion experience designed for international students and non-native speakers of English. It focuses on the development of all aspects of language and communicative competence in an academic environment. It is also designed to help students overcome cultural barriers that prevent them from full participation in the Seattle University experience.

The Culture and Language Bridge Program also provides follow-up assistance throughout the year for students who have completed the 12-credit program. During winter and spring terms, the Culture and Language Bridge Program offers courses to students who would like to continue to improve their English skills.

Admission Requirements for Undergraduates

All non-native speakers of English whose TOEFL (Test of English as a Foreign Language) score is below 550 are required to enroll in the Culture and Language Bridge Program during their first quarter at Seattle University. The Culture and Language Bridge Program is offered during summer and fall terms only. The minimum TOEFL score for admission is 520.

Program Requirements

Students must successfully complete the five-credit English 101 course as part of the total 12 credits of the program. That course will count toward graduation and the grade will be figured into the student's grade point average. The remaining seven credits of classroom communication, academic reading and writing, and language lab work 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.

Culture and Language Bridge Program Courses

CLB 087 Academic Reading and Writing 3

Exercises to develop academic writing, including rhetorical patterns, paragraph writing, essay writing, quoting, library research, and advanced sentence structure. Exercises to develop academic reading, including skimming, scanning, inferencing, vocabulary, note-taking, and identifying main ideas. Does not contribute to degree credits.

CLB 088	Classroom Communication	3
Exercises to develop spoken English in an academic environment, including in-class participation, group speaking skills, oral presentations, seminar presentations, and pronunciation. Exercises to develop academic listening skills, including lectures and note-taking. Does not contribute to degree credits.		
CLB 089	Language Lab	1
A variety of activities designed to give students individualized, practical application of language in an English environment. Does not contribute to degree credits.		
CLB 091	Special Topics	1 to 5
CLB 092	Special Topics	1 to 5
CLB 093	Special Topics	1 to 5
CLB 096	Independent Study	1 to 5
CLB 097	Independent Study	1 to 5
CLB 098	Independent Study	1 to 5

Early Success Program

Garrett Stokes, 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 short essay, a phone interview, and follow-up phone interviews.

Program Requirements

Students must successfully complete both the summer and fall quarter portion 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 will be enrolled in two university courses: English 101 (5 credits) and Freshman Seminar (non-credit). Designed to help students 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. Off-campus trips, computer projects, tutoring sessions, and time for study are included.

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.

Option 2: Students may take 10 credits (English 110 plus one other core course) during fall quarter. In addition to 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 Humanities and Family Structure

Robert Spitzer, S.J., Director

The Institute on Humanities and Family Structure combines academic preparation and credit with service to the larger community. In a program designed to redress the decline in American family life, students spend one quarter studying family ethics to prepare themselves to address high school students in outreaches during winter and spring quarters. In these outreaches, Seattle University students work with their younger audiences to help them better understand the confusion that often accompanies adolescence, friendship and intimacy, and family relationships.

Summer School and Continuing Education

David F. Carrithers, MBA, Director

Organization

The Summer School and Continuing Education Office is independent of the academic schools and colleges of the university.

Summer School

The Summer School Office works with the academic schools and colleges of Seattle University to plan, coordinate, and promote all of the university's summer credit course offerings, graduate and undergraduate. Summer school offers undergraduate students an opportunity to enroll in courses that do not fit into their schedules during the rest of the year, those that require travel, and courses presented in unique formats only during the summer. A variety of offerings are in intensive formats, ranging from two to four weeks. These include intersession courses, scheduled between mid-August and mid-September, after most other summer classes have concluded.

The office publishes a summer school bulletin each winter to assist students in planning their summer schedules. Students registered during the previous academic year need not reapply for summer. Those seeking financial aid during the summer must complete a separate application, however. Students seeking admission for summer school must apply through the offices of Undergraduate Admission or Graduate Admission.

Continuing Education

The Continuing Education Office administers the general continuing education (not-for-credit) activities of the university. It plans, promotes and coordinates a variety of workshops, seminars, and not-for-credit courses, including the Elderhostel program. These activities are open to Seattle University students, alumni, and the general public.

Graduate School

Edward J. Jennerich, PhD, Dean

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.

Objectives

Graduate School programs endeavor to offer advanced in-depth education to individuals seeking specialized knowledge and skills in a particular field. Graduate students are encouraged to further develop speaking and writing competencies, and to enhance high-level thinking abilities, including application and synthesis. Expertise in the examination of the ethical and value-laden issues in various fields is an important component of graduate education at Seattle University.

Efforts are made to stimulate students' curiosity, while at the same time providing the investigative skills needed to seek answers to challenging questions. It is hoped that individuals who complete graduate programs will have developed personal and professional competencies that will contribute to the improvement of their field and to the betterment of those whom they serve.

Organization

The dean of the Graduate School and the Graduate Council are responsible for administration of the Graduate School and supervision of all programs leading to the master's, educational specialist, and doctoral degrees. The dean of the Graduate School and the Graduate Council establish and maintain requirements for degrees according to the recommendations of the graduate committee of each school of the university.

The component schools and various departments provide courses of instruction for graduate students, direct their studies, conduct examinations, maintain requirements, and make recommendations. Admission to graduate study is granted through the dean of the Graduate School in consultation with the appropriate graduate program director and the graduate admissions office.

Academic transactions involving registration and awarding of degrees are supervised by the university's registrar.

Most courses are offered in the late afternoon, evenings, and on weekends to accommodate working professionals. Some education classes are held off campus in Auburn and Bellevue. Selected business classes are held in Bellevue and Everett. Daytime classes are held for students in the master in teaching program and in the Institute for Theological Studies.

Degrees Offered

For admission, program requirements, and information on specialized tracks, see the *Graduate Bulletin of Information* or contact the Graduate Admissions Office, Seattle University, Broadway and Madison, Seattle, WA 98122-4460, (206) 296-5900.

Graduate Degrees Offered

Arts and Sciences

Master of Arts in Psychology

Business

Master of Arts in Applied Economics

Master of Business Administration

Master of International Business

Master of Science in Finance

Post-Master's Certificate in Applied Economics

Post-Master's Certificate in Business Administration

Post-Master's Certificate in Finance

Education

Master of Arts in Education

Master of Education

These degrees may be earned in the following programs: adult education and training, counseling, curriculum and instruction, educational administration, student development administration and teaching English to speakers of other languages.

Master in Teaching

Master of Counseling

Educational Specialist

This degree may be earned in educational administration or school psychology.

Doctor of Education

Post-Master's Certificate in Community College Teaching

Post-Master's Certificate in Teaching English to Speakers of Other Languages

Nursing

Master of Science in Nursing

Science and Engineering

Master of Software Engineering

Institute of Public Service

Master of Public Administration

Master of Not-For-Profit Leadership

Institute for Theological Studies

Master of Arts in Pastoral Studies

Master of Arts in Transforming Spirituality

Master of Divinity
Post-Baccalaureate Certificate in Sacred Universe
Post-Master's Certificate in Transforming Spirituality

Law

Juris Doctor (see the *Law Bulletin* for more information)

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Denis S. Ransmeier, MBA, MEd

Vice President for Finance and Administration

James I. Adolphson, BABA

Assistant Vice President for Finance

Joe Conner, MBA

Director of Construction and Facilities Planning

Robert W. Fenn, MPA

Director, Plant Services and Public Safety

Barbara Horgan, MPA

Associate Vice President for Information Services

Steve K. Oh, MBA

Controller

Jerome C. Pederson, MBA

Director, Administrative Services

Anna E. Sarton

Assistant Vice President for Human Resources
and Affirmative Action Officer

Student Development

Henry F. Durand, PhD

Vice President for Student Development

Rick Bird, MBA

Associate Director of Residential Life and
Director of Auxiliary Services

Mary Romer Cline, MDiv

Director, Campus Ministry

Kathryn Courtney, MS

Director, Center for Leadership and Service

Carla Erickson, MA

Director of Pathways

Helen A. LaBouy, MBA

Director, Student and Career Development

William J. Kaiser, EdD

Director, University Sports

Faizi Ghodsi, MBA

Director, International Student Center

Keith Grate, MS

Director, Minority Student Affairs

Nancy Gerou, PhD

Assistant Vice President for Student Development

Judith Lee Sharpe, MA

Director, Residential Life

Howard H. Morishige, PhD

Director, Health Center

Zakiya Stewart, EdD

Director, Learning Center/Disabled Student Resources

University Relations

Linda N. Hanson, BA

Vice President for University Relations

J. Paul Blake, BA

Assistant Vice President for University Relations and
Director, Public Relations

Mark Burnett, MPA

Assistant Vice President for University Relations and
Director, Alumni Relations

Richard K. Francois, MOB

Assistant Vice President for University Relations and
Director of Development

Cecelia Gramblin, BA

Director, University Relations Information Services

William F. LeRoux, SJ, MA, STD

Assistant to the Vice President for University Relations

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.

Amanic Abdelmessih, PhD (1994)

Assistant Professor of Mechanical Engineering
BSc, Alexandria University; MSc, PhD, 1987, Oklahoma State University

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; MS, 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; MS, PhD, 1974, University of Washington

Jeffrey Anderson, PhD (1991)

Assistant 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

Abdolhossein 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

Richard I. Arends, PhD (1995)

William Allen (Boeing) Professor of Education
BS, Eastern Oregon College; MA, University of Iowa; PhD, 1972, University of Oregon

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

Gregg Y. Ayakawa, PhD (1991)

Assistant Professor of Biology
BA, MS, University of Hawaii, PhD, 1983, University of Hawaii

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

James Beaver, JD (1972)

Professor of Law
BA, Wesleyan University; JD, 1958, University of Chicago Law School

Roger Becker, SLIS (1983)

Law Librarian
JD, University of Nebraska, Lincoln; M Law Libr, University of Washington;
SLIS, 1981, Indiana University, Bloomington

Arthur H. Benedict, PhD (1992)

Assistant Professor of Civil and Environmental Engineering
BS, Tufts University; MS, PhD, 1968, Tufts University

Marilyn Berger, JD (1978)

Professor of Law
BS, Cornell University; JD, 1970, University of California, Berkeley

Shawn D. Bird, PhD (1992)

Assistant Professor of Management Information Systems
BGS, University of Iowa; MS, PhD, 1993, Texas Tech University

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; MS, 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

Douglas Branson, LLM (1974)

Professor of Law

BA, University of Notre Dame; JD, Northwestern University; LLM, 1974, University of Virginia

Stephanie Bravmann, PhD (1992)

Assistant Professor of Education

AB, Indiana University; PhD, 1986, University of Washington

Peter A. Brous, PhD (1992)

Assistant 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; MS 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

Robert E. Callahan, PhD (1977)

Program Director, Business/Management

Associate Professor of Business

BS, MBA, Drexel University; PhD, 1977, Case Western Reserve University

Donald Carmichael, LL.M.

Professor of Law

AB, Davidson College; LLB University of Louisville; LL.M., 1964, University of Wisconsin

Emmett H. Carroll, SJ, 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

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

Louis K. Christensen, PhD (1965)

Professor of Music

BA, MA (Mus), PhD, 1961, University of Washington

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

Patricia Hill Clark, JD (1993)

Clinical Assistant Professor of Law

BA, MPA, JD, 1987, University of Washington

Carol Wolfe Clay, MFA (1987)

Assistant 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, SJ, 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; MS, 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

Thomas W. Cunningham, PhD (1959)

Professor of Psychology

BA, Seattle University; MS, 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, MS (1972)

Assistant Professor of Nursing

BS, University of Washington; MS, 1970, Catholic University

Ann N. Dawson, MS (1987)

Instructor of Accounting

BUS, University of Albuquerque; MS, 1989, Golden Gate University

Rosario T. DeGracia, MS (1963)

Associate Professor of Nursing

BSN, University of the Philippines; MS, 1959, Western Reserve University

C. Frederick DeKay, PhD (1980)

Associate Dean, Albers School of Business and Economics

Associate Professor of Economics

BA, University of Washington; PhD, 1979, Johns Hopkins University

Sidney DeLong, JD (1985)

Associate Professor of Law

BA, Vanderbilt University; JD, 1974, Yale Law School

Robert J. Deltete, PhD (1978)

Associate Professor of Philosophy

BA, Seattle University; MA, PhD, 1983, Yale University

Patricia Dilley, JD (1993)

Assistant Professor of Law

BA, Swathmore College; MA University of Pennsylvania; JD, 1986, Georgetown University Law Center

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

Gary J. Erickson, PhD (1985)

Associate Professor of Electrical Engineering

BS, Portland State University; MS, PhD, 1977, University of Wyoming.

Registered Professional Engineer

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

Sharon Filipcic, MN (1992)

Instructor of Nursing

BSN, University of Washington; MN, 1990, University of Washington

Carol K. Fillenberg, PhD (1992)

Associate Professor of Education

BS, MEd, PhD, 1977, Colorado State University

Arthur Fisher, PhD (1987)

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, SJ, 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; MS, PhD, 1992, Northwestern University

Joseph F. Gower, PhD (1991)

Associate Professor of Theology and Religious Studies
BA, University of Scranton; PhD, 1977, University of Notre Dame

Robert B. Grimm, SJ, 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

Kathy Jean Grisham, MN (1976)

Assistant Professor of Nursing
BA, University of Wisconsin; MN, 1967, University of Washington

Kristin E. Guest, PhD (1981)

Associate 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

Margaret M. Haggerty, PhD (1971)

Dean, School of Education
Professor of Education
BS, College of St. Teresa; MA, PhD, 1967, Catholic University

Steen Halling, PhD (1976)

Professor of Psychology
BA, York University; MA, PhD, 1976, Duquesne University

J. Hutchinson Haney, MS (1974)

Assistant Professor of Counseling Education
BA, University of Denver; MS, 1968, University of Arizona

James Harbaugh, SJ, 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 School of Law; MLS,
1991, University of Pittsburgh

Rebecca Hartley, PhD (1990)

Assistant 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; MS, 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

Hildegard R. Hendrickson, PhD (1967)

Program Director, ASBE Accelerated Programs
Professor of Finance
BA, MBA, PhD, 1966, University of Washington

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

Alan L. Hilton, EdD (1985)

Associate Professor of Education
BA, California State University, Sacramento; MS, Santa Clara University;
EdD, 1980, University of Southern California

Max H. Hines, PhD (1993)

Associate Professor of Counselor Preparation
BS, University of Wisconsin, River Falls; MS, 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

Burt C. Hopkins, PhD (1990)

Associate Professor of Philosophy
BA, Allegheny College; MA, Ohio University; PhD, 1988, DePaul University

Patrick Howell, SJ, 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

Kirk Hunt, MBA (1993)

BS, University of California, Davis; MBA, 1992, Seattle University

Nalini Iyer, PhD (1993)

Assistant Professor of English
BA, University of Madras, Stella Maris College, India; MA, PhD, 1993,
Purdue University

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)

Director, Institute for Theological Studies

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 for Academic Administration and

Dean of the Graduate School

Professor of Education

BA, Trenton State College; MS, 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, SJ, 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, 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

Kevin Krycka, PhD (1989)

Assistant Professor of Psychology

BA, Aquinas College; PsyD, 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; MS, 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

Eunhyu Lee, PhD (1992)

Assistant Professor of Marketing
BBA, Seoul National University, Seoul Korea; MBA, Duke University; PhD, 1993, Duke University

Jacqueline Leibsohn, PhD (1991)

Assistant Professor of Education
BA, University of California, San Diego; MS, PhD, 1989, Colorado State University

David J. Leigh, SJ, PhD (1983)

Director, University Core Curriculum
Chair, English Department
Associate Professor of English
BA, MA, Gonzaga University; MA, Regis College, Toronto; PhD, 1972, Yale University

William F. LeRoux, SJ, 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)

Assistant 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; MS, 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

Gregory S. Mason, PhD (1993)

Assistant Professor of Mechanical Engineering
BS, Gonzaga University; MS, Georgia Institute of Technology; PhD, 1992, University of Washington

Daniel B. Matlock, PhD (1984)

Associate Professor of Biology
BS, University of California; MS, PhD, 1978, Oregon State University

Jack D. Mattingly, PhD (1988)

Chair, Mechanical Engineering Department
Associate Professor of Mechanical Engineering
BS, MS, 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, LL.M (1994)

Professor of Law
BS, Northwestern University; JD, DePaul University; LL.M, 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; MS, PhD, 1972, Washington State University

Janet E. Mills, PhD (1984)

Chair, Mathematics Department

Professor of Mathematics

BA, Western Washington State College; PhD, 1970, Pennsylvania State University

Ahmad Mirbagheri, PhD (1983)

Professor of Mathematics

BS, Tehran University; 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, MS, PhD, 1992, University of Wisconsin, Madison

Michael A. Morgan, PhD (1984)

Associate Professor of Physics

BS, MS, 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; MS, 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 Moyer, PhD (1995)

Assistant Professor of Accounting

BS, Lehigh University; MS, 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; MS, 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

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; MS, 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)

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Index of Discipline Codes

(Includes Graduate School; excludes Law School)

ACC	Accounting
ADD	Addiction Studies
ART	Art
BL	Biology
BUSA	Business Administration
CEE	Civil and Environmental Engineering
CH	Chemistry
CJ	Criminal Justice
CLB	Culture and Language Bridge
COM	Communication/Journalism
CSC	Computer Science
DR	Drama
EC	Economics
ED	Education
EDAD	Educational Administration
EDAE	Adult Education
EDCI	Education — Curriculum and Instruction
EDCN	Education — Counseling
EDDR	Educational Leadership
EDMT	Teacher Education
EDSD	Student Development Administration
EDSP	Education — School Psychology
EDTE	Teaching English as Second Language
EE	Electrical Engineering
EN	English
ECS	Ecological Studies
FA	Fine Arts
FIN	Finance
FL	Foreign Language
FR	French
GK	Greek
GR	German
HON	Humanities (Honors)
HS	History
HUM	Humanities (Matteo Ricci College)
IB	International Business
ISC	Interdisciplinary Science (See General Science)
ISS	Interdisciplinary Social Science
IT	Italian
ITSA	Institute for Theological Studies
ITSM	Institute for Theological Studies
JA	Japanese
LS	Liberal Studies
LT	Latin
MDVL	Medieval Studies Minor
MGMT	Management
MKTG	Marketing

MME	Mechanical/Manufacturing Engineering
MS	Military Science
MT	Mathematics
MU	Music
N	Nursing
OP	Operations
PH	Physics
PL	Philosophy
PLS	Political Science
PSY	Psychology
PUB	Public Administration
RS	Theology and Religious Studies
SA	Study Abroad
SC	Sociology
SE	Software Engineering
SP	Spanish
US	Diagnostic Ultrasound
WS	Women's Studies

1994-1995 Academic Year

Fall Quarter 1995

Advance registration for fall 1995 begins	May 21
Tuition and fees due for fall quarter	September 15
All classes begin	September 20
Last day to register or add/drop	September 27
Last day to remove I grades from spring/summer 1995	November 1
Veteran's Day—no classes	November 10
(Sat. Nov. 11 classes will meet as scheduled)	
Advance registration for winter 1996 begins	November 12
Last day to withdraw with W grade	November 16
Thanksgiving—no classes	November 22-25
Last day to remove N grade from previous year	December 1
Closing day for degree applications	December 1
Last class day	December 2
Final examinations	December 4-9
Grades due	December 13
Tuition and fees due for spring	December 15

Winter Quarter 1996

All classes begin	January 3
Last day to register or add/drop	January 10
Martin Luther King's Birthday—no classes	January 15
(Jan. 13 classes will meet as scheduled)	
Last day to remove I grades from fall 1995	February 13
President's Day—no classes	February 16
(Sat., Feb. 17 classes will meet as scheduled)	

Advance registration for spring 1996 begins	February 23
Last day to withdraw with W grade	March 1
Last day to remove N grade from previous year	March 1
Last class day	March 11
Final examinations	March 12-16
Tuition and fees due for spring	March 15
Grades due	March 20

Spring Quarter 1996

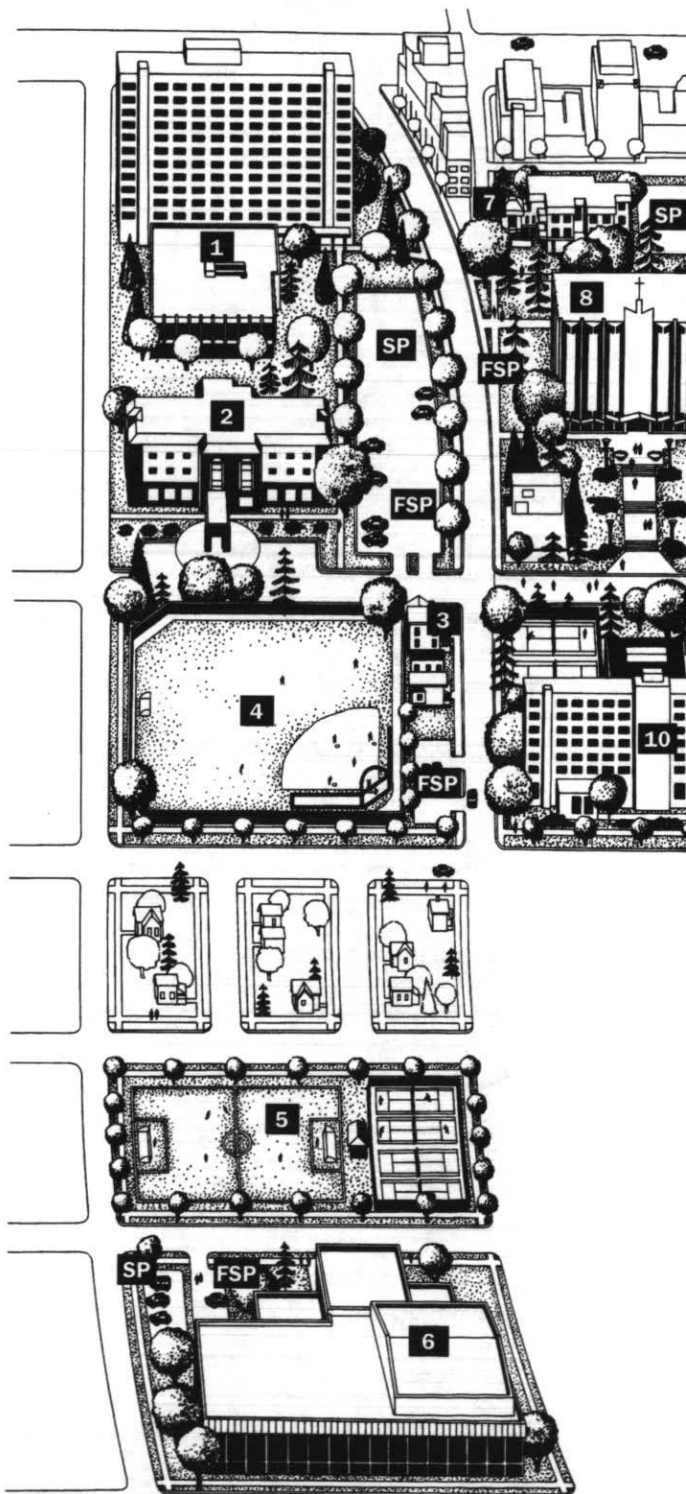
All classes begin	March 25
Last day to register or add/drop	April 1
Good Friday—no classes	April 5
Easter Holiday—No classes	April 6
Last day to remove N grade previous year	May 1
Last day to remove I grades from winter 1996	May 1
Advance registration for summer 1996	May 16-17, 19-20
Advance registration for fall 1996	May 21-24, 26-31
Last day to withdraw with W grade	May 22
Memorial Day—no classes	May 27
Last class day	June 3
Final examinations	June 4-8
Baccalaureate	June 8
Commencement	June 9
Grades due	June 12

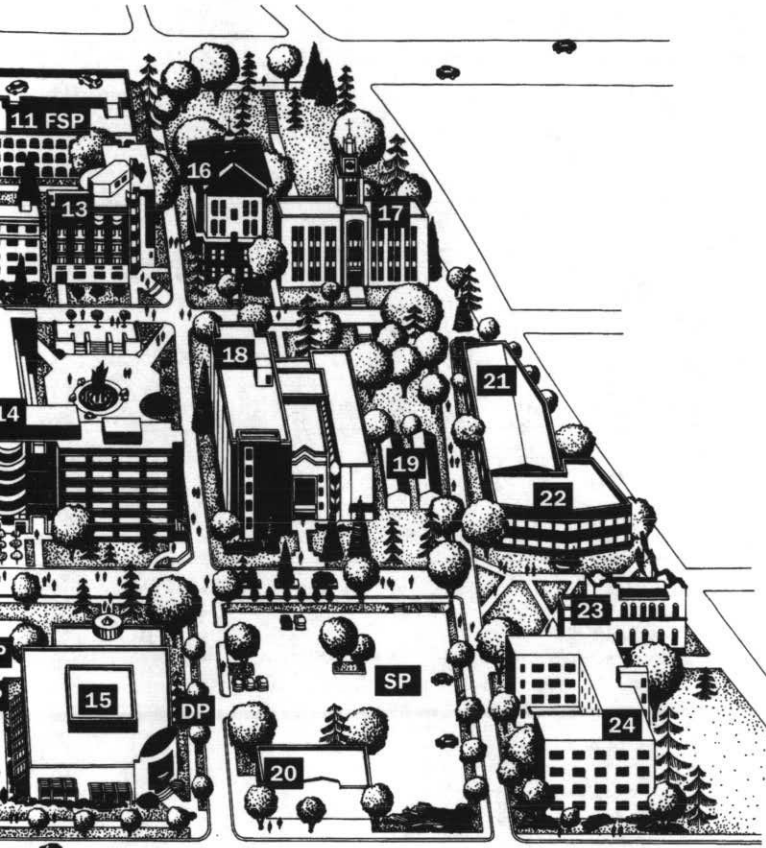
Summer Quarter 1996

Registration continues	June 2-24
Tuition and fees due for summer	June 17
All classes begin	June 17
Last day to add/drop—first and full term	June 24
Last day to withdraw—first term	July 3
Independence Day—no classes	July 4
Classes begin—second term	July 15
Last day to add/drop—second term	July 22
Last day to withdraw—second and full term	July 26
Last day to remove N grade, summer 1995	August 1
Last class day—seven-week session	August 2
Last class day—eight-week session	August 9
Grades due	August 14

Intersession 1996

Classes begin	August 12
Last day to register or add/drop	August 14
Last day to withdraw	August 16
Labor Day—no classes	September 2
Last class day	September 9
Grades due	September 11





Campus Buildings

- ↳ Administration Building 17
- ↳ Arrupe Jesuit Residence 7
- ↳ Bannan Center for
Science and Engineering 14
- ↳ Bellarmine Residence Hall 10
- ↳ Bessie Burton Sullivan Skilled
Nursing Residence 2
- ↳ Broadway Garage (FSP) 11
- ↳ Campion Residence Hall 1
- ↳ Campus Services Building 20
- ↳ Casey Building 13
- ↳ Connolly Center 6
- ↳ East Sports Field 5
- ↳ Fine Arts Building 21
- ↳ Garrand Building 16
- ↳ International Student Center 3
- ↳ Lemieux Library 8
- ↳ Loyola Hall 12
- ↳ Lynn Building 23

- ↳ McGoldrick Center 9
- ↳ Pigott Annex 19
- ↳ Pigott Building 18
- ↳ Student Union Building 22
- ↳ University Services Building 15
- ↳ West Sports Field 4
- ↳ Xavier Residence Hall 24

Parking

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

Disabled Access Key

- ↳ Accessible Entrance and Elevator
- ↳ Accessible Entrance to One Floor

Note: Easy access to upper campus through Pigott Building and Bannan Center for Science and Engineering

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