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SEATTLE UNIVERSITY

1978-79 BULLETIN OF INFORMATION

Vol. 9 No. 4
Summer, 1978

Published Quarterly by Seattle University
Seattle, Washington 98122
Second class postage paid at Seattle, Washington

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 in Information in effect at the time of their matriculation.

Seattle University Bulletin of Information
Editor / Jean Merlino
Assistant Editor / Allen Lee

Photography by Jonathan Mylius / Allen Lee / Steve Celle / Floyd Saiki

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

An Equal Opportunity Employer

SEATTLE UNIVERSITY
SEATTLE, WASHINGTON 98122
(206) 626-6200

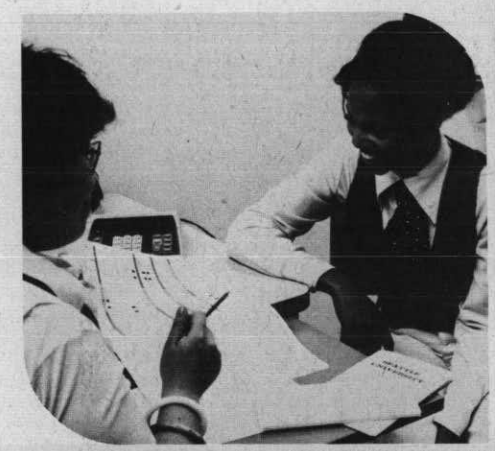
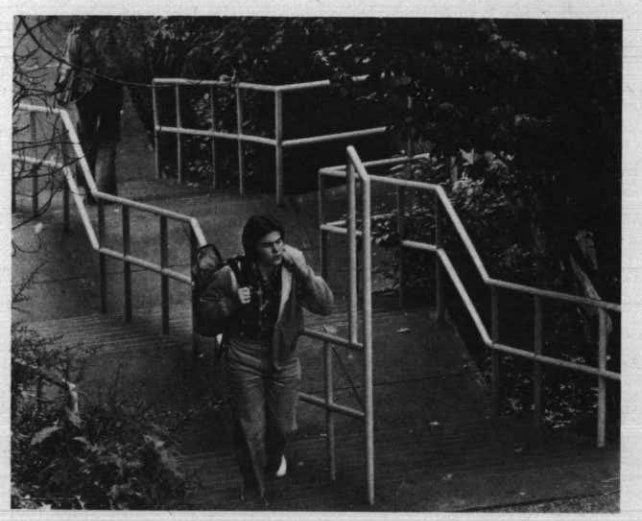


TABLE OF CONTENTS



Winter Quarter 1978

November 14-23	Advance Registration (Winter 1978)
January 4	Registration
January 4	Classes Begin
January 10	Last Day to Register
January 10	Last Day to Add or Change
February 13	Last Day to Remove Incompletes
February 14-24	Advance Registration (Spring 1978)
February 20	Washington's Birthday—No Class
March 1	Last Day to Withdraw with "W"
March 13-15	Final Examinations

Spring Quarter 1978

February 14-24	Advance Registration (Spring 1978)
March 28	Registration
March 28	Classes Begin
April 3	Last Day to Register
April 3	Last Day to Add or Change
April 24 - May 12	Advance Registration (Summer 1978)
May 8	Last Day to Remove Incompletes
May 16	Last Day to Withdraw with 'W'
May 29	Memorial Day—No Class
May 30 - June 2	Final Examinations
June 3	Baccalaureate
June 4	Commencement

Summer Quarter 1978

April 24 - May 12	Advance Registration (Summer 1978)
June 19	Registration
June 19	Classes Begin
June 23	Last Day to Register
June 23	Last Day to Add or Change
July 4	Independence Day—No Class
July 14	Close First Term
July 17	Registration Second Term
August 10-11	Final Examinations

Fall Quarter 1978

September 25	Orientation
September 26	Registration—Continuing Students
September 27	Registration—New Students
September 28	Classes Begin
October 4	Last Day to Register
October 4	Last Day to Add or Change
November 8	Last Day to Remove Incompletes
November 13-22	Advance Registration (Winter 1979)
November 22	Last Day to Withdraw with 'W'
November 23-24	Thanksgiving Holiday—No Class
December 6-8	Final Examinations

Winter Quarter 1979

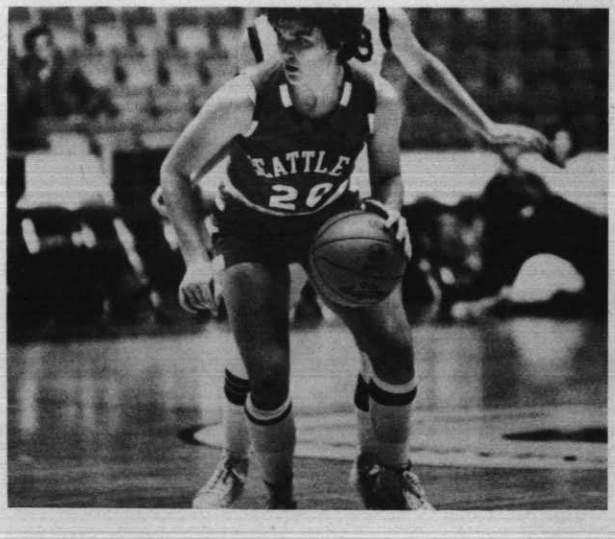
November 13-22	Advance Registration (Winter 1979)
January 3	Registration
January 3	Classes Begin
January 9	Last Day to Register
January 9	Last Day to Add or Change
February 13	Last Day to Remove Incompletes
February 12-22	Advance Registration (Spring 1979)
February 19	Washington's Birthday—No Class
February 23	Last Day to Withdraw with 'W'
March 7-9	Final Examinations

Spring Quarter 1979

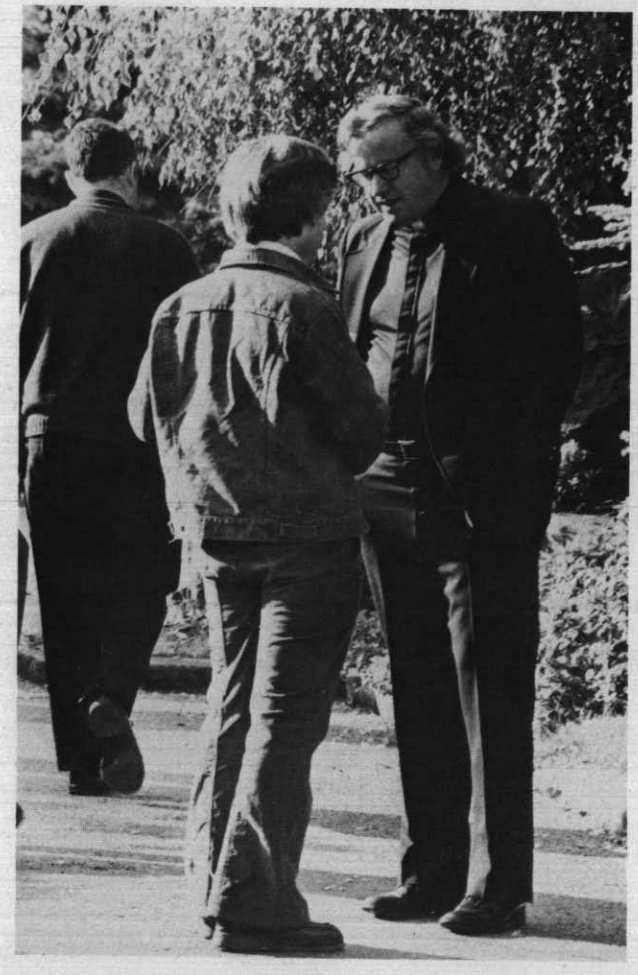
February 12-22	Advance Registration (Spring 1979)
March 26	Registration
March 26	Classes Begin
March 30	Last Day to Register
March 30	Last Day to Add or Change
April 13	Good Friday—No Class
April 23-May 15	Advance Registration (Summer 1979)
May 7	Last Day to Remove Incomplete
May 16	Last Day to Withdraw with 'W'
May 28	Memorial Day—No Class
May 29-June 1	Final Examinations
June 2	Baccalaureate
June 3	Commencement

Summer Quarter 1979

April 23-May 15	Advance Registration (Summer 1979)
June 15, 18	Registration
June 18	Classes Begin
June 22	Last Day to Register
June 22	Last Day to Add or Change
July 4	Independence Day—No Class
July 13	Close of First Term
July 16	Registration Second Term
August 9-10	Final Examinations



CONTENTS



Purpose and Scope

Seattle University, an institution of higher learning, has for its object and purpose:

- the conservation, interpretation and transmission of knowledge, ideas and values;
- the extension of the frontiers of knowledge by critical and exhaustive investigation or experimentation;
- the preparation for some of the professions by thorough and intelligent training in the theory and principles underlying those professions.

As a University, it attains its end not only through the sciences and humanities, including philosophy and theology, but also through its professional schools.

As a University operated under the sponsorship and direction of the members of the Jesuit order:

- it affirms its belief in a support of Christian ideals and values;
- it affirms its belief in the unity and totality of all human knowledge, whether experimental, speculative, or divinely revealed;
- it seeks, by a faculty inspired with the Spirit of Christ and by the creation of a liberal atmosphere inside and outside the classroom, to develop an unbiased, truly liberated and enlightened intelligence in its faculty and student body.

History

Seattle University's development as one of the Pacific Northwest's leading universities is closely interwoven with the history of Seattle and the Pacific Northwest. It is the story of a continuing effort on the part of the University to help meet the educational demands of a burgeoning area.

In 1890, concerned with the problem of providing adequate educational opportunity for the young men of the area, the Rt. Rev. Aegidius Junger bishop of the then Nesqually diocese, asked the Jesuit fathers to establish a school in Seattle. Two pioneer priests, the Rev. Victor Garrand, S.J., and the Rev. Adrian Sweere, S.J., were sent by the Rev. Joseph Cataldo, S.J., superior of the Rocky Mountain Missions, to answer the bishop's request.

They arrived in Seattle early in 1891 and immediately set about choosing a site for the new school. Upon the advice of some of the area's leading figures, they purchased several lots in the Broadway addition on the eastern edge of the young city. Pending construction of their new building, the fathers were asked to begin classes in St. Francis Hall, at what is now Sixth and Spring Streets in downtown Seattle. They assumed administration of the church and school on September 23, 1891, changing the name of the latter to the School of the Immaculate Conception.

In 1893, the cornerstone of the first building on the present campus at Broadway and Madison Streets was laid. The building, now the Garrand Building, served both as a school and as the first Immaculate Conception Church in Seattle. The following year, under the direction of the Rev. Conrad Brusten, S.J., and the Rev. Patrick Mahony, S.J., students were first enrolled in an "Academic" course of studies at the high school level. Four years later, the school received its Articles of Incorporation as an institution of higher learning under the corporate title, Seattle College.

The years that followed were years of struggle for the young institution. The frontier atmosphere of the time was not especially conducive to its growth and it was not until 1900 that the collegiate program was begun with a course in "The Humanities," the forerunner of today's College of Arts and Sciences. In 1907, at the request of former students, evening courses were first offered. The University granted its first bachelors' degrees in the spring of 1909 and its first graduate degree in 1910.

Conditions during the First World War led to the suspension of classes from 1918 until 1922. The latter year they were resumed on a seven-acre campus on Interlaken Boulevard which, with two buildings, had been presented to the college by Mr. and Mrs. Thomas C. McHugh. Both college and high school classes were held on the new campus until 1931 when the college returned to its former Broadway and Madison site.

The first women students were admitted to credit courses in 1933. Seattle University's second academic unit, the School of Education, was added in 1935. In 1937, full accreditation was granted by the Northwest Association of Secondary and Higher Schools. The School of Nursing was established in 1940 and the School of Engineering added in 1941. A fifth major academic unit, the School of Commerce and Finance was initiated in 1945.

On May 28, 1948, full university status was granted by the State of Washington and Seattle College assumed its present title, Seattle University.

Organization

Seattle University is a private, coeducational university conducted by the fathers of the Society of Jesus, popularly known as the Jesuits. It is open to students of all races and denominations and is incorporated under the laws of the State of Washington. One of 28 Jesuit colleges and universities in the United States, it derives its tradition and objectives from the four centuries of academic experience and educational ideals of the Society of Jesus, implemented by nearly two thousand years of Christian tradition and knowledge.

The University is composed of six major academic units:

The College of Arts and Sciences comprises 12 departments. These are English, fine arts, foreign languages, history, journalism, military science, philosophy, political science, psychology, rehabilitation, sociology and theology and religious studies. **Program divisions are: community services, criminal justice/police science, general studies, honors, prelaw and speech.**

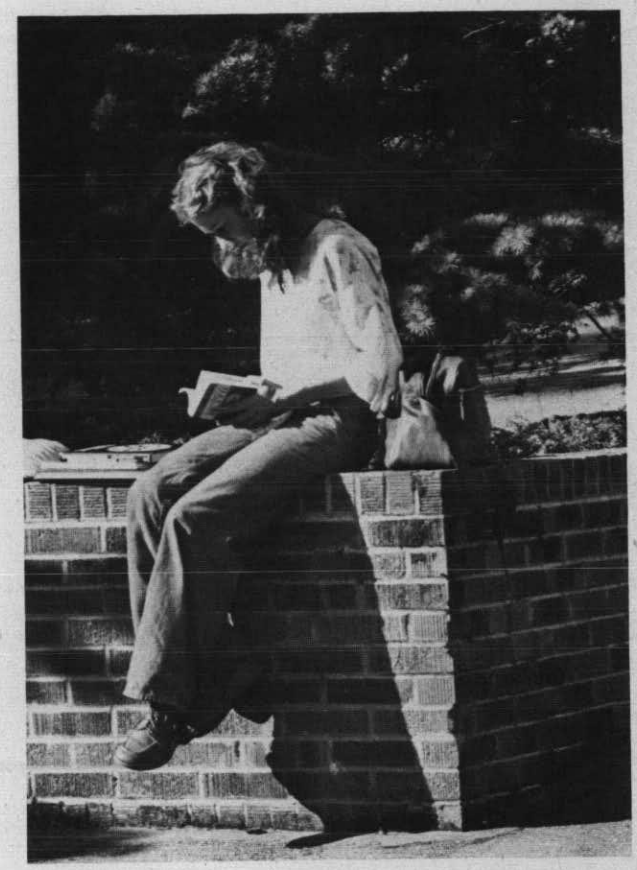
The Albers School of Business offers programs in accounting, economics, finance, general business, management and marketing.

The School of Education offers programs which qualify its students for teaching certificates and principals' credentials issued by the State Department of Public Instruction.

The School of Science and Engineering is composed of the departments of biology, chemistry, mathematics, physics and civil, electrical and mechanical engineering. **Program divisions are: allied health technology, general science, health information, medical technology, predental, premedical and preoptometry studies.**

The School of Nursing offers a baccalaureate program in professional nursing which qualifies students for registration through state licensure.

The Graduate School has programs leading to masters' degrees in business, education, philosophy, public service, rehabilitation, religious education and transportation engineering. A Doctor of Education degree with a major in Educational Leadership is offered.



Accreditation

Seattle University enjoys the highest accreditation and its students are accepted for graduate and advanced study by leading colleges and universities in all parts of the country.

The University is accredited by:

Northwest Association of Schools and Colleges
National League For Nursing
American Chemical Society
Engineering Council for Professional Development
American Assembly of Collegiate Schools of Business
National Council for Accreditation of Teacher Education

is approved by:

Washington State Board of Education
American Medical Association
American Society of Clinical Pathologists
American Medical Record Association
Washington State Board of Nursing

The University is a member of:

American Association of Colleges for Teacher Education, American Council on Education, Association of Higher Education, Association of Jesuit Colleges and Universities, Independent Colleges of Washington, National Commission on Accrediting, Northwest Association of Colleges, Western Interstate Commission for Higher Education.

Campus and the City

Seattle University is located on a 41-acre campus on Seattle's historic First Hill. Within short walking distance are the city's major education, cultural and recreational facilities, business and shopping centers and the Puget Sound waterfront.

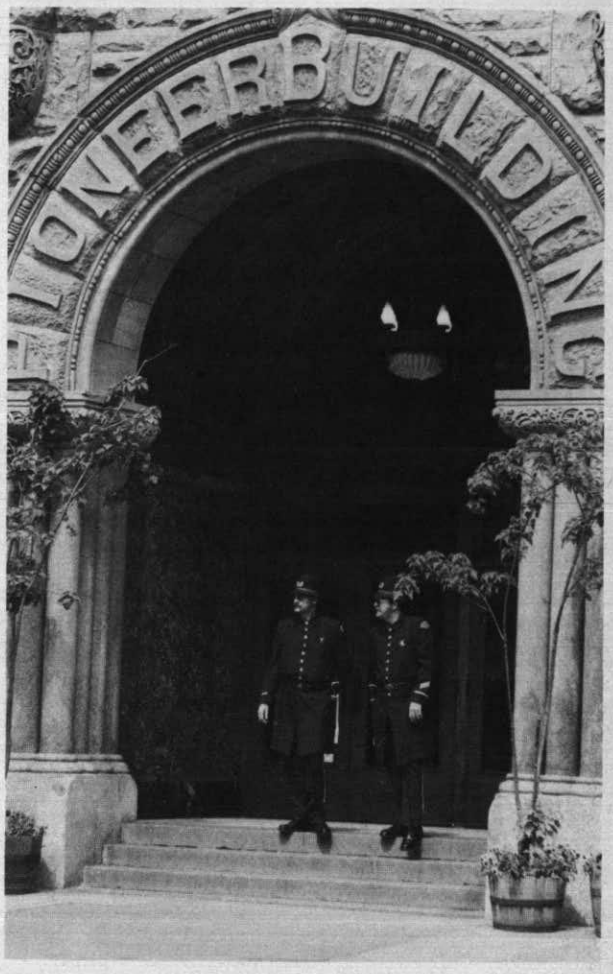
The University's physical facilities serve a current student enrollment of 3,600. Presently, the campus contains 22 buildings, including modern classrooms, student and faculty residences and service units.

The housing facilities available on campus are Bellarmine Hall, Xavier Hall and Campion Tower. Residence halls are coed.

On campus facilities include the A.A. Lemieux Library (1967), the major study and resource center, with seating for 1,100 students. A variety of study areas, including individual carrells, study lounges and conference rooms, are available for the student's comfort and convenience.

The Connolly Center (1969) is the physical education teaching facility. In addition to classroom areas, recreational facilities include two swimming pools, basketball, badminton, tennis and handball courts and a gymnastics and dance area.

The Student Union Building (1953), the Chieftain houses the office of the Vice President for Student Life, student offices, dining, lounge and meeting areas. A selection of auditoriums are available in the A.A. Lemieux Library, the William Pigott (1957) and Thomas J. Bannan (1961) Buildings for films, lectures, meetings and musical presentations.



Other major campus structures include the Liberal Arts Building (1945); Bookstore Building (1964); and Loyola hall, the Jesuit faculty residence.

The McGoldrick Student Development Center,, opened in 1976, includes the Career Planning and Placement Center, Counseling and Testing, the Minority Student Affairs office and the Campus Ministry office.

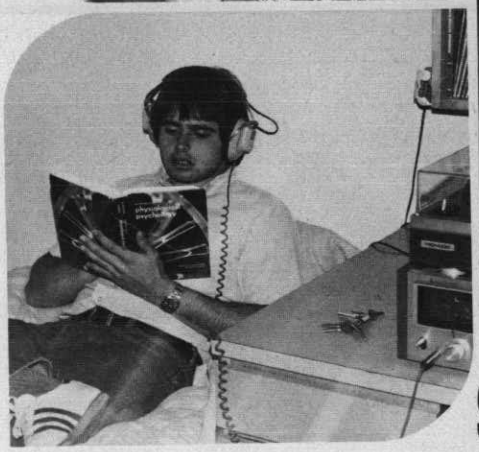
Seattle University is located in a seaport city surrounded by unsurpassed natural beauty. Seattle, the largest city in the Pacific Northwest and one of the 25 largest in the United States, has all the scenic and cultural variety of a metropolitan city with the unique advantage of mountains and water at its back door.

Within city boundaries, Lake Union and Lake Washington provide the opportunity for sailing, boating, water skiing and swimming.

Ski areas are within an hour's drive of the city, with night and weekend skiing during winter months. Easy hikes, with trails marked and guide books available, are popular in the spring and summer months, as well as more difficult hikes for seasoned enthusiasts.

Bicycling has become increasingly popular and trails are set aside in various areas of the city.

Golf Courses, tennis courts, and indoor and outdoor pools for year-round swimming are available in addition to fishing and hunting opportunities.



STUDENT LIFE

COSTS—GENERAL INFORMATION

All charges are due and payable at the time of advanced registration or on registration day. Registration is a coordinated process involving the Registrar, the Controller and the Director of Financial Aid. For further information about financial aid see pages 11-13. Seattle University reserves the right to change its charges without notice prior to the beginning of any quarter or summer session.

A student who has not met his/her financial obligations following registration will have his/her registration cancelled unless allowed to continue under conditions agreed to by the Controller.

Tuition Rates

Undergraduate courses: Fall, Winter, Spring	$61.00 per credit hour
Masters degree programs	
Business	$87.00 per credit hour
Public Administration	$73.00 per credit hour
Rehabilitation	$73.00 per credit hour
Education	$65.00 per credit hour
Arts and Sciences	$65.00 per credit hour
CORPUS Masters	$65.00 per credit hour
Transportation Engineering	$73.00 per credit hour
Doctor of Education	$87.00 per credit hour
Certificate programs	
Alcohol Studies	$44.00 per credit hour
Rehabilitation	$61.00 per credit hour
CORPUS	$65.00 per credit hour
Transportation Engineering	$73.00 per credit hour
Health Information	$61.00 per credit hour
Human Resources Development	$73.00 per credit hour
Auditors tuition	$22.00 per credit hour

A deposit of $50.00 is required of new students admitted for Fall quarter. This deposit is forfeited if a student does not register.

Family Tuition Plan

Two or more members of a family living in the same household and dependent upon a common support and attending the University concurrently may apply for a tuition discount. Further information on the Family Tuition Plan can be obtained from the Financial Aid Office.

Refunds

Withdrawals (full or partial)	
2-10 class days	80 percent
11-15 class days	60 percent
16-20 class days	40 percent
Thereafter	No refund

Refunds are based on the number of consecutive Monday through Friday days from the first day of classes until the official date of withdrawal according to the above schedule. At least 10 class days must elapse between date of withdrawal and date of refund.

Refunds for tuition and residence hall charges to students on financial aid will be applied first to financial aid source and the balance, if any, will be remitted to the student.

Fees-Non-Refundable

Application, undergraduate and graduate (must accompany application form)	$15.00
Application, transient students	$10.00
Late registration, per day	$10.00
Matriculation, undergraduate and graduate	$20.00
Credit by examination (per credit hour)	$10.00
Validation of field experience (per credit hour)	$15.00
Removal of incomplete (per course)	$10.00
Graduation, undergraduate (per degree)	$25.00
Graduation, graduate (per degree)	$50.00
Graduation fees are due at the time of application for graduation, and graduation forms will be released only upon presentation of a receipt.	
Certificate Fee	$10.00
Thesis binding	$15.00
Graduate Record Examination	$ 7.00
Medical Technology Internship (per credit hour)	$ 5.00
Washington Pre-College Tests	$ 7.00

Laboratory Fees

Allied Health: All laboratory courses	$13.00
Biology: All laboratory courses	$13.00
Business 310, 500	$27.00
Chemistry: All laboratory courses	$13.00
Education 330, 528	$ 6.00
Ed 547	$11.00
Ed 441 (internship fee—per section)	$35.00
Engineering:	
ECL 496, 497; EML 496, 497	$ 8.00
All other laboratory courses	$13.00
Health Information:	
HI 401, 402	$ 6.00
HI 440, 441	$11.00
HI 475, 491 (computer)	$16.00
Mathematics 213, 214	$32.00
Music:	
MU 110, 111, 120, 122, 123, 125	$60.00
Piano Practice room, one hour daily per quarter	$ 8.00
Nursing: N 205, 206, 312	$ 6.00
Physics: All laboratory courses	$13.00
Psychology:	
Psy 381, 401	$11.00
Psy 402	$16.00
Psy 390	$32.00

Residence Charges

Room (per academic year)	$875.00
Board (per academic year)*	$638.00
Deposit (refundable)	$ 75.00
(Private room, additional $200.00 per quarter)	

* Based upon 21 meals per week. Other options are also available. Further information can be obtained through the office of the Director of Resident Student Services.

Student Life

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 Division for Student Life is committed to providing programs and services conducive to fostering an educational environment which will assist students in achieving their full potential.

Located in the McGoldrick Student Development Center, the Student Union, the Connolly Center, the Child Care Center, and the three University residence halls, the professionals who comprise the Student Life staff are committed to meeting the developmental needs of Seattle University's diverse student population.

The Dean for Students office coordinates all Student Union programs and serves as a resource for student clubs and organizations. Special leadership training, and programs for women, off-campus and non-traditional students are also administered through the Dean's office, as is the New Student Orientation program each fall.

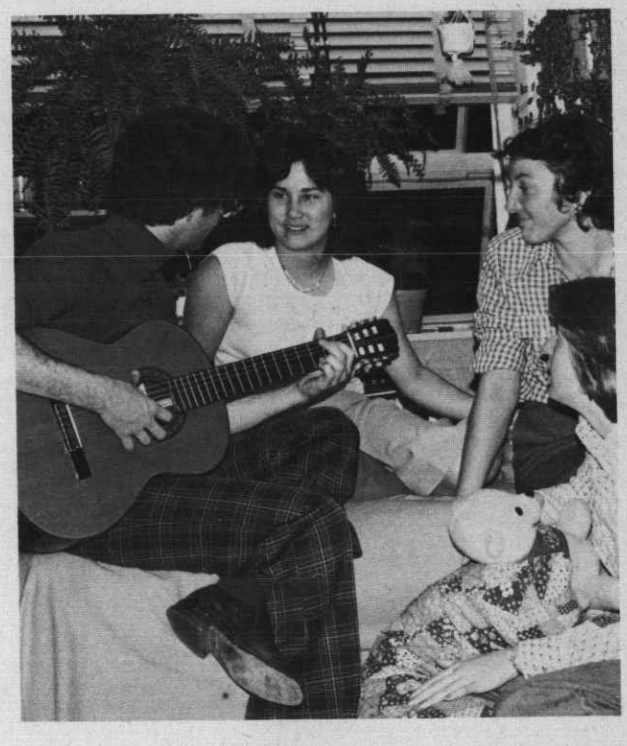
The Counseling and Testing Center offers personal counseling for all students focused on developing self-awareness, and improving individual communication skills and interpersonal relationships. A unique program called Peer Advising for the College Experience, PACE, was launched in 1977 involving a broad spectrum of Seattle University students in the counseling process. Tests of scholastic ability and vocational aptitude are also offered.

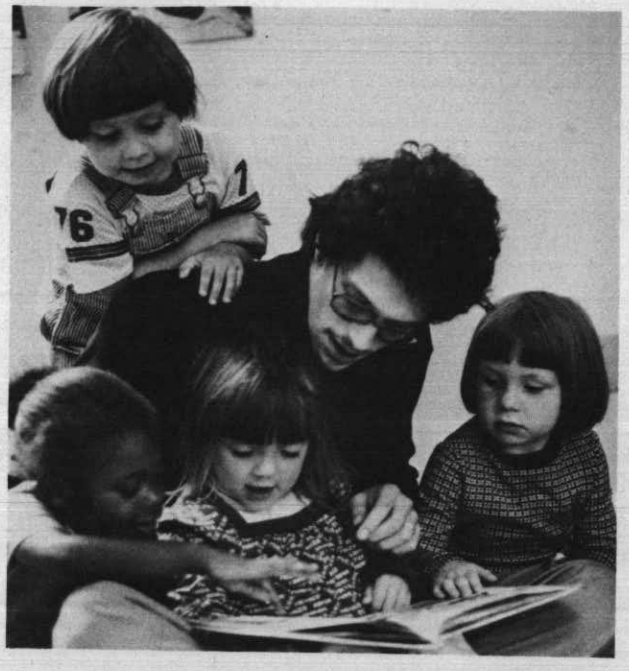
The Career Planning and Placement office makes available career counseling, job referral services, and workshops on resume writing, interviewing, and job-seeking skills to students. Coordination of the part-time work-study student employment program is also accomplished through this office.

The International Student Adviser is the campus liaison for all students from abroad, including those who transfer to Seattle University from other American colleges. It provides a "home base" for these students, facilitating the assimilation of the international students into the University community.

The Minority Student Affairs office serves the personal, academic and cultural needs of the ethnic minority students attending the University, coordinating activities of such student groups as the Native American Club, the Black Student Union, Kapatiran and the Rainbow Coalition. The scope of the Minority Student Affairs office is not limited to the campus perimeter, as it serves as liaison between the University and the many minority communities in Seattle.

The Campus Ministry team is committed to developing the spiritual life of the university community. Besides providing sacramental and liturgical celebrations for Catholics, the team is concerned with nurturing the values of Christian Humanism. Retreats, Searches, Faculty-Staff Renewals, Reach Out programs, individual spiritual direction and off-campus student CARISM communities enable members of the community to enrich and share their spiritual values and religious traditions.





The Child Care Center is open to children from families of students and employees of Seattle University, and supplements the University's community program by also serving children from families within S.U.'s surrounding Central City community.

The Learning Skills Center was instituted at Seattle University with the assistance of a federal funding program to identify and remedy special learning problems for disadvantaged students. Tutorial assistance, self-paced courses in English and mathematics, an academic skills laboratory and career guidance seminars are offered. Disabled student assistance and counseling is also a vital part of the Center's program.

Orientation programs are sponsored each fall to facilitate social and academic adjustment of new freshmen and transfer students. A transfer student orientation is also held during winter and spring quarters.

Student Clubs and Organizations provide Seattle University students with opportunities to develop leadership skills, broaden their social and professional backgrounds, and make a significant contribution to both the University and the community. Student government (ASSU), student publications, preprofessional organizations, service clubs, scholastic honoraries, and community outreach are among the varied groups in which students may choose to participate.

Other Student Services

Academic Advisement is coordinated through the various schools within the University by the deans and department chairpersons in a student's major area. Adviser assignments are normally made during the fall Orientation period.

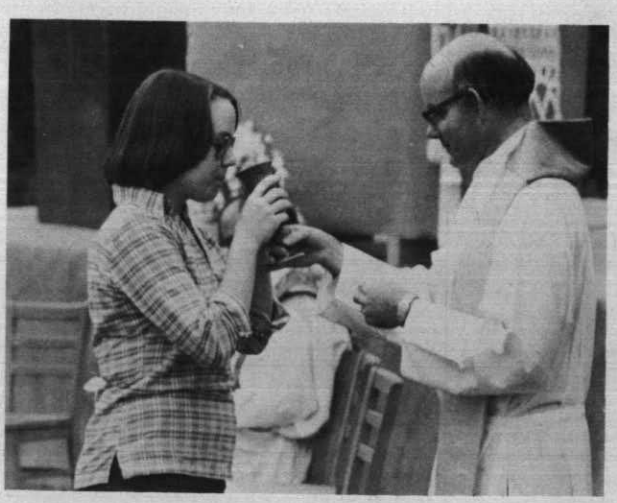
The Student Health Center is open to all regularly-enrolled students. Full-time students and their dependents are also eligible to participate in the University's health insurance program.

Athletics
Seattle University is a member of the National Collegiate Athletic Association, the Association of Intercollegiate Sports for Women and the West Coast Athletic Conference. Its intercollegiate athletic policies are governed by the constitution and by-laws of these associations, and the athletic director administers the intercollegiate and intramural athletic program. Seattle University students compete on the intercollegiate level in basketball, baseball, golf, tennis, soccer and cross country. The women's intercollegiate sports program includes competition in basketball, gymnastics, tennis and volleyball. A comprehensive intramural program is also offered to all students in several formal and informal sports activities. The primary athletic facility on campus is the Connolly Center, a $3.2 million recreation and physical education complex built in 1968.

Housing
Seattle University requires all full-time freshman students under 21 years of age to live in University housing unless they are married, living with parents or unless they have been granted an advance waiver by the Director for Resident Student Services.

Residence Halls
There are three coeducational residence halls on campus which offer convenient living accommodations, lounges and facilities for study and recreation. Bellarmine Hall is a seven-story dormitory built in 1962 which houses over 400 students. The main campus dining room for resident students is located in Bellarmine Hall. Xavier Hall is a smaller living facility accommodating approximately 200 students, and Campion Tower is a modern 12-story dormitory. All residence halls are supervised by experienced resident directors, floor moderators and student resident assistants.

Application for Housing
Requests for on campus student housing are made through the Director for Resident Student Services. A seventy-dollar ($70.00) deposit is required for reservations. See page 8 for housing cost information. Cancellation of reservations must be received by the Director for Resident Student Services no later than August 1, or the deposit will be forfeited. Residents who terminate their stay in University residence halls before the end of the quarter, will be subject to a penalty fee before a refund can be issued.



FINANCIAL AID

Meeting College Costs

The financial aid program at Seattle University assists academically competent and needy students in meeting the expenses of their college education. This assistance is offered to both new and continuing students, may be directed toward normal educational expenses as well as living expenses, and is available to students without racial or religious discrimination.

Seattle University expects its students and their families to make a reasonable contribution toward the expense of a college education. This expected contribution is determined by the financial need analysis of the College Scholarship Service (CSS). Financial need is the difference between the cost of attending college and the amount the student and family is expected to contribute toward that cost. Once the expected student and family contribution is determined, the University will attempt to supplement that contribution with an award of financial aid which may consist of a combination of grants, loans, and/or part-time employment. The Financial Aid Office will determine the student's eligibility for all types of aid and, hopefully, the total cost of attending Seattle University can be met from three sources—student, family, and financial aid.

Types of Financial Aid

Eligible students are likely to receive a combination of three types of aid, commonly called a financial aid "package".

1. GRANT and SCHOLARSHIP — An out-right award that does not require repayment.
2. LOAN — College loan programs allow liberal repayment periods and low interest rates. Repayment normally begins after graduation.
3. EMPLOYMENT — An opportunity to work at a campus job or in a Seattle area business.

Seattle University reserves the right to change its financial aid policy without notice.

How to Apply for Financial Aid

1) Apply for admission to Seattle University. A student must be ACCEPTED to Seattle University before being considered for financial aid.

2) Submit by mail the Financial Aid Form to CSS offices in Berkeley, California or Princeton, New Jersey. Be sure to indicate Seattle University as a recipient of the need analysis which will be calculated from the information you provide on the statement you mail to CSS.

3) Submit the Seattle University Application for Aid to the Seattle University Financial Aid Office.

4) Apply by mail for the Basic Educational Opportunity Grant by using either the CSS Financial Aid Form or a Basic Grant application form. Either form will generate a Student Eligibility Report (SER) by mail to the applicant. Submit all three copies of the SER to the SU Financial Aid Office.

To ensure maximum consideration for financial aid, the Seattle University Financial Aid Office must be ready for consideration by March 1. It is the applicant's responsibility to see that the file contains all necessary documents. Applicants whose files receive documents after the March 1 deadline will be evaluated for need and offered aid on a funds available basis.

Currently enrolled students, new students and transfer students who are enrolling for Fall quarter must observe the March 1 deadline. All applicants for other than Fall quarter should contact the Financial Aid Office to determine the deadline. Continuing students must reapply for financial aid each year. Summer quarter requires a separate application.

Applicants are advised to make and retain copies of all documents submitted.

GRANTS

A limited number of grants are awarded annually to entering new students, transfer students and currently enrolled students. Awards are based on scholastic achievement, financial need, participation in school and community activities and leadership potential. Applicants need not prepare, except as indicated, a separate application for grants. All applicants for financial aid are automatically considered as a part of a financial aid package. Grant awards range from partial to full tuition. Other financial aid may apply to living expenses.

These grants are funded by Seattle University when offered. Subsequently the grant may be designated as funded by a donation to the University.

Honors Program Grants

Tuition grants are offered for one year and are renewable on the performance basis. Applicants should contact the Honors Program chairperson for complete information.

Donated Grants

These are grants made available each year to Seattle University through the generosity of companies and individuals. In addition to the qualifications indicated, academic achievement and financial need are major considerations in selecting recipients.

The Blume Family

The Boeing Company

A grant to students in engineering, physics, mathematics, or business. Renewable.

Alphonse & Mary Brenner and John Brenner Grant Fund

A grant to a deserving Catholic student from the Yakima diocese.

Louella Cook Foundation

Farmers Insurance Group

Renewable grants to University students in business or mathematics.

Alice Fisher Scholarship Fund

A partial grant award to Junior and Senior Nursing students.

Seattle University Guild Endowment Scholarship Fund

Scholarship fund available to all students.

Agnes Handley Memorial Grant

Henry T. Ivers Memorial Scholarship

Laventhol & Horwath
A partial grant award to a student in accounting.

Harry Kinerk Memorial Grant
A partial grant award in memory of the late Professor Harry Kinerk.

Rosemary McCone Memorial

Paul Pigott Memorial

Pay-n-Save Corporation Grant
For a student in marketing.

ROTC Grants Army
United States Army awards to selected high school seniors and college freshmen, sophomores and juniors who enroll in the Army Reserve Officer Training Corps program at Seattle University. Expenses for tuition, books and fees are paid for one, two, three or four years and each student receives an additional $100 per month allowance during the school year. Write to the Seattle University Professor of Military Science for information on application procedures.

Albert A. Schafer Memorial

Seattle First National Bank Minority Scholarship
A scholarship for a minority student enrolled in the School of Business.

Washington Congress of Parents, Teachers and Students Financial Grant
A grant to an incoming first year new student with deep need. Renewable.

Western Gear Foundation
Awarded to students in engineering in honor of the late Phillip L. Bannan, Sr. These grants are renewable if the student maintains a high scholastic standing.

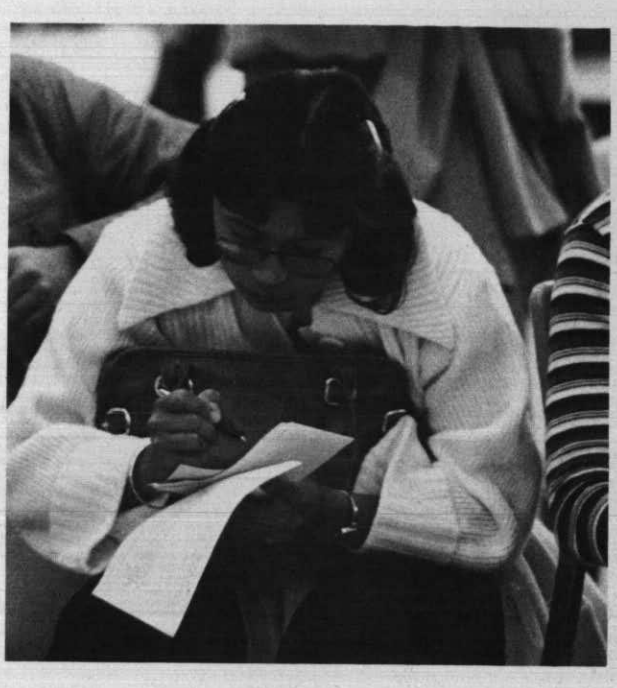
William R. Woods Business Grant
A $1000 award to a deserving upperclassman or graduate. Contact the Dean of the Albers School of Business.

Wyman Youth Trust

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, which may extend over a long period, begin. Loans are an excellent means for the student to assume, but delay, at least a part of the cost of education. This allows the student's family to assume a portion of the education cost without utilizing current income or savings. Students must be United States citizens, a resident of a Trust Territory, or have Immigration Department approved permanent status to be eligible for loans which involve federal funds.

National Direct Student Loan (NDSL)
A long-term loan based on financial need. Eligible students may borrow a total of $5,000 for their undergraduate education or $10,000 for combined undergraduate and graduate education. Repayment begins nine months after the student graduates or leaves school. The annual interest rate is three percent and repayment may extend ten years, but payments may not be less than $30 per month. The NDSL repayment program also includes deferrment provisions and cancellation features.



Federaly Insured Student Loan (FISL)
A long term loan arranged by the student with a lender selected by the student. A bank, credit union, or savings and loan are possible lenders. Students may borrow a total of $7,500 for their undergraduate education or $10,000 for combined undergraduate and graduate education. Repayment begins nine months after the student graduates or leaves school. The annual interest rate is seven per cent and repayment may extend ten years at not less than $360 per year. The FISL is not need-based and may include a provision for the federal government to pay the interest while the student is in school. Early application is advised since processing takes 6 to 8 weeks.

Law Enforcement Education Loan
A long term loan for full time employees of police, corrections agencies, or courts who are also full time students enrolled in a graduate or undergraduate program related to law enforcement. A LEEP loan will provide funds to cover tuition and fees. The Criminal Justice/Police Science and Community Services programs have been approved for this loan. The annual interest rate is seven per cent with a liberal cancellation policy.

Student Short-Term Loans
Students are expected to arrive on registration day with funds required to pay tuition, room and board, and all fees. Late applicants for the Federally Insured Loan may not have received their loan funds, or other causes may prevent a student from having the required funds at registration. The Seattle University Alumni Credit Union may grant a short term loan to these students or their families. These loans, however, must be repaid during the quarter for which they apply. Application for these loans should be made before registration day directly to the Seattle University Alumni Credit Union.

Special Loan Funds

Ravetti Educational Fund

A low-interest loan fund established by Armand J. and Bessie M. Ravetti.

Bing Crosby Loan Fund

A low-interest loan established by the Bing Crosby Foundation.

Alda Medack Loan Fund

A fund established to provide emergency short-term loans.

Government Grants

Several forms of grants are offered as part of the financial aid award package which might also include loans and employment. These are non-repayable federal and state grants as well as Seattle University tuition grants which provide partial tuition. Need rather than grade point average is the primary consideration.

Supplemental Educational Opportunity Grant (SEOG)

Seattle University receives these federal funds to distribute to students with exceptional financial need. SEOG awards usually range from $200 to $1,000 in the initial year and may continue in the subsequent years. SEOG awards are non-repayable. Graduate students are not eligible.

Basic Educational Opportunity Grant (BEOG)

Students considering Seattle University are encouraged to use either the BEOG application form or the CSS financial aid form to apply. In approximately four weeks the federal government returns to the student a Student Eligibility Report (SER) and, regardless of the reported eligibility, it is necessary for the student to forward all three copies of that SER to the Seattle University Financial Aid Office which will determine the BEOG amount, all of which is non-repayable. Up to $1,800 per year may be available. Students currently enrolled at Seattle University and receiving financial aid are required to file a BEOG application and submit the Student Eligibility Report. Graduate students are not eligible.

Nursing Scholarship Grant

Federal non-repayable grants of up to $2,000 per year are available to nursing students with exceptional financial need.

Washington State Need Grant

A grant designed to assist needy and/or disadvantaged Washington state residents in obtaining post-secondary education. Selection is made by the Council for Postsecondary Education from nominations submitted by the University.

Law Enforcement Education Grants

Grants of up to $250 per quarter are available for full time employees of police, corrections agencies, or the courts who are full or part-time students in a program related to law enforcement.

Veterans, Widows & War Orphans Educational 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 Office.

Social Security Assistance

Students may be eligible for Social Security assistance if one of their parents currently receives or had received social security benefits. Eligible students must be between 18-22 years of age, unmarried and attending full time. Information and forms may be obtained from a Social Security office.

Student Employment

The financial aid award frequently includes work-study along with the loan and grant elements. Work-study eligible students may earn funds by being employed under the work-study program. This earned income may be used to pay either tuition or living costs. It is important to note that funds earned during the academic year under the work-study program will not be available at the time of Fall quarter registration and students must plan accordingly.

Work-study eligible students are not required to work nor is employment guaranteed. The Seattle University Career Planning and Placement Office assists the student in obtaining employment on or off campus.

Federal College Work-Study Program

Students who have a determined need per the state formula are offered part-time employment with off campus employers including for profit employers.

Washington State Work-Study Program

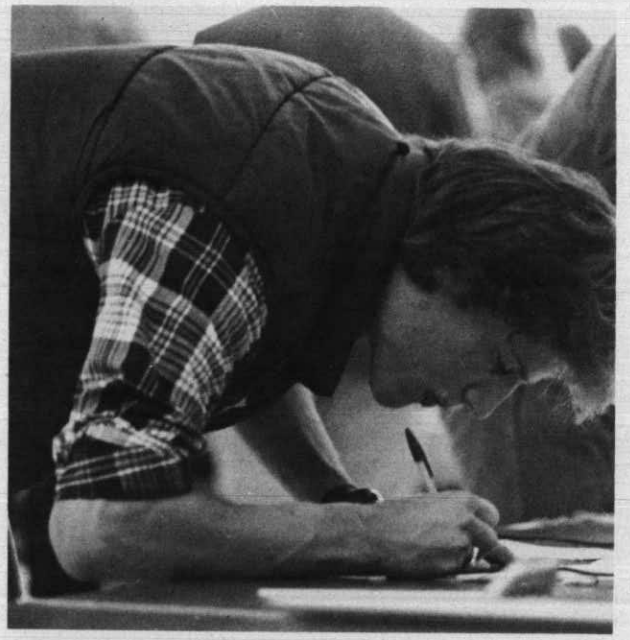
Students who have a determined need per the state formula are offered part-time employment with off campus employers including for profit employers.

Army ROTC Subsistence

$100 per month is paid to all students enrolled in the Army ROTC program during their Junior and Senior years. Write to the Seattle University Professor Military Science for information.

Student Placement Center

The Career Planning and Placement Office maintains a listing of employment available on campus and with Seattle area employers. Literature and instruction in job-seeking skills are provided for students and alumni.



Admission Policy

Seattle University selects for admission those students who have demonstrated in their prior studies an ability to achieve a level of academic performance necessary to earn a degree. University admission policy is established by the Academic Council. It is administered by the Academic Vice President through the Director of Admissions and Registrar. All records submitted by applicants become the property of Seattle University. In addition to the requirements for admission set forth in this section of the bulletin, reference must be made to additional or distinctive requisites in the individual colleges or schools of the University. This information will be found in the section of the bulletin dealing with the specific college or school.

Seattle University offers the opportunities and experiences of higher education to all students equally without regard to race, religion, age, sex, 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, nor in its employment policies or practices.

Dr. Ekkehard Petring 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 may be granted to qualified applicants for any of the four quarters of the academic year. All applicants, excluding transients and audits, must remit the $15 application fee to the University. Inquiries concerning admission should be addressed to the DIRECTOR OF ADMISSIONS, SEATTLE UNIVERSITY, SEATTLE, WASHINGTON 98122.

From Secondary Schools

To be admitted to the University as a regular student an applicant must meet the following entrance requirements:

Have graduated or will graduate from an accredited high school.

Have a high school grade point average of 2.50 or above as measured on the 4.00 scale or rank in the upper 50 per cent of the senior class.

Have completed 16 units of college preparatory courses.

Applicants with a grade point average below 2.50 as computed by the University admissions office will be reviewed by a special board. Applicants with a grade point average below 2.00 will not be admitted to the University on either a regular or probationary status.

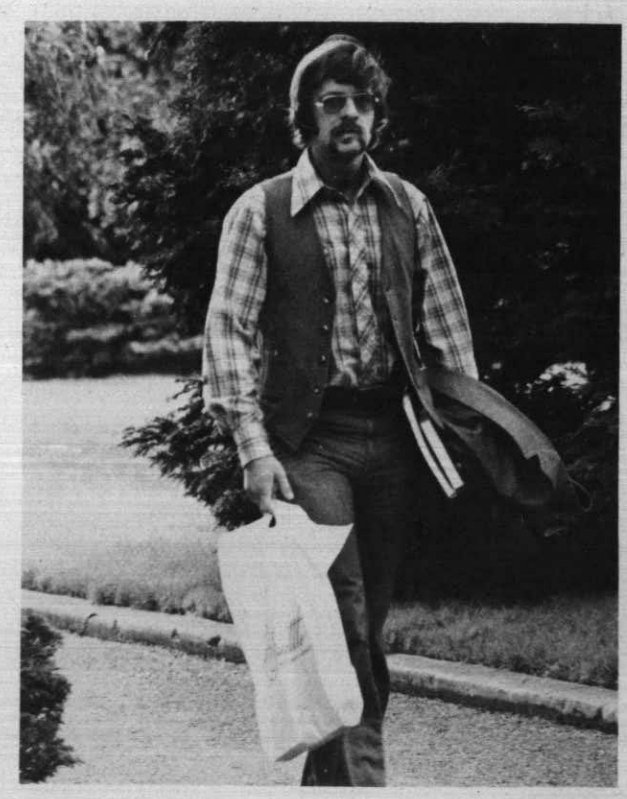
Unit Requirements

Admission is granted subject to graduation from an accredited high school and the applicant must present as part of his/her school record successful completion of a minimum of 16 units. One unit equals one year. These 16 units must be distributed as follows:

English	3
Mathematics (Algebra, Geometry)	2
History	1
Laboratory Science	1
Electives (approved)	9

If the student lacks one of the above required units, he/she may be permitted in some cases, by way of exception, to enter with provisional standing.

Two courses of three or more quarter hours each will be considered equal to one high school unit.



Application

In the State of Washington, application blanks for those wishing to enter as freshmen may be obtained from high school offices. Out of state applicants may obtain forms by writing to the Director of Admissions. To be considered official, records must be forwarded to the University directly by the high school or registrar of a previous school.

In making application for admission the candidate must complete the following procedures after completion of at least the sixth semester:

1. Complete page one of the Washington uniform application for admission and leave the entire form with high school counselor to have the back of the page completed and forwarded directly to the Office of Admissions.
2. Submit a non-refundable application fee of $15 to the Office of Admissions. Make remittances payable to Seattle University.
3. Follow carefully any other instructions which are received with the letter of acceptance.
4. Immediately upon receipt of housing material submit an advance room deposit of $70. This deposit is not refundable after August 1.
   Requests for housing for men and women should be addressed to the Director of Resident Student Services.

Notification of acceptance or refusal will begin December 1 and continue as files are completed. 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 receipt of specified information.

High school students are encouraged to apply before May 1. All applications for admission should be received no later than one month before the beginning of each quarter.

Early Admission

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

Probation

Students admitted on probation will be placed in the General Studies Program under the guidance of the General Studies Director. Probation students must gain regular status by the end of the freshman year or be subject to dismissal from the University.

Placement Examinations

Placement tests in chemistry, mathematics and foreign languages are administered by these departments during Orientation and offer entering freshmen the opportunity to show the extent of their preparation in these areas and enable their department head or adviser to determine the level at which they are ready to begin college work. For additional mathematics placement information, consult the departmental section of this bulletin.

Entrance Examination

In addition to the high school record, it is recommended that candidates for admission to the Freshman class take the Scholastic Aptitude Test of the College Entrance Examination Board or the test of the American College Testing Program or the Washington Pre-College Test and have the scores submitted to the Admissions Office of the University.

Test application forms and information concerning testing centers and test dates may be obtained from high school counselors and principals. Applicants planning to take the College Boards may also write directly to the Educational Testing Service, P.O. Box 1025, Berkeley, California 94701, or P.O. Box 592, Princeton, New Jersey 08540. Students living in the eastern half of the United States should write to the latter address. Applicants planning to take ACT tests may write directly to American College Testing Program, Inc., Iowa City, Iowa. The Washington Pre-College Test will be made available to juniors in all Washington High Schools.

Advanced Placement

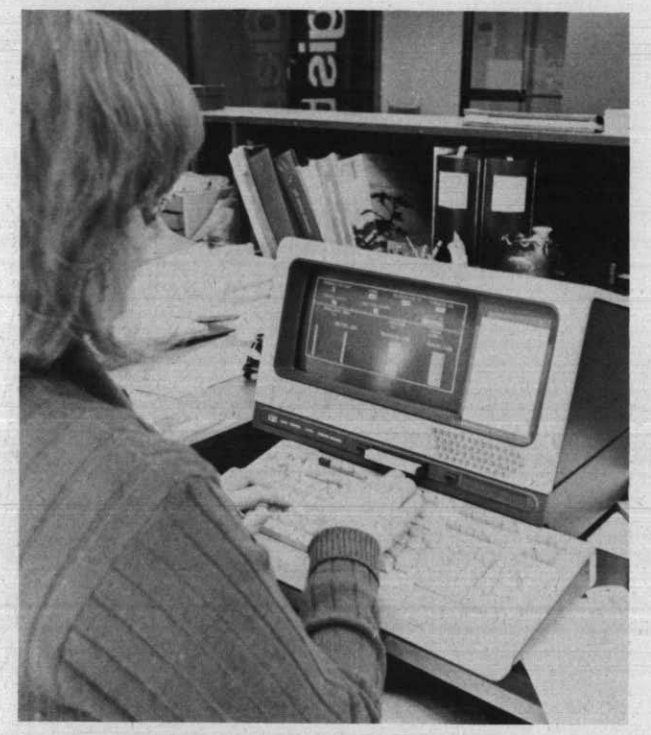
Entering students interested in receiving advanced placement in subject matter other than as set forth above should plan to take the Advanced Placement Tests of the College Entrance Examination Board. Information concerning these tests may be obtained from high school guidance personnel or by writing to Educational Testing Service. The Educational Testing Service will forward test results directly to Seattle University. At the discretion of the dean of the school and the head of the department, a student who has been given advanced placement on the basis of the CEEB Advanced Placement Tests may also be granted 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 Entrance Examination Board. To receive course credit through CLEP, students must submit the test results one month prior to the quarter they wish to enroll.

Special Consideration

Mature students who give exceptional promise may be admitted without rigid adherence to minimum unit requirements even if they have not graduated from high school or have graduated from a non-accredited high school. Decision as to admission in these cases is reserved to the Academic Vice President and the Board of Admissions.

Auditor

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



From Other Universities

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

1. Submit to the Director of Admissions at Seattle University the application form, application fee and one official copy of a transcript from each college previously attended. Failure to furnish previous college records when applying for freshman standing or to supply complete college credentials when applying for advanced standing place students under penalty of immediate dismissal. The University has the option to declare all credit not presented at the time of application as non-transferable.

2. Present a minimum 2.00 academic grade point average for college work attempted prior to transfer. Courses completed at the lowest passing grade are acceptable for transfer, but the dean or department chairman may require that such courses in the major field be repeated. No transfer applicant will be admitted with a grade point average below 2.00.

3. Transfer applicants who have completed less than one full year (45 quarter or 30 semester credits) at another university must fulfill secondary school unit requirements for admission to the Freshman class.

4. Submit a non-refundable application fee of $15 to the Office of Admissions. Make remittances payable to Seattle University.

Students of other colleges or universities who have been placed on probation, suspended, or dismissed will not be considered for admission to Seattle University until at least one calendar year has elapsed. At the end of this period, admission can be granted only by the Board of Admissions. In such cases two letters of recommendation are required.

In assessing the student's record for admission, grades in non-credit courses will not be counted. For work done in institutions whose academic standing is unknown or for work with private teachers, admission and advanced credit will be granted only upon examination. Examination to establish credit for such work may be taken after completion of 15 credits in residence. This credit is granted according to conditions set down under Credit by Examination.

Advanced Standing

For the purpose of guidance and registration, the Academic Evaluation Unit will make tentative evaluation of transfer credits. All evaluations are subject to the approval of the Academic Vice President and the dean of the appropriate school.

The following conditions apply to transfer students in granting credits acceptable to Seattle University:

1. Credit transferred from two-year colleges may be applied to University freshmen and sophomore years only. Transfer of such credit may not exceed 90 quarter credits.

2. For admission with advanced standing no more than 135 quarter credits in academic subjects will be accepted toward a bachelor's degree requiring four years of college study. All transfer students must take at least two courses in their major field of study at Seattle University and meet philosophy and theology requirements. Consult page 18 for listing of required courses in philosophy and theology.

3. Credit earned through extension courses may be accepted if the institution offering such work is a member of the National University Extension Association. Not 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.

4. Credits over 10 years old will be reviewed to determine transferability.

Foreign Students

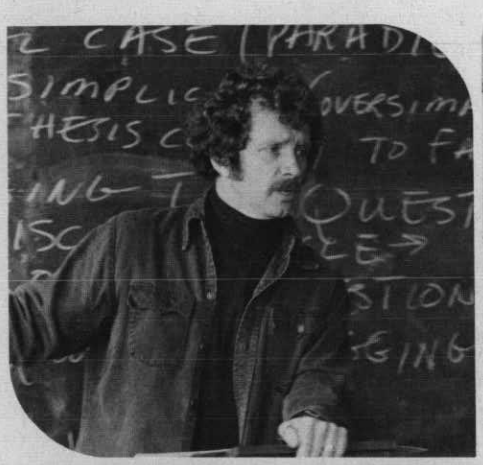
Specific admission requirements and procedures for all foreign students, are listed on the official foreign student application form. The Immigration Form (1-20) necessary to enter the United States is issued to the student upon admission to the University.

Special Students

A special student may take such undergraduate courses as the dean of his/her school may determine. A special student is not eligible for a degree until he/she fulfills the requirements for admission to the college in which he/she is enrolled. He/she may then become a regular student.

Transient Students

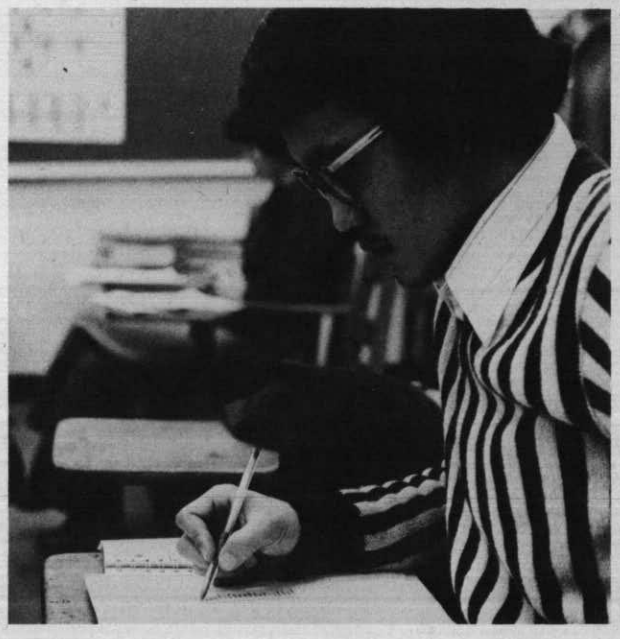
Admission as a transient student is granted to a student in good standing in any recognized college who meets Seattle University's admission standards and who is taking work to be transferred to his/her college. By special arrangement superior high school students may be admitted to specific courses in a transient status. University credit will be awarded for successful completion of the course to be applied toward a degree after the student enrolls in a college or university.



ACADEMICS

The CORE CURRICULUM

Students at Seattle University take a basic program of liberal studies courses called the 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.



Required Sequences

ENGLISH SEQUENCE _____ 10 credits

En 100	Freshman English _____	5 credits

and any one of the following:

En 132	Masterpieces of American Literature _____	5 credits
En 133	Masterpieces of World Literature _____	5 credits
En 134	Masterpieces of British Literature _____	5 credits
En 220	Introduction to Poetry _____	5 credits
En 230	Introduction to Fiction _____	5 credits
En 240	Introduction to Drama _____	5 credits
En 383	Masterpieces of Black Literature _____	5 credits

HISTORY SEQUENCE _____ 10 credits

Students have the option to select one of the following:

Plan 1
Hs 104 and Hs 105

Plan 2
Hs 100 and Hs 105

Plan 3
Hs 100 and any one of the following: Hs 231, 251, 261, 271, 281, 349

MATHEMATICS/SCIENCE SEQUENCE _____ 10 credits

Any two 5-credit courses in mathematics, biology, chemistry or physics, which the student is qualified to take, will fulfill the mathematics/science requirement. The following courses are recommended for non-majors in mathematics and the sciences:

Bl 101	Life Science _____	5 credits
Ch 100	Principles of the Physical Sciences _____	5 credits
Mt 175	Mathematics for Liberal Arts Students _____	5 credits
Ph 101	Energy Sources and Uses _____	5 credits
Ph 110	Introduction to Astronomy of the Solar System _____	5 credits

Business, mathematics, engineering and science majors should consult their departmental programs for mathematics/science requirements.

PHILOSOPHY SEQUENCE _____ 15 credits

Pl 110	Philosophical Problems — The World _____	5 credits
Pl 220	Philosophical Problems — Man _____	5 credits

and any other 5-credit course in philosophy which the student is qualified to take. Consult the course listing in the Philosophy department section of this bulletin for third course options.

Transfer students with junior or senior standing (90 or more credits) are usually required to take two philosophy courses after transferring. Transfer students with freshman or sophomore standing (89 or fewer credits) are usually required to take three philosophy courses.

SOCIAL SCIENCE SEQUENCE _____ 10 credits

Any two 5-credit courses in economics, political science, psychology and/or sociology for which the student is qualified. The following are recommended:

Cs 321	Asian-American Experience	5 credits
Ec 100	Nature of Economic Society	5 credits
Ec 271	Principles of Economics I _____	5 credits
Ec 272	Principles of Economics II _____	5 credits
Ec 273	American Economic History	5 credits
Ec 371	History of Economic Thought	5 credits
Pls 160	American National Government _____	5 credits
Pls 200	Comparative European Democracies _____	5 credits
Pls 214	Government and the Economy _____	5 credits
Pls 242	American Political Thought _____	5 credits
Pls 249	Introduction to International Politics _____	5 credits
Pls 375	Minority Politics in the United States _____	5 credits
Pls 440	Comparative Politics Asia _____	5 credits
Pls 441	Comparative African Systems _____	5 credits
Psy 100	Introductory Psychology _____	5 credits
Psy 210	Personality Adjustment _____	5 credits
Psy 315	Abnormal Psychology _____	5 credits
Psy 322	Psychology of Growth and Development _____	5 credits

Sc 101	Fundamentals of Sociology I	5 credits
Sc 200	Perspectives in Social Psychology	5 credits
Sc 266	Interracial and Interethnic Relations	5 credits
Sc 302	The Black People's Social Movement	5 credits

(Students in the School of Education substitute Ed 322 for Psy 322.)

THEOLOGY AND RELIGIOUS STUDIES SEQUENCE — 10 credits

Students should choose one 5-credit course from each of the two theology and religious studies areas listed below:

AREA 1		
Rs 200	Judaeo Christian Origins	5 credits
Rs 210	Synoptic Gospels	5 credits
Rs 215	Johannine Theology	5 credits
Rs 220	Pauline Theology	5 credits
Rs 240	Prophetic and Wisdom Literature of the Old Testament	5 credits
Rs 289	Comparative Religion	5 credits
Rs 290	Religious Experience, East and West	5 credits
AREA 2		
Rs 320	Fundamental Themes in Theology	5 credits
Rs 330	The Problem of God	5 credits
Rs 335	Christ and Modern Man	5 credits
Rs 340	Theology of Man	5 credits
Rs 344	Church as Community	5 credits
Rs 347	Black Religious Experience	5 credits
Rs 350	Perspective of Christian Hope	5 credits
Rs 420	Christian Sacraments	5 credits
Rs 433	Theology of Human Sexuality and of Marriage	5 credits
Rs 450	Theology of Liberation	5 credits
Rs 475	Contemporary Christian Morality	5 credits
Rs 476	Social Theology	5 credits
Rs 477	Christian Response to Some Socio-Legal Problems	5 credits
Rs 490	Special Topics - Core	3-5 credits

Students should begin their theology sequence in the Sophomore Year or later and should have taken some philosophy courses.

Transfer students with junior or senior standing (90 or more credits) must take one theology course. Transfer students with freshman or sophomore standing (89 or fewer credits) must take two theology courses.

Core Exceptions for Science, Engineering and Business

Science and engineering students should consult the section of the bulletin giving their programs of studies for their history and social science requirements.

Students in the Albers School of Business must consult that section of this bulletin for required courses.

Academic Regulations

Each student is responsible for informing himself/herself of the academic regulations and requirements set forth in this Bulletin of Information and for revisions of same as posted on campus bulletin boards or in other official publications of the University. Failure to meet the requirements or comply with regulations because of lack of knowledge thereof does not excuse the student from being subject to them.

A student's program of study must be approved by a member of the faculty, usually the adviser, at registration. However, such approval does not give official sanction to any failure to meet University requirements nor does it free the student of that responsibility necessary to intelligent personal choice.

The Academic Council has discretionary powers for all cases not covered by the rules and regulations listed in this section. The University reserves the right to cancel any class which does not meet the required minimum enrollment. 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 change any requirement and to ask a student to withdraw at any time. No person is allowed to attend class unless officially enrolled with appropriate fees paid.

Regulations in this bulletin are supplemented by policy memoranda which set forth policy in greater detail.

The policy of Seattle University on the right of student access to his/her educational record and on confidentiality of information conforms to current public law. The full statement of policy is available for inspection in the Office of the Registrar.

Academic Terms

ACADEMIC AVERAGE — Computed by the University for each applicant to determine the quality of high school work in academic subjects such as English, algebra, history, and laboratory sciences. Non-academic high school subjects such as music, physical education, and typewriting are excluded when this average is computed.

ACCREDITED — Certified as fulfilling standards set up by regional accrediting agencies. Indicates that course work is acceptable to other colleges or universities.

ADVANCED PLACEMENT — Admission of freshmen to courses beyond the beginning level. Granted to students who pass designated advanced placement tests.

ADVANCED STANDING — Granted to transfer students who have previous college work which is acceptable to Seattle University.

ADVISER — A member of the faculty designated to assist the student in planning a program of study.

AUDITOR — A student who is permitted to register for courses without obtaining college credit.

BACCALAUREATE MASS — Official academic function of Commencement Week for those graduating.

CEU - CONTINUING EDUCATION UNIT — A type of credit assigned for courses not a part of a regular degree program; one CEU equals ten hours of formal classroom instruction.

CHANGE OF MAJOR — Procedure whereby student declares his intention to change from one subject field into another within the same division (school or college) of the University.

CHANGE OF SCHOOL — Procedure whereby student obtains permission to change from one school of the University into another.

COLLEGE — One of the seven academic divisions of Seattle University.

CORE CURRICULUM — That body of subject matter common to programs of study and the foundation of Seattle University's liberal education.

COMPREHENSIVE EXAMINATION — An examination covering the entire scope of the student's major area of study.

COREQUISITE — A course which must be taken in the same quarter with another specified course.

COURSE OF INSTRUCTION — A complete set of lectures, quizzes, recitations, student exercises, laboratory periods, and examinations on a given subject.

COURSE OF STUDY — See program of study.

CREDIT BY EXAMINATION — Procedure to obtain credit for work done in private study or for work not otherwise acceptable to the University.

CREDIT HOUR — The unit of instruction used in computing University graduation requirements.

CUMULATIVE GRADE POINT AVERAGE — The quality measurement of each student's university work computed by dividing total quality points by total credits attempted.

CURRICULUM — An established program of study leading toward a degree in a particular subject field.

DEFICIENCY — Lack of credit in a course required for graduation, or lack of credit in subject matter required for entrance.

DEGREE — Awarded by the University upon successful completion of a specific program of study.

DEPARTMENT — A division of a school or college of the University consisting of those faculty members who are actively engaged in instruction, administrative or research work in a specific subject field under the direction of a chairman.

ELECTIVE — A subject chosen by the student not demanded by his/her program of study.

FIFTH YEAR — Status of those with bachelor's degree taking additional college work in any undergraduate area of study with no specific degree objective; may be seeking teacher certification.

FULL-TIME — For academic reporting purposes, 12 credits is considered full-time for undergraduate students and nine credits full-time for graduate students.

GENERAL STUDIES — Program for students who have a wide range of interest and want a broad liberal arts education, as well as students who have not yet decided upon a traditional major.

GRADE POINT AVERAGE — An average computed on the basis of numerical values assigned to the letter grades received by students.

GRADUATE STUDENT — One who has been admitted to Graduate School to pursue a specific advanced degree program or post master's program.

HUMANITIES — Cultural subjects as distinguished from social sciences (history, psychology, or sociology) and physical sciences.

I-20 FORM — United States immigration Form No. 20 issued by the University to students from foreign countries who have been accepted for admission.

INTERNSHIP — A period of one quarter or one year during which a student gains experience in an actual work situation. The length of internship and type of agency to which a student is assigned are determined by his/her major or some special interest within the major field.

LOW SCHOLARSHIP LIST — A warning list circulated to deans each term showing students whose poor academic work in one quarter if not immediately improved will result in probation or dismissal.

MAJOR — The specific field of study selected by a student.

MATRICULATE — Enrollment at the University for the first time as a regular student to pursue a degree or professional program.

MINOR — The secondary field of concentration selected by a student.

PART-TIME — For academic reporting purposes, less than 12 credits is considered part-time for undergraduate students and less than nine credits part-time for graduate students.

PERMANENT RECORD — The University record (transcript) of all courses for which a student registers.

PLACEMENT TESTS — Tests in a specific field administered to entering students to determine the level of achievement before assigning college courses.

PREREQUISITE — A course which must be complete before a student is permitted to register for a more advanced course.

PROBATION — Status resulting from academic performance below the minimum university level.

PROVISIONAL STUDENT — One who is admitted with an entrance requirement unsatisfied.

PROGRAM OF STUDY — The curriculum in a given subject matter field. A series of courses assigned by schools and departments of the University which must be completed by the student before a degree is awarded.

QUARTER — Term of instruction during which a student completes a series of courses. There are three quarters in a regular academic year, Fall, Winter and Spring. The summer quarter extends from June to August.

READMISSION — Procedure whereby a student who has not been in attendance for one or more quarters registers for continued course work.

REGISTRATION — Official enrollment in the University. Process in which student selects courses each quarter.

REGULAR STUDENT — A fully matriculated student pursuing a degree program.

SPECIAL STUDENT — A student taking course work is not applicable toward a degree until regular standing is achieved.

SCHOOL — See College.

SPECIFIC CURRICULUM — In addition to the core curriculum required of all students, each individual student selects a specific curriculum or field of concentration. These curricula are offered by the schools of the University according to degree requirements.

TRANSCRIPT — A copy of the student's permanent record.

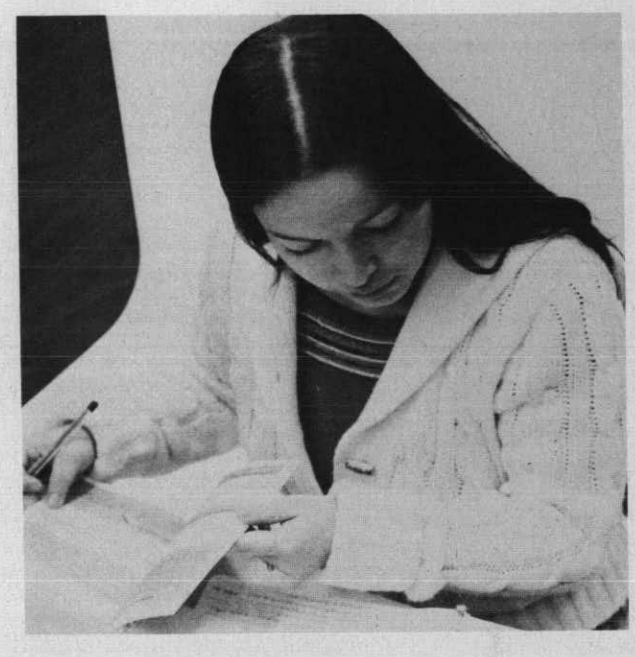
TRANSFER CREDIT — Credit awarded to a student for work completed at another college or university.

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

WITHDRAWAL — Procedure whereby student notifies the University that he/she will not complete course(s) for which he/she is registered.

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.



Classification of Students

Regular undergraduate students are classified as follows:

Freshmen— 0-44 credits completed
Sophomore— 45-89 credits completed
Junior— 90-134 credits completed
Senior— 135 or more credits completed

Other students are classified as follows:

5th year— post baccalaureate students not seeking an advanced degree
Graduate— post baccalaureate students admitted to Graduate School for a master's or doctorate degree program
Special— an undergraduate student awaiting approval for regular status
Transients— non-matriculated students registering for one or two quarters only
Auditors— non-matriculated students registered for audit only not for regularly graded credit

Concurrent Enrollment at Two Colleges

University regulations require students to seek written permission to be enrolled at another institution simultaneously with enrollment here. Credits completed at a second institution are not transferable unless prior to enrolling elsewhere a faculty action authorizing dual enrollment is approved by the Dean and Registrar.

Course Numbering System

The course numbering system at Seattle University is as follows:

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 required to register for courses numbered 500 or above.

Credit by Examination

Examinations for advanced 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. Student must be currently registered at Seattle University.
2. No student may take an advanced credit examination in a course in which he has already been registered.
3. The maximum number of credits obtainable by advanced credit examination is 30, not more than 15 of which 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 he has previously received credit.
6. No student will be permitted to repeat an examination for advanced credit.
7. No student may take examinations for more than 15 advanced credits in any one quarter.
8. No student may receive advanced credit by examination for lower division foreign language courses in his/her native language or from earlier schooling.
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 to be given by examination.
11. No credit by examination may be given for physical education activity courses.

Credit Load

The normal load for undergraduates is 15 credits per quarter. No student may carry excess credit hours without permission from the dean of the school.

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

Dismissal

Students who have three quarters at Seattle University with 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 or NC grades, are subject to dismissal. If dismissed for academic reasons, request for reconsideration must be filed in writing with the dean in accordance with the policy of the individual college.

A student withdrawing voluntarily from the University is entitled to a statement of honorable dismissal if he/she is not liable to dismissal on account of scholarship, absence, breach of discipline, or financial indebtedness to the University.

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 absenting themselves from a scheduled examination without justifiable cause will receive a failing grade for the examination.

Forgiveness Policy

A forgiveness policy making it possible for former SU students with poor academic records to resume their studies as adults without the encumbrance of poor grades earned previously became effective Fall Quarter, 1977. After being absent from school for at least 8 years, former SU students in undergraduate programs may apply for forgiveness only upon readmission or during the first quarter resumed at SU. For further information consult the Registrar.

Grade Changes

Once a grade is recorded it can be changed only by the Academic Vice President on the written faculty action sheet completed by the instructor and countersigned by the department chairman and dean of the school. Errors in grades must be reported within six months of date of issue of grade reports.

Grade Point

The University uses a letter grade 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 quality points
B	.....	3 quality points
C	.....	2 quality points
D	.....	1 quality point
E	.....	0 quality points

The grades of CR, NC, I, W, S, N, Y, or YW have no negative quality point value.

Each student is required to maintain a C average, which is equivalent to a 2.00 grade point average. The grade point average is computed by dividing the total number of quality points achieved in one quarter by the total number of credit hours attempted in which the student earns a letter grade A, B, C, D or E.

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.

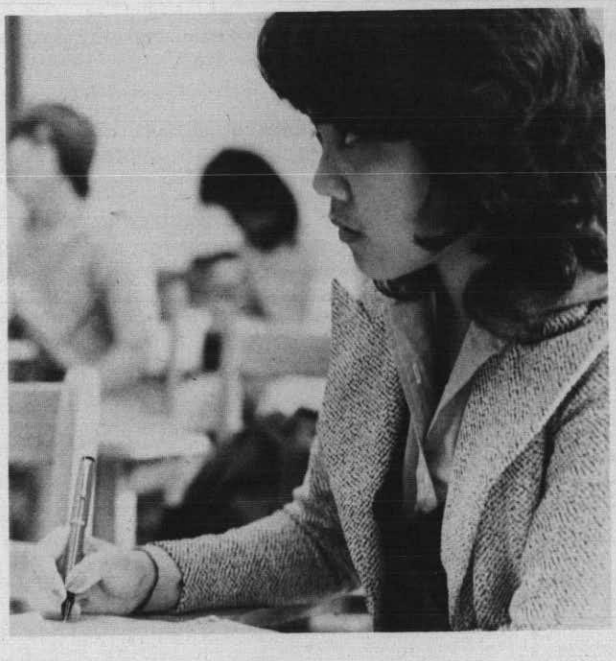
Grading System

The University follows the letter grading system shown below.

Grade	Descriptive Value
A	**Superior student** — shows ability to use factual knowledge in reaching independent conclusions and can synthesize facts into a logical and coherent pattern; shows interest in relating collateral reading to the principles developed in course work; scholarship exceeds requirements.
B	**Above average student** — knowledge is very good, scholarship meets all requirements, information is complete but not detailed.
C	**Average student** — knowledge is good; scholarship meets assignments, but information is incomplete.
D	**Below average student** — knowledge is fair, scholarship does not meet assignments; essential information is lacking or false information given.
E	**Failing student.**
W	**Withdrawal** — official withdrawal.
CR	**Credit** — grade assigned under credit/no credit option if work meets or is above minimum passing level.
NC	**No Credit** — grade assigned under credit/no credit option if work is below minimum passing level, or grade assigned by Registrar when student registers, does not withdraw yet does not complete the course.
I	**Incomplete** — A temporary grade assigned at the discretion of the instructor in case a student has been in attendance and has done satisfactory work until within two weeks of the end of the quarter, provided the student has furnished proof satisfactory to the instructor that the work cannot be completed because of illness or other serious circumstances beyond the student's control. When the instructor assigns an I grade, a **Notice of Incomplete Grade Form** must be filed with the Dean, Registrar, student and instructor. This form will state what work remains to be completed to obtain a final grade or, if this further work is not completed, what grade is to be placed on the permanent record. The student has until six weeks after the beginning of the next quarter, regardless of whether the student is enrolled, to complete the specified work. If no further work is completed, the I grade will be converted to a letter grade, in accord with the instructor's directions on the **Notice of Incomplete Grade Form** previously filed. If the specified work has been completed, the student must file an official Incomplete Removal Form and pay the required fee to have the final grade posted to the transcript. However, if the grade is an E the final grade will be posted without student payment. I grades assigned spring quarter must be removed by six weeks after the beginning of the fall quarter. Prior to the end of the I-removal period, the Dean may notify the Registrar of serious reasons that require an extension of this deadline to a time certain, but under no circumstances may this be extended beyond one calendar year from the date of initial posting of the I. While on the transcript, I grades will carry no penalty; i.e., they will not be counted in credit or grade point average computations. This supersedes the regulations on I grades appearing on Page 24 of the 1977-78 Bulletin of Information.
N	**No Grade**—a suspended grade for courses in which work is not scheduled for completion until after the quarter closes, i.e. thesis or research courses at the graduate level. It is the responsibility of the student to arrange with the supervising instructor to remove the N within one calendar year of the quarter the grade is assigned, per the schedule given below. Once the closing date has passed, re-registration and payment of regular tuition is required in order to obtain credit for the work completed.

N Grades Received	Must be Removed Before
Summer term	August 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

S	**Satisfactory** — a satisfactory grade which may be given for thesis, research, independent study, off-campus courses, field experience type courses and in non-credit courses.
Y	**Audit** — course for which no credit is given.
YW	**Audit Withdrawal** — registered but did not attend through end of course.
M	**Missing** — symbol used on grade reports to inform student that grade has not been received from instructor.



Honor Roll

Undergraduate students registered for 12 or more credits who achieve a 3.50 or higher grade point average for any quarter will be included on the honors list published by the Registrar. The privilege of attending a single lecture or all sessions of classes for which they are not registered is granted to honor roll students with the permission of the teacher.

Credit/No Credit Option

Undergraduate students may elect a credit/no credit option in elective courses under the following conditions:

1. Student must declare desire for credit/no credit during registration; student may change to or from credit/no credit only during the five-day drop/add period.
2. Eight courses (except those mentioned in 6 below) regardless of credit hours per course, is the maximum number of credit/no credit classes acceptable toward a bachelor's degree. Transfer students will be allowed the following number of credit/no credit courses at Seattle University:

Transfer Credits		
	0-44	7 courses
	45-89	6 courses
	90-134	4 courses
	135 and above	0 courses

3. Credit/no credit may apply to a maximum of two courses in the major or departmental requirements outside the University core; students may not select this CR/NC option for any courses in the University's core.
4. Students who elect a credit/no credit option are eligible for quarter honor roll only if credit for graded courses totals 12 or more.
5. Only one credit/no credit course may be taken in a given quarter, except those in item No. 6 below.
6. All one credit P.E. activity courses numbered 100-499 and music practice courses shall be credit/no credit.
7. No graduate courses may be graded CR/NC.
   CR (credit)—PASS
   NC (no credit)—NO/PASS
8. All courses elected as credit/no credit will appear on the student's permanent record and will be graded:
   CR (credit)—PASS
   NC (no credit)—NO/PASS
9. Ninety (90) credits graded A, B, C, D, must be completed at Seattle University to qualify for honors. Courses graded CR/NC do not count toward this total of 90.

CR and NC courses will not be computed in credits attempted and therefore will be excluded from computations of grade point averages. Courses in which a CR grade is given will be counted as completed credits. When student selects the CR/NC option this becomes a matter of record with the Registrar, but it is not reported to instructors.

Probation

If a student falls below the standard he/she must maintain in order to graduate, he/she 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 2.00.

At the discretion of the dean a student on academic probation may be required to reduce the number of credits carried per quarter. Probation may extend for two quarters after the initial warning before dismissal is warranted.

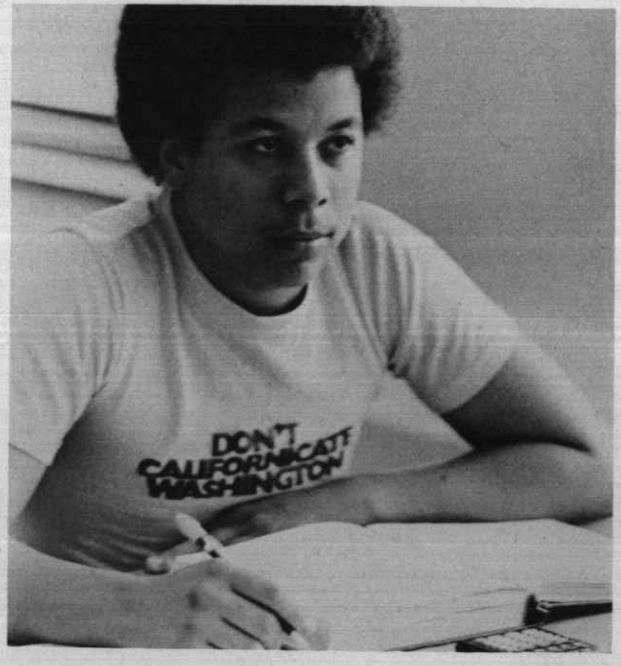
Readmission

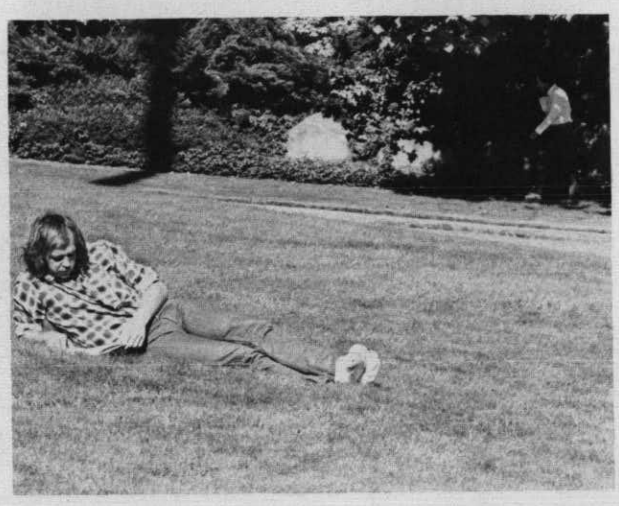
Students who have been absent from Seattle University for one or more quarters and students who have attended another school since withdrawing from Seattle University are required to fill out an application for readmission form. A re-entering student who has attended another school since withdrawal from Seattle University must arrange for two copies of his/her transcript to be submitted to the Registrar before application for admission can be considered.

Credit for courses completed elsewhere is considered not transferable unless an official transcript is filed with the Registrar at time of readmission. Credit from a two-year community college does not transfer once a student has a total of 90 quarter credits (junior status). Records of summer work must be on file by December 1 for credit to transfer.

Records

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. This policy is published annually in the student newspaper. Student directory information will be published by the University unless a student requests it not be released in writing to the Registrar by the fifth day of any term. 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 re-registration until all debts owed the University have been paid. The full policy statement including right of appeal may be obtained from the Registrar.





Registration

Newly admitted students and returning students must present themselves at the University for registration on the date specified in the calendar or elsewhere.
No registrations are permitted after the fifth class day. Payment of the late registration is required. Students registering late are held responsible for absences thus incurred.

Registration is completed only when fees are paid and approved registration cards are turned in to the Controller's office. No person may attend any University course for which he/she has not registered.

Registration Changes

Students are held accountable for completion of every course for which they register. If it is necessary to drop or add a course or to otherwise change a program of study, the student must obtain a change of course card from the Registrar's office and present it to the adviser or dean for approval. This card must be returned to the Registrar within the specified time limit. No course may be added or changed after the fifth day of class. A student who drops or changes courses without following this procedure is ineligible for tuition refund and will be assigned a grade of NC.

Repeating a Course

Students who receive a grade of D or E may repeat the course. In such cases the grade received the second time shall be the one counted in computing the grade point average required for graduation. The grade earned the second time cannot be higher than a C. In determining University graduation honors only the grade received the first time will be counted.

Transcripts

Students may obtain official transcripts from the Registrar's office. No official transcript will be sent for students with a financial obligation to the University.

Seattle University will not issue a transcript to any third party unless the student or graduate files a written request with the Registrar and supplies the name and address.

Letters of recommendation or copies of transcripts should be requested at least one week before they are required. Transcripts cannot be issued during the period of registration, examinations, or commencement.

The University does not hold itself responsible for any error on a transcript which 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 within the University

To transfer from one school of the University to another or from one department to another (change of major) the student must follow this procedure:

Obtain a form from the Registrar and present it to the dean of the school from which withdrawal is sought. When the form is approved by this dean it is presented to the dean of the school in which the student wishes to enroll. If approved by the new dean the form is returned to the Registrar and the student's record is altered accordingly.

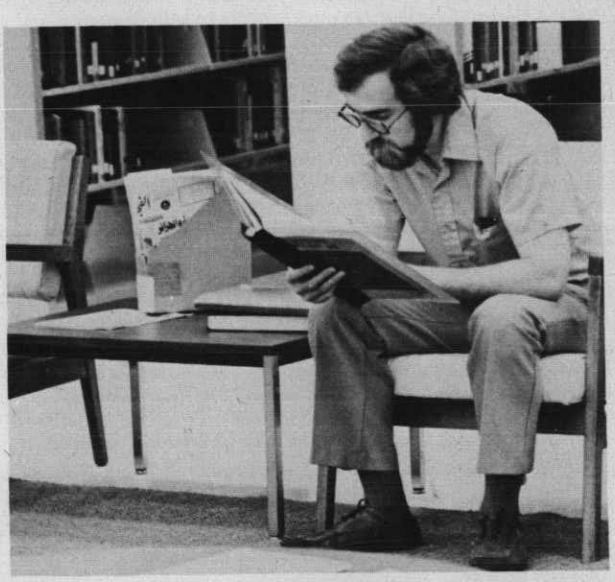
Withdrawal

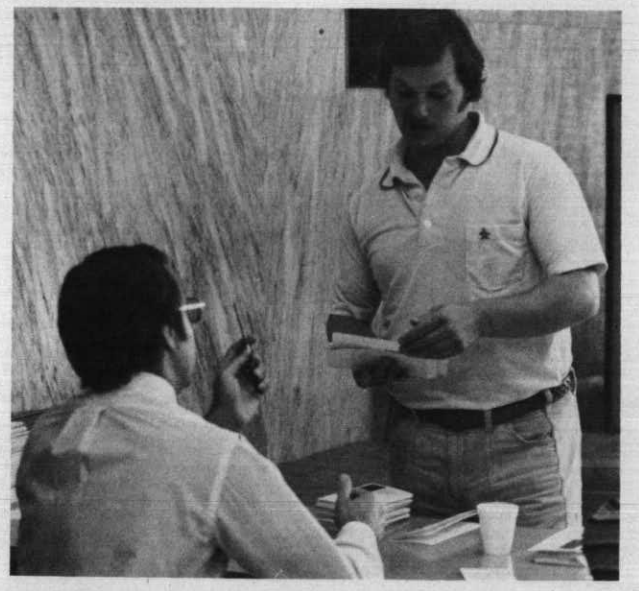
The Registrar's office must be officially notified when a student withdraws from one or more of his courses. The withdrawal card is obtained from the Registrar and presented to the adviser, instructor, dean and Registrar in that order for approval and signature. In an emergency, notification of withdrawal may be made by telephoning the dean of the school or Registrar.

The official withdrawal is completed only when the approved card is presented to the Registrar within the specified time limit. A grade of W will be allowed until the eighth last class day of the quarter.

Degrees and Honors

Official Commencement Exercises are held once a year in June. Students completing course requirements at the close of summer, fall or winter quarter will receive diplomas at the succeeding Commencement. All responsibility for fulfilling the requirements for graduation rests with the individual student.





Application for a Degree

Application for a degree must be made at the Office of the Registrar within the period indicated in the University calendar or other official publications. Candidates for a degree normally file applications during the quarter preceding their final registration. A receipt for the graduation fee must be presented before the Registrar may issue the application forms.

Application For a Certificate

Application for a certificate must be made at the office of the Registrar within the first four weeks of the student's last quarter in a certificate program. A receipt for the certificate fee must be presented before the Registrar may issue the application forms.

Degree Requirements—Bachelor's

As a general rule, students are required to meet degree program requirements in effect at the time of their matriculation.

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 2.00 must be achieved and a gpa of 2.00 is required in the student's major.
2. A minimum of 180 credits is required for the baccalaureate degree. However, only students matriculating as freshmen beginning September 1963 or later and transfer students matriculating January 1966 or later are eligible to graduate with 180 credits. Students who matriculated before these dates will be required to meet minimum requirements in effect at the time they were last enrolled as full time students.
3. A minimum of 15 credits in philosophy and 10 credits in theology and religious studies are required in all degree programs. See page 18 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, and the work is to be taken in the University under the direction of members of the faculty.
5. Completion of all degree requirements within 10 years of the date on which the college work was begun.
6. Satisfaction of financial obligations toward the University.
7. While attendance at commencement is not compulsory, diplomas will be routinely mailed only to those graduates who declare their intention to graduate in absentia at least two weeks in advance of the commencement date. Diplomas are issued only once a year in June regardless of when student completes degree work.
8. 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. These 45 credits must be completed in residence at Seattle University. A minimum of one course (5 credits) in philosophy and one course in theology and religious studies (5 credits) is required.

   Students completing this minimum of 10 credits in philosophy and theology and religious studies at Seattle University or elsewhere as part of a first bachelor's degree will be considered as having fulfilled this requirement. Minimum academic and administrative requirements listed above must also be met.

Requirements for advanced degrees are given in the Graduate Bulletin.

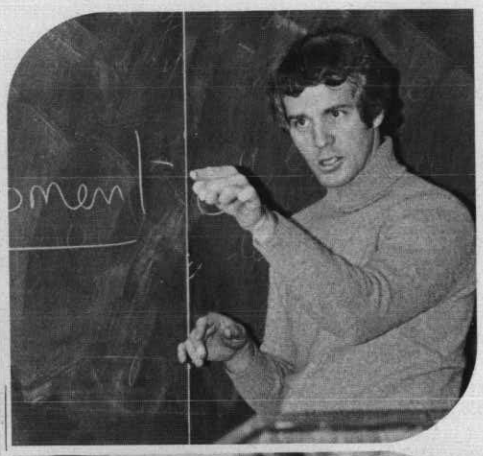
Honors at Graduation

Graduation with honors requires completion of at least 90 credits in residence at Seattle University; the minimum of 90 credits must be earned in regularly graded courses (courses in which grades of A, B, C, or D are given). Should a student elect the CR/NC option for any one course as part of his 90 credit minimum, he loses his honors eligibility. In programs where CR/NC grades are mandatory for field experience courses, a student with these as a part of his minimum 90 units also loses his eligibility for automatic honors on the scale shown below. However, such students may apply for honors by filing a petition with their Dean. The petition must be received by May 1 and will be reviewed by the Deans, with notification of the decision on honors issued to the student by May 20.

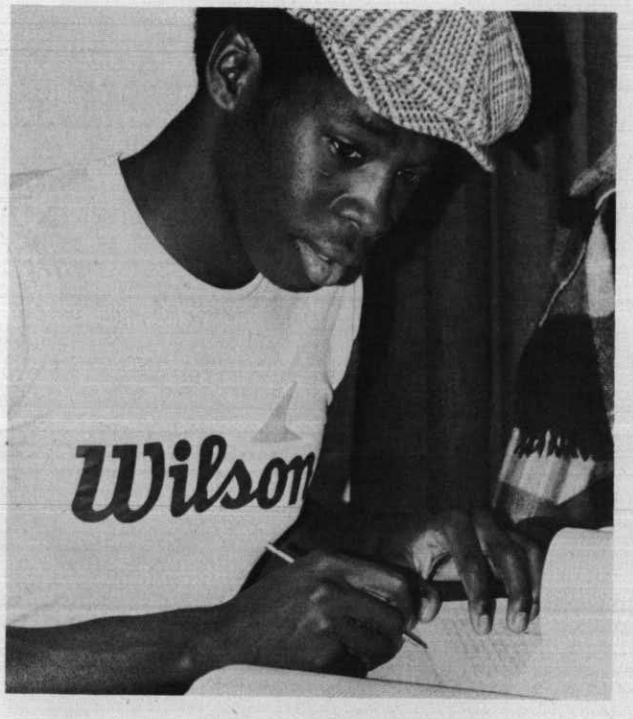
Cum Laude	3.40
Magna Cum Laude	3.65
Summa Cum Laude	3.90

Special Awards

The President's Award — Awarded to the graduating senior who has maintained the highest scholarship throughout the four years of college work, as determined by grades and the judgment of the academic deans.



COLLEGE OF ARTS & SCIENCES



College of Arts and Sciences

William F. LeRoux, S.J., S.T.D., Acting Dean

The College of Arts and Sciences has for its objective the development of personality — integral and liberal, Christian and humane. The instruments it employs to attain this objective are the traditional principles and structures of Jesuit education, of which in the ensemble of the University it is the natural custodian and guide.

Curriculum

Pursuant of this objective and these instruments and commensurate with its position as the oldest and largest school of Seattle University, the College of Arts and Sciences has a dual role: 1) for all the students of the University it provides the programs and faculty of the core curriculum — the primary instrument of Jesuit higher education and 2) for its own students it offers, beyond the core curriculum, programs and faculty guidance toward graduate proficiency in one or more of the various arts and sciences.

Organization

The College comprises 18 administrative subdivisions, of which 12 are departments in a specific academic subject. The departments are: English, Fine Arts, Foreign Languages, History, Journalism, Military Science, Philosophy, Political Science, Psychology, Rehabilitation, Sociology, Theology and Religious Studies.

The program divisions are: Community Services, Criminal Justice/Police Science, General Studies, Honors, Prelaw and Speech.

Certificate programs are offered in Alcohol Studies Rehabilitation and CORPUS (Pastoral Ministry).

Each department chairperson or program director, in collaboration with proper or assigned 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 chairperson 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. In addition, some departments list further requirements for admission into certain major programs. Concerning these the respective departmental sections in this bulletin should be consulted.

Bachelor of Arts

with a major in: Art, Community Services, Criminal Justice/Police Science, Drama, English, Foreign Languages, General Studies, History, Humanities, Journalism, Music, Philosophy, Political Science, Psychology, Rehabilitation, Social Sciences, Sociology and Theology and Religious Studies.

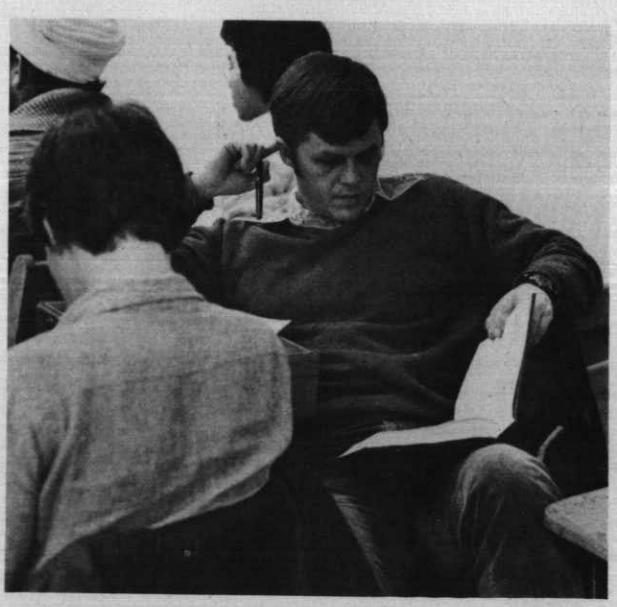
General Program Requirements

Students in the College of Arts and Sciences must satisfy the core curriculum requirements of the University given on page 18 of this bulletin.

Additional specific requirements are set by the department or program division in which the student's major program is pursued. For these requirements consult the respective sections in this bulletin.

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 hours; majors in departments having core sequences must consist of 35 hours beyond the core sequence.



Alcohol Studies Program

James E. Royce, SJ, Ph.D., Director

Objectives

This program is designed to provide a strong background for work in alcoholism treatment and rehabilitation, in education and prevention, in social service agencies, in industry or in referral centers. It examines various aspects of addiction to alcohol and other drugs: causes, nature, effects, treatment and prevention and also provides supervised field experience.

Basic Certificate

A certificate in Alcohol Studies will be granted upon successful completion of 20 credits, which must include the following courses: Alc 400 (or Psy 490), 401, 402, 403, 405, 407-8 with a 2.50 minimum g.p.a. Certificate candidates may register as transient students. These courses may also be taken as electives, or applied by those eligible toward the BA in Community Services, the BA in Rehabilitation, the BA in Criminal Justice/Police Science, or the M.A. in Rehabilitation. Candidates for the certificate may be a) paraprofessionals in or entering the field who wish stronger academic background to balance their experience, b) professionals lacking training in the specific field of alcoholism, or c) students in nursing, psychiatry or psychology, social work, rehabilitation, community services or allied fields.

Basic Certificate program is a combination of classroom instruction (12 credits) and supervised field experience (8 credits) under experienced counselors. Evening classes will permit in-service training.

Advanced Certificate

Admission to the advanced certificate program requires completion of the basic certificate with a gpa of 3.00. The advanced certificate requires completion of 16 credits in approved alcohol-related courses with a minimum gpa of 3.00 (B), beyond the 20 credits applied to the basic certificate.

A choice of two specialty tracks is offered: counselor and administrator. Each track consists of a core of required courses plus electives to total 16 credits. Courses taken in the basic program may not be repeated, and none of the course work credits may count toward both the Basic and the Advanced Certificate. If ALC 405 "The Law and Alcohol" was not taken in the basic program, it will be an additional required course within the total 16 credits.

Required Courses—Counselor

Alc 411	Advanced Counseling—Alcoholism	2 credits
Alc 412	Group Dynamics in Alcoholism Treatment	2 credits
Alc 414	Interview & Diagnosis in Alcoholism Treatment	2 credits
Alc 415	Rational-Emotive Therapy in Alcoholism Treatment	2 credits
		8 credits

Required Courses—Administrator

Alc 404	Agency Administration	2 credits
Alc 414	Interview & Diagnosis in Alcoholism Treatment	2 credits
Alc 417	Alcohol Problems in Business and Industry	2 credits
Alc 421	Advanced Project or Research in Alcoholism	2 credits
		8 credits
Electives in Alcohol Studies		8 credits
	Total . . .	16 credits

CS 420 "Survey of Drug Abuse" may also apply as 2 credits toward the Advanced Certificate, and with the permission of the Director other selected courses from Community Services, Psychology, Rehabilitation and Education.

Alcoholism Courses

Alc 400 (Psy 490) Survey of Alcoholism (Symposium) **3 credits**
History and scope of problems arising from addictive abuse of alcohol. Definitions, stereotypes, myths, conflicting religious views. Patterns of progression. Symptoms and diagnosis, types of alcoholics. Theories of etiology; the disease concept. (Psy 490 may substitute.) Pre or corequisite to Alc 401 through 413.

Alc 401 Pharmacology and Physiology of Alcohol **2 credits**
Ingestion, absorption, metabolism. Effects of different blood/Alcohol levels. Psychiatric complications: damage to brain, liver and other organs. Evaluation of results. Prerequisite: Alc 400.

Alc 402 Counseling Principles and Techniques 3 credits
Interview techniques. Intake and crisis intervention vs. long-range therapy. Supportive, client-centered, transactional, group, reality therapy. Confrontation, role-playing. Prerequisite: Alc 400.

Alc 403 Personal and Social Rehabilitation 2 credits
Motivation and personality reconstruction in the recovering alcoholic. Post-detoxication, long-range sobriety; relapses, dry drunk. Spiritual aspects. Family and social adjustments. Al-anon and Ala-teen. Industrial programs. Prerequisite: Alc 400.

Alc 404 Agency Administration 2 credits
Personnel policies, budgeting, financing, office management, public relations, ethics. Informational and educational policies. Relations with school systems, courts, professions and agencies, clergy. Prerequisite: Alc 400.

Alc 405 The Law and Alcohol 2 credits
Impaired driving, traffic court schools, probation and parole, correctional programs, constitutionality problems, preventative programs. Prerequisite: Alc 400.

Alc 406 Cross-Cultural Counseling: Alcoholism 2 credits
Special problems and techniques, understanding of cultural background and instruction by members of minority groups. Prerequisite: Alc 400 and 402.

Alc 407 Field Experience I in Alcoholism 4 credits
Alc 408 Field Experience II in Alcoholism 4 credits
Supervised work in an agency, clinic, rehabilitation center and referral center. Oral and written reports by student required. Prerequisite: Alc 400 and 402. Mandatory CR/NC

Alc 409 Special Topics 1-3 credits
Courses taught by a particular expert or on a certain aspect; e.g., counseling the alcoholic family.

Alc 410 Individual Research 1-3 credits
Open only to students with sufficient academic background to pursue independent study. Permission of director required.

Alc 411 Advanced Counseling — Alcoholism 2 credits
Instruction and supervised practice in counseling techniques of special value in counseling alcoholics. Playback video tape equipment used. Two and one-half hours per week. Prerequisite: Alc 402.

Alc 412 Group Dynamics in Alcoholism Treatment 2 credits
Role playing as a means to development of self awareness; dynamics of group interaction; introduction to psychodrama. Two and one-half hours per week. Prerequisites: Alc 402, 411 or permission.

Alc 413 Alcoholism Schools Workshop 2 credits
Goals, methods, and skills in teaching Alcohol Information Schools (AIS), (OAR), (ADE), and court referral schools for those driving while intoxicated (DWI). Problems with defensive and hostile clients. Prerequisite: Alc 400 or equivalent.

Alc 414 Interview and Diagnosis in Alcoholism Treatment 2 credits
Procedures and skills used in alcoholism referral and treatment agencies. Intake interview, client evaluation, case-writing, pre-sentence report, record-keeping and confidentiality. Prerequisite: ALC 402 and 405.

Alc 415 Rational-Emotive Therapy in Alcoholism Treatment 2 credits
Uses of the Rational-Emotive Therapy (R.E.T.) with recovered alcoholics and their spouses. Theory, principles and application of techniques. Individual and group practice. Prerequisites: ALC 403 and ALC 407.

Alc 416 Alcohol and Youth: Education, Problems, Prevention 2 credits
Alcohol-related problems among young people, stressing education and prevention. Teen-age alcoholics, children of alcoholics, polydrug abuse and the young drinking driver.

Alc 417 Alcohol Problems in Business and Industry 2 credits
Scope and cost of alcohol-related problems in American business and industry. Company policy, implementation of occupational alcoholism programs, training of supervisors.

Alc 418 Alcoholism and The Family 2 credits
Alcohol-related problems in the family, including alcoholic, spouse, children and significant others. Individual and group counseling. Married couples and team approach as alternatives. Prerequisite: ALC 402.

Alc 419 Advanced Physiology and Pharmacology of Alcohol 2 credits
Current research and thought regarding the effects of alcohol on all body tissues, with implications for treatment. Fetal alcohol syndrome, brain, liver, endocrine and other damage. Prerequisite: ALC 401.

Alc 420 Alcoholism Seminar 2 credits
An advanced seminar on selected current topics in alcoholism and alcohol-related problems. Prerequisite: 10 credits in Alcohol Studies, and permission of Director.

Alc 421 Advanced Project or Research in Alcoholism 2-5 credits
Replication, original research, or scholarly investigation which demonstrates mastery of basic fact-finding, experimental design, evaluation and presentation of results. A graduate project or master's thesis will fulfill this requirement. Prerequisite: Basic Certificate in Alcohol Studies, and permission.

Community Services

Herbert M. Kagi, Ph.D., Director

Objectives

Community Services is a program primarily involving social work courses and field experience supported by the study of economics, political science, psychology and sociology. The primary objective is to prepare students for work in the field of social services immediately after the bachelor's degree. Other objectives are to contribute to the liberal education of all students, and to prepare students for admission to graduate schools of social work. The program assists students in deciding on a career choice by making known the nature of, and opportunities in, the social service field, and provides knowledge and understanding of this field for students preparing for advanced training in the related professions.

Supervised field experience in agencies, institutions or related organizations is a unique and vital part of the program. This experience is provided in such areas as probation and parole, public assistance, mental health facilities, youth and children's services, employment counseling and economic opportunity programs. The Community Services program is not an apprenticeship system but rather a basic program with courses and supervised field practice aimed at giving those principles, skills, knowledge and attitudes necessary for workers in the above fields. Coordinating seminars, concurrent with two required field experiences, provide each student opportunity to understand himself/herself more deeply and acquire a broad perspective of community services.

Degree Offered

Bachelor of Arts in Community Services

General Program Requirements

Candidates must satisfy the core curriculum requirements of the University as given on page 18 of this bulletin. A minimum of two field experiences is required, with which the coordinating seminars must be taken concurrently. The required experiences must be in diverse areas.

Degree Requirements

Bachelor of Arts — 105 credits which must include CS 300, 374, 376, 378, 379, 478 and 479; 20 credits in sociology; 15 credits in psychology; 10 credits in political science; 10 credits in economics; 5 credits in statistics or research methods courses.

Bachelor of Arts in Community Services

Freshman year

English 100 and core option	10 credits
History core option	10 credits
Mathematics/Science core option	5 credits
Philosophy 110	5 credits
Political Science	5 credits
Psychology	5 credits
Sociology	5 credits

Sophomore year

Economics	5 credits
Mathematics/Science core option	5 credits
Philosophy 220 and core option	10 credits
Political Science	5 credits
Sociology	10 credits
Psychology	5 credits
Theology	5 credits

Junior year

Community Services 300, 374, 376	15 credits
Community Services Elective	5 credits
Economics	5 credits
Psychology	5 credits
Sociology	5 credits
Theology	5 credits
Electives	5 credits

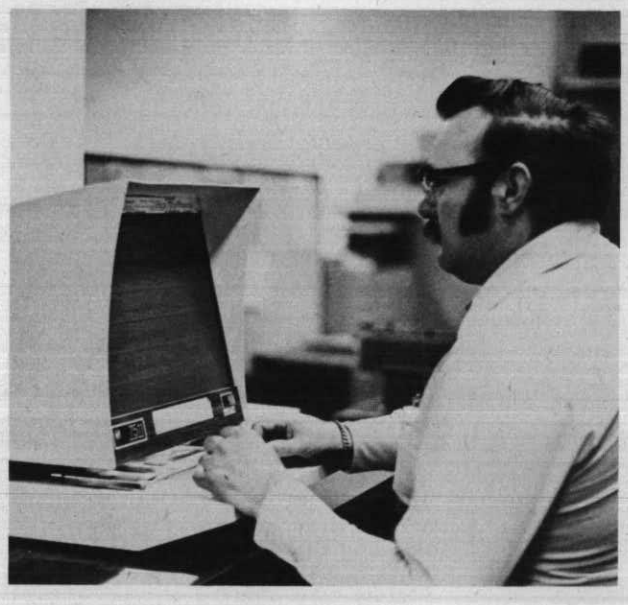
Senior year

Community Services 378, 379, 478, 479	20 credits
Community Services Elective	5 credits
Statistics or Research Methods	5 credits
Electives	15 credits
Total	180 credits

Community Services Courses

CS 291	**Special Topics**	**1-5 credits**
CS 292	**Special Topics**	**1-5 credits**
CS 293	**Special Topics**	**1-5 credits**

CS 300 (Sc 300) **Introduction to Community Services** **5 credits**
Historical development, structure and function of social welfare services and institutions; emphasis on philosophy and methods utilized by professional social work in meeting human needs. (fall, winter)



CS 310 **Dynamics of the Family** **5 credits**
Behavioral dynamics of interpersonal relationships in the family; reciprocal nature of relationships; conceptual frameworks for individual and family therapy through study of treatment modalities. (spring)

CS 315 **Working with Children** **2 credits**
Theories of child development which direct the modes of service to children. Study of laws which control agency services to children. Examination of selected agency case records.

CS 321 **Asian-American Experience** **5 credits**
From a Historical perspective of period beginning with the Asian immigrants to America, the problems faced, and how they laid the groundwork for the present generation of Asian-Americans. (spring)

CS 330 **Citizen and the Law** **3 credits**
Discussion of poverty law; family law, the contractual relationship, consumer law, landlord-tenant laws, and personal liability. (spring)

CS 360 **Society and Justice** **5 credits**
Examination of the sanctions and processes of criminal law as related to the ethical implementations of social justice. Prerequisite: Upper division standing.

CS 374 **Intervention Skills** **5 credits**
Provides students with the basic principles and processes involved in giving help to individuals, groups and communities in the human services field; focus on some of the basic methods, techniques and strategies. (fall)

CS 376 **Factors of Interviewing** **5 credits**
(Sc 376) The interview as one of the major methods of helping people; study of factors of knowledge and method in proficient interviewing to provide a basis for future development. Prerequisite: CS 300 or permission. (winter, spring)

CS 377 **Field Experience** **5 credits**
(Sc 377) For Sociology majors only. Mandatory CR/NC (spring)

CS 378 **Field Experience I** **7 credits**
CS 379 **Field Experience II** **7 credits**
CS 380 **Field Experience III** **3-7 credits**
Direct observation, supervised practice experience in a social welfare agency with the agency's clientele, services and functions in the community. Prerequisites: CS 376 or permission for 378; 378 for 379; 379 for 380. Mandatory CR/NC (fall, winter, spring)

CS 420 **History and Survey of Drug Abuse** **5 credits**
Scope of problems arising from drug abuse. Psychology of drug addiction; patterns of progression, early symptoms and diagnosis; types of drug addicts. Theories of etiology.

CS 440 **Crisis Intervention** **5 credits**
Theory and practice of crisis intervention strategies. Schools, criminal justice agencies, family service agencies, public welfare agencies and crisis centers.

CS 478 **Coordinating Seminar I** **3 credits**
CS 479 **Coordinating Seminar II** **3 credits**
Discussion and analysis of practices, programs, objectives, policies and procedures of various agencies, organizations and institutions. Corequisites: CS 378 with 478; 379 with 479.

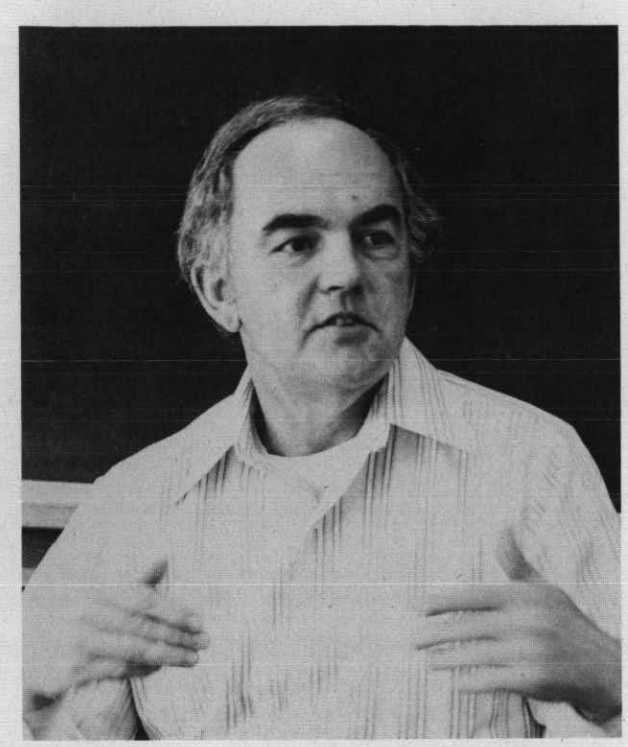
CS 491 **Special Topics** **1-5 credits**

CS 492 **Special Topics** **1-5 credits**

CS 493 **Special Topics** **1-5 credits**

CS 497 **Individual Research** **1-5 credits**
By arrangement, with professional supervision. Prerequisite: Upper division standing and permission.

CS 498 **Independent Study** **1-5 credits**
Prerequisite: Upper division standing and permission.



Criminal Justice/Police Science

Herbert M. Kagi, Ph.D., Director

Objectives

The Criminal Justice/Police Science degree program seeks to offer academic preparation for professional performance in expanding law enforcement roles requiring a new scope of involvement and a spirit of inquiry; to provide an educational background in operational and managerial concepts and techniques in preparation for future positions of increasing responsibility in the management of police services; to provide students with a liberal arts education; to contribute significantly to the improvement of the quality of law enforcement services; and to assist a student in gaining a broad but incisive view of the theories, practices, and problems of criminal justice systems to include research techniques and strategies.

Graduates of the program may qualify for careers in public and private law enforcement, criminal investigation, crime prevention, law enforcement training, education and planning, and other components of the criminal justice system.

Degree Offered

Bachelor of Criminal Justice/Police Science

General Program Requirements

Candidates must satisfy the core curriculum requirements of the University as given on page 18 of this bulletin. Because of the interdisciplinary nature of the degree program, majors are required to take 15 credits in sociology; 15 in political science; 15 credits in psychology; and 10 credits in economics.

Degree Requirements

Bachelor of Criminal Justice/Police Science — 55 credits in CJP.

Bachelor of Criminal Justice/Police Science

Freshman and Sophomore years

Criminal Justice/Police Science	10 credits
Economics	5 credits
English 100 and core option	10 credits
History core option	10 credits
Mathematics-Science core option	10 credits
Philosophy core option	15 credits
Political Science	5 credits
Psychology	5 credits
Sociology	5 credits
Theology core option	10 credits
Elective	5 credits

Junior year

Criminal Justice/Police Science	10 credits
Economics	5 credits
Political Science	10 credits
Psychology	10 credits
Sociology	10 credits

Senior year

Criminal Justice/Police Science	35 credits
Elective	10 credits
Total	180 credits

Criminal Justice/Police Science Courses

CJP 291 Special Topics — **1-5 credits**

CJP 292 Special Topics — **1-5 credits**

CJP 293 Special Topics — **1-5 credits**

CJP 325 Criminal Law and Procedure — **5 credits**
Study of the criminal law processes from detention to appeal; State and Federal rules of criminal procedure. Understanding of policies underlying those rules.

CJP 350 (Sc 351) Police and the Community — **5 credits**
The role of 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.

CJP 352 Comparative Police Systems — **5 credits**
Comparative analysis of police systems in the United States and selected foreign countries; emphasis on the organizational aspects, functions and process at work in foreign police systems.

CJP 354 Police Planning — **5 credits**
Survey of planning techniques; development of long and short range goals; data collection; processing and analysis; budgeting; design of evaluation and monitoring systems.

CJP 355 Crime Prevention — **5 credits**
Nature and causes of crime and deviant behavior; analysis of theory and methods of prevention; planning for elimination of conditions conducive to crime including demographic and ecological factors.

CJP 356 Industrial Security **5 credits**
Historical, philosophical and legal basis of private security. Role of security in modern industrial society. Administrative, personnel and physical aspects of the security field.

CJP 360 Society and Justice **5 credits**
(Sc 352) Survey of criminal justice process from arrest through release; the relationships of the police, the prosecutor, the defense, the courts, the prisons and corrections, as each integrates into a system.

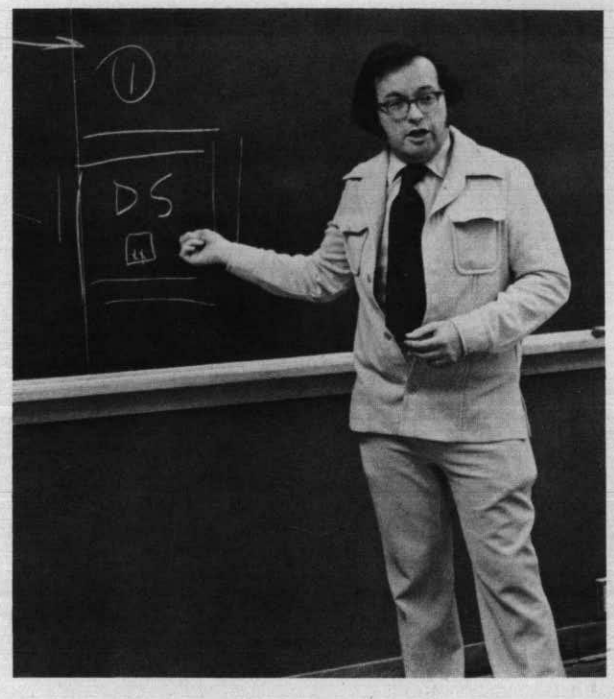
CJP 362 Deviant Behavior **5 credits**
(Sc 362) An overview of what American society generally regards as deviant behavior. Emphasis is placed on the results of stigmatization and the acceptance of low self-esteem.

CJP 365 Probation and Parole **5 credits**
(Sc 365) Examination of current trends and issues in probation, parole, supervision, the legal aspects, research, prediction and personnel.

CJP 366 Corrections **5 credits**
(Sc 366) Analysis of post-arrest treatment methods applied to offenders; the correctional institution and community-based corrections. Prerequisite: Upper division standing or permission.

CJP 378 Field Experience I **1-5 credits**
CJP 379 Field Experience II **1-5 credits**
Direct observation, supervised practical experience and academic study in a selected law enforcement agency of organization in the criminal justice system.

CJP 410 Juvenile Justice Systems **3 credits**
(Sc 412) 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.



CJP 415 Victimology **5 credits**
(Sc 415) Survey of the victim-offender relationship; including the origin and scope of victimology, a victim and society, the victim and the administration of justice and the social reaction to victimization.

CJP 420 The Politics of Civil Liberties **5 credits**
Introduction to the "Politics" of civil liberties. The focus will be upon three major libertarian values: Freedom of expression; equality; and due process in criminal procedure.

CJP 425 Problems of Public Service Bureaucracies **5 credits**
Descriptive analysis of the administrative side of large scale post-industrial governments. Emphasis upon coordination and conflict resolution through the budgeting and planning processes.

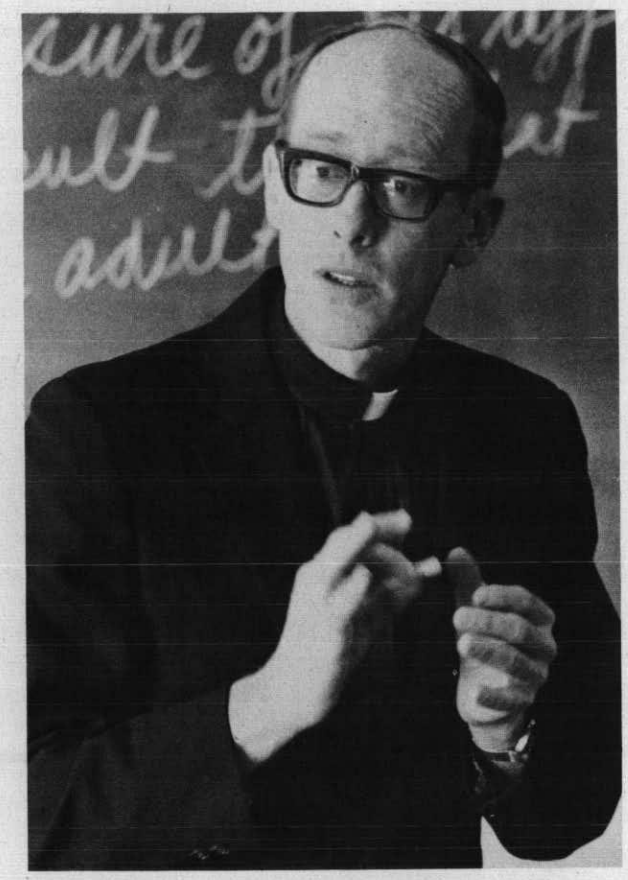
CJP 450 Politics of the Criminal Justice System **5 credits**
The relationship of political values and partisan influence in the criminal justice system including courts, prosecutors, attorneys and pressure groups.

CJP 455 Criminal Justice System Planning **5 credits**
Methodology of systems planning, theories of analysis and problems of program evaluation with special attention to the criminal justice system.

CJP 491 Special Topics **1-5 credits**
CJP 492 Special Topics **1-5 credits**
CJP 493 Special Topics **1-5 credits**
Prerequisite: Upper division standing and permission.

CJP 497 Individual Research **1-5 credits**
By arrangement, with professional supervision. Prerequisite: Upper division standing and permission.

CJP 498 Independent Study **1-5 credits**
Prerequisites: Upper division standing and permission.



English

Alexander McDonald, S.J., M.A. (Oxon.), Chairman

Objectives

The English department offers courses which are designed to develop in the student a knowledge and appreciation of the literature which comprises our cultural heritage, to give the student a knowledge of the language and its effective use in communication, and to prepare graduates for those professions which require a broad background in language, rhetoric and literature.

Degrees Offered

Bachelor of Arts
Master of Arts—See Graduate Bulletin
Master of Arts (in Teaching)—See Graduate Bulletin

General Program Requirements

Students in English must satisfy the core curriculum requirements of the University as given on page 18 of this bulletin. A Fine Arts sequence, FA 101, 102, 103, is recommended. For English majors the second core course requirement is met by En 264, 265 or 266. Those students who plan to go to graduate school, unless they have already achieved reading proficiency in French or German, are strongly advised to take 10 credits of one of those languages.

Departmental Requirements

Bachelor of Arts (English concentration)—60 credits of English which must include the following courses: En 100, 250, 264, 265, 266, 310, 314, 315 and 330. The remaining credits must be taken in courses in the 300 and 400 series. The nature of the courses is to be determined by the student in consultation with an adviser.

Bachelor of Arts (Comparative Literature Concentration)—60 credits of English and Comparative Literature which must include the following courses: En 100, 250, 264, 265, 266, 314, 315, 414 and 416. The remaining credits must be taken in the 300 and 400 series. Recommended are En 382 and 415. The student must take one five-hour course of a foreign literature in the original language when a reading competency in that language has been demonstrated.

Teaching Major (School of Education) — 60 credits of English which must include En 100, 175 or 220 or 230 or 240, 250, 264, 265, 301, 330, either 266, 382, 482 or 484, and either 310 or 407. The remaining 15 credits must be taken in courses in the 300 and 400 series. En 314 and 315 are strongly recommended.

Undergraduate Minor — 20 credits of English beyond En 100 and either 264, 265 or 266. These courses should be taken in the 300 and 400 series, as specified by the department. For the Journalism — English Interdisciplinary Program, see the section on Journalism.

Bachelor of Arts

Freshman year

English 100, 250 ..... 10 credits
Fine Arts 101, 102, 103 ..... 15 credits
or
Foreign Language (Comparative Literature concentration; recommended) ..... 15 credits
History core option ..... 10 credits
Philosophy core option ..... 10 credits

Sophomore year

English 264, 265, 266 ..... 15 credits
Mathematics/Science core option ..... 5 credits
Philosophy core option ..... 5 credits
Social Science core options ..... 10 credits
Theology core options ..... 10 credits

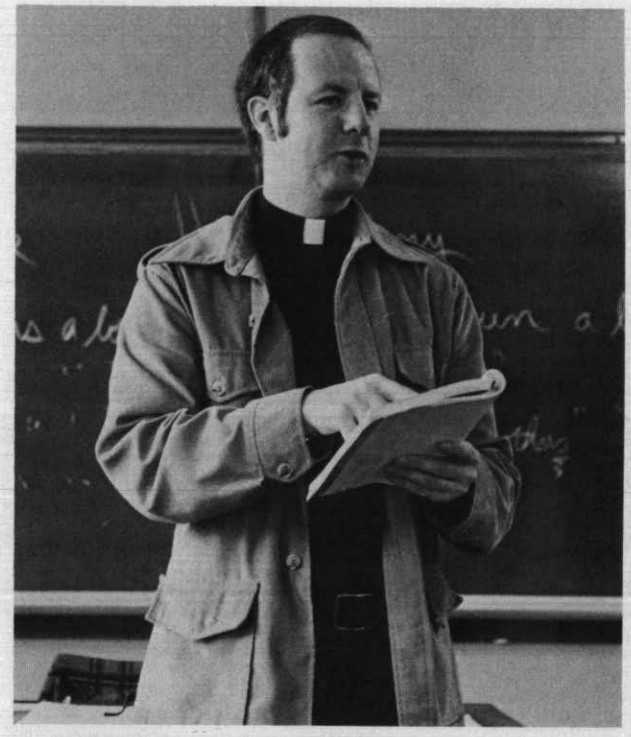
Junior year

English 310, 314, 315, 330 (English concentration) ..... 20 credits
or
English 314, 315, 414, 415 (Comparative Literature concentration) ..... 20 credits
French or German 105, 106 ..... 10 credits
Mathematics/Science core options ..... 5 credits
Electives ..... 10 credits

Senior year

English 300 and 400 series courses ..... 15 credits
Electives ..... 30 credits

Total . . . . 180 credits



English Courses

En 100 **Freshman English** **5 credits**
Study and practice in rhetoric, emphasizing expository writing and mastery of style.

En 101 **Freshman English** **5 credits**
Continuation of En 100.

En 103 **Special English I** **1-5 credits**

En 104 **Special English II** **1-5 credits**

En 105 **English as Second Language** **5 credits**

En 132 **Masterpieces of American Literature** **5 credits**
Close reading and analysis of American literary classics: novels, plays, poetry and essays.

En 133 **Masterpieces of World Literature** **5 credits**
Close reading and analysis of world literary classics: novels, plays, poetry and essays.

En 134 **Masterpieces of British Literature** **5 credits**
Close reading and analysis of British literary classics: novels, plays, poetry and essays.

En 175 **Introduction to Literature** **5 credits**
Introduction to the study of novels, plays, poetry and essays.

En 200 **Advanced Composition** **5 credits**
Advanced study and practice in expository writing.

En 203 **Vocabulary** **5 credits**
A practical course in vocabulary building. Emphasis on etymology, Latin and Greek roots, prefixes and suffixes.

En 220 **Introduction to Poetry** **5 credits**
Introduction to the study of poetry with special emphasis on appreciation, form and technique.

En 230 **Introduction to Fiction** **5 credits**
Introduction to the study of fiction with special emphasis on appreciation, form and technique.

En 240 **Introduction to Drama** **5 credits**
Introduction to the study of drama with special emphasis on appreciation, form and technique.

En 250 **Practical Criticism** **5 credits**
Introduction to the terminology and techniques of literary analysis. Required of English majors.

En 264 **Great English Authors I** **5 credits**
En 265 **Great English Authors II** **5 credits**
En 266 **Great English Authors III** **5 credits**
I. Study of major British writers from the Medieval period through the Renaissance (1640). II. Study of major British writers from the Puritan period through the Eighteenth Century (1640-1798). III. Study of major British writers from the Romantic period to the Victorian period (1798-1900). Required of English majors.

En 291 **Special Topics** **1-5 credits**
En 292 **Special Topics** **1-5 credits**
En 293 **Special Topics** **1-5 credits**

En 301 **Advanced Rhetoric and the Teaching of English** **5 credits**
Study of rhetorical theory and techniques and their application to writing, with emphasis on methods of teaching composition.

En 305 **Writing Fiction** **5 credits**
Study and practice in the forms and methods of short story writing, with subsidiary attention to other types of narrative writing.

En 306 Writing Poetry — **5 credits**
Study of and practice in the modes and techniques of poetic composition.

En 310 Introduction to Chaucer — **5 credits**
Study of Chaucer's "Canterbury Tales." Required of English majors.

En 312 Classics in Children's Literature — **5 credits**
In-depth humanistic and interdisciplinary analysis of basic texts in children's literature; folk tales, L. Carroll, C.S. Lewis, outstanding 20th century works.

En 313 Mythology — **5 credits**
Study of the mythological backgrounds of English and American literature.

En 314 Backgrounds of Western Literature I — **5 credits**
En 315 Backgrounds of Western Literature II — **5 credits**
I. From the beginnings into Medieval Period. II. From Dante through the Renaissance. Required of English majors.

En 330 Introduction to Shakespeare — **5 credits**
Readings in the comedies, tragedies and histories. Required of English majors.

En 382 Major American Novelists — **5 credits**
American fiction from its beginning to modern times: Cooper, Melville, Twain, James, Hemingway, Faulkner and others.

En 383 Classics of Black American Literature — **5 credits**
An historical approach to the literature of Afro-Americans, with emphasis on the moderns: Jones, Wright, Cleaver, Baldwin, Ellison and others, in the context of general American literature.

En 391 Special Topics — **1-5 credits**

En 394 Modern Tradition: Fiction — **5 credits**

En 395 Modern Tradition: Poetry — **5 credits**

En 398 Modern Tradition: Drama — **5 credits**

En 401 Studies in Rhetoric — **5 credits**

En 407 History of the English Language — **5 credits**
Study of the historical development of English.

En 411 Medieval Literature — **5 credits**

En 414 Eighteenth and Nineteenth Century Continental Literature — **5 credits**

En 415 Russian Literature — **5 credits**

En 416 Eastern Literature — **5 credits**

En 420 Renaissance Literature — **5 credits**

En 430 Shakespeare I — **5 credits**
En 431 Shakespeare II — **5 credits**
I. Tragedies. II. Comedies/histories.

En 445 Seventeenth Century Literature — **5 credits**

En 450 Restoration and Eighteenth Century Literature — **5 credits**

En 452 Eighteenth Century English Novel — **5 credits**

En 460 Romantic Literature — **5 credits**

En 475 Victorian Literature — **5 credits**

En 477 Nineteenth Century English Novel — **5 credits**

En 482 American Literature to 1900 — **5 credits**

En 484 Twentieth Century American Literature — **5 credits**

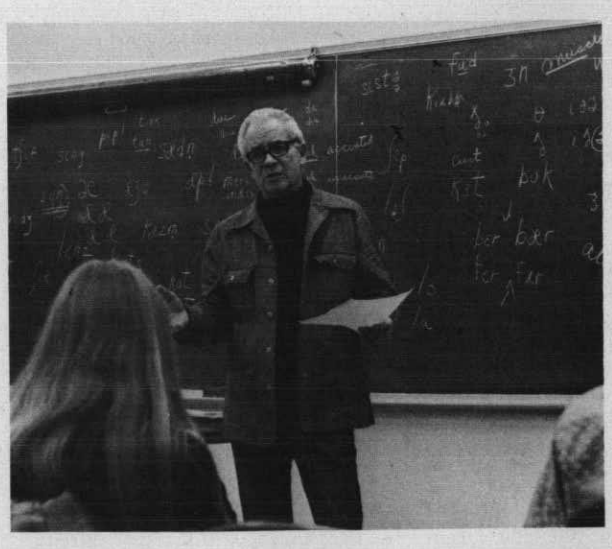
En 487 Contemporary Literature — **5 credits**

En 488 The Film and Literature — **5 credits**

En 490 Literary Criticism — **5 credits**

En 491 Special Topics — **1-5 credits**
En 492 Special Topics — **1-5 credits**
En 493 Special Topics — **1-5 credits**

En 497 Individual Research — **5 credits**
En 498 Individual Research — **5 credits**



Fine Arts

Marvin T. Herard, M.F.A., Chairman

Objectives

The Fine Arts department provides that element of a liberal education which distinguishes the truly refined and cultured person. By studying the masterpieces of art, drama and music, the student is led to an awareness of one of man's superior intellectual powers, his/her creative imagination; by means of practical experience in the fine arts, he/she is enabled to understand the operation of that power.

By observing the characteristics of the arts in proper historical perspective, the student learns how changes of style reflect the changing attitudes, ideas, ideals and social conditions of various historical periods. Thus the fine arts become an integrative study sharing in the common goals of all liberal arts subjects. The department offers basic professional courses in its three areas, but does not seek to duplicate the art academy, school of drama or conservatory of music. While the fine arts major acquires the basic professional foundation in his/her own field, the interdisciplinary approach enables him/her to obtain practical experience in the related art forms. The student's ability to pursue advanced study in his/her field will depend upon the nature of his/her talents and the extent of special gifts for his/her subject.

Degree Offered

Bachelor of Arts

General Program Requirements

Students in fine arts must satisfy the core curriculum requirements of the University given on page 18 of this bulletin. Fifteen credits of Fine Arts courses are required. In addition, a student majoring in one of the three fields within the Fine Arts Department must take 15 credits from among the two related fields.

Departmental Requirements

Bachelor of Arts — Major in Art — 49 credits which must include Art 221, 222, 223, 231, 232, 233, 311, 312, 334, 346, 351; 21 elective credits in art.

Bachelor of Arts — Major in Drama — 35 credits which must include Dr 100, 210, 221, 222, 264, 265, 267, 320, 420, 455 and 480.

Bachelor of Arts — Major in Music — 63 credits which must include Mu 115, 116, 117, 215, 216, 217, 372, 373; 10 credits from 415, 416, or 417; 418; 6 credits of ensemble and 6 credits of vocal or instrumental lessons. Music majors must pass a proficiency test in piano at the end of their first year.

Teaching Subject, Elementary, Art (School of Education) — 25 credits which must include Art 221, 231, 311, 312, 334, 346, 351, 370.

Teaching Subject, Elementary, Drama (School of Education) — 25 credits which must include Dr 100, 210, 221, 264, 420, 421, plus 7 additional credits in Drama (electives).

Teaching Subject, Elementary, Music (School of Education) — 24 credits which must include FA 103, Mu 115, 116, 117, 2 credits of Mu 110 and 2 credits of Mu 130, Music 114 is required by the School of Education.

Bachelor of Arts—Major in Art

Freshman year

Art 221, 222, 223	6 credits
English 100 and core option	10 credits
Fine Arts 101	5 credits
Philosophy 110, 220	10 credits
Social Science core options	10 credits
Electives	4 credits

Sophomore year

Art 231, 232, 233 and electives	10 credits
Fine Arts 102	5 credits
History 101, 102 or 102-103	10 credits
Mathematics/Science core option	10 credits
Philosophy core option	5 credits
Theology core option	5 credits

Junior year

Art 311, 312 and electives	20 credits
Drama/Music electives	15 credits
Fine Arts 103	5 credits
Theology core option	5 credits

Senior year

Art 334, 346, 351	6 credits
Art electives	7 credits
Electives	32 credits
Total	180 credits

Bachelor of Arts—Major in Drama

Freshman year

Drama 100, 210	8 credits
English 100 and core	10 credits
Fine Arts 102	5 credits
History core	10 credits
Philosophy 110	5 credits
Electives	7 credits

Sophomore year

Drama 221, 222, 264, 265	11 credits
Philosophy 220 and core	10 credits
Social Science core	10 credits
Art/Music Electives	5 credits
Electives	9 credits

Junior year

Drama 267, 320, 455	12 credits
Fine Arts 101, 103	10 credits
Theology core	5 credits
Art/Music Electives	10 credits
Electives	8 credits

Senior year

Drama 420, 480	4 credits
Math/Science core	10 credits
Theology core	5 credits
Electives	26 credits
Total	180 credits

Bachelor of Arts—Major in Music

Freshman year

English 100 and core option	10 credits
Fine Arts 103	5 credits
History core option	10 credits
Music 115, 116, 117	15 credits
Music 130 or 131 or 135	3 credits
Music 110	2 credits

Sophomore year

Fine Arts 101, 102	10 credits
Mathematics/Science core option	10 credits
Music 215, 216, 217, 372, 373	21 credits
Music 110 or 111	2 credits
Social Science core option	5 credits

Junior year

Music 130 or 131 or 135	3 credits
from 415 or 416 or 417	5 credits
Philosophy 110, 220, option	15 credits
Social Science core option	5 credits
Theology core option	5 credits
Electives	12 credits

Senior year

Art/Drama electives	15 credits
Music 110 or 111	2 credits
Music 418	5 credits
from 415 or 416 or 417	5 credits
Theology	5 credits
Electives	10 credits
Total	180 credits

Fine Arts Sequence and Symposium Courses

FA 101 Fine Arts — Art — **5 credits**
Synoptic view of art history; period and national styles; principles and implications of design, with cross-reference to music and drama

FA 102 Fine Arts — Drama — **5 credits**
Introduction to drama as an art form. An historical approach with emphasis on major periods, plays and philosophies.

FA 103 Fine Arts — Music — **5 credits**
Introduction to music as an art and as a literature, with emphasis upon historical and cultural correlations.

FA 400 Fine Arts—Symposium — **5 credits**
An interdisciplinary course open to all students. May be used to satisfy any departmental crossfield requirement for Fine Arts majors.

Art Courses

Art 221 Drawing — **2 credits**
Art 222 Drawing — **2 credits**
Art 223 Drawing — **2 credits**
Studies of line and value in the delineation of form; training in awareness and perception; structure and space indication; essential relationships of organic forms.

Art 231 Design — **2 credits**
Art 232 Design — **2 credits**
Art 233 Design — **2 credits**
Primary concepts and analysis of structure; problems of contemporary design; form in three-dimensional design.

Art 291 Special Topics — **1-5 credits**
Art 292 Special Topics — **1-5 credits**
Art 293 Special Topics — **1-5 credits**

Art 311 History of Art — **5 credits**
Art 312 History of Art — **5 credits**
Survey of the arts of the Western world from the earliest times to the Renaissance and from the Renaissance to the present.

Art 321 Advanced Drawing — **3 credits**
Art 322 Advanced Drawing — **3 credits**
Art 323 Advanced Drawing — **3 credits**
Study of the human form; special problems in group composition. Prerequisite: Art 223.

Art 331 Advanced Design — **3 credits**
Art 332 Advanced Design — **3 credits**
Art 333 Advanced Design — **3 credits**
Problems of practical application; advertising art; synthesis and research. Prerequisite: Art 233.

Art 334 Graphics — **2 credits**
Art 335 Graphics — **2 credits**
Art 336 Graphics — **2 credits**
Principles and techniques of print-making; lithography and woodcut.

Art 346 **Painting** **2 credits**
Art 347 **Painting** **2 credits**
Art 348 **Painting** **2 credits**
Study of the principles and practices of rendering in paint; complex composition; advanced problems.

Art 351 **Sculpture** **2 credits**
Art 352 **Sculpture** **2 credits**
Art 353 **Sculpture** **2 credits**
Principles and practices leading to a realization of the nature of form; dependence of design on materials; advanced problems.

Art 370 **Arts and Crafts** **5 credits**
Experience in artistic expression in basic art media for elementary and secondary school teachers.

Art 446 **Advanced Painting** **3 credits**
Art 447 **Advanced Painting** **3 credits**
Art 448 **Advanced Painting** **3 credits**
Experimental research toward the development of a creative and personalized idiom, synthesis and research. Prerequisite: Art 348 or permission of department chairman.

Art 451 **Advanced Sculpture** **3 credits**
Art 452 **Advanced Sculpture** **3 credits**
Art 453 **Advanced Sculpture** **3 credits**
Includes foundry techniques and lost wax process. Prerequisite: Art 453 or permission of instructor.

Art 470 **Advanced Media** **5 credits**
Experience in artistic expression in advanced art media for elementary and secondary school teachers.

Art 491 **Special Topics** **1-5 credits**
Art 492 **Special Topics** **1-5 credits**
Art 493 **Special Topics** **1-5 credits**

Art 497 **Independent Study** **1-5 credits**
Art 498 **Independent Study** **1-5 credits**
Art 499 **Independent Study** **1-5 credits**
Advanced work in academic or experimental research. Prerequisites: Advanced standing in art and permission of department chairman.

Drama Courses

Dr 100 **Vocal Communication** **3 credits**
Development of the speaking voice as an instrument of communication on or off stage. Exercises in relaxation, breathing, breath control, voice production, phonetics.

Dr 210 **Physical Communication** **5 credits**
Instruction in mime to express inner and outer worlds through the body. Dance movement and period style. Exercises for development of imagination, coordination, body awareness.

Dr 221 **Improvisation** **3 credits**
Living in free form under imaginary circumstances. Group exercises and improvisations for development of sensory perception and imagination.

Dr 222 **Acting** **3 credits**
Study and practice in modern realistic acting: preparation, presentation and criticism.

Dr 264 **Scene Sculpture and Painting** **3 credits**
Exposure to contemporary materials and techniques in the design, construction and painting of scene art. Lab and Lecture.

Dr 265 **Light, Color, Sound** **2 credits**
Exposure to contemporary materials, equipment and practices in the design and execution of lighting and creation of sound for theatre. Lab and Lecture.

Dr 266 **Fashion and Dress** **3 credits**
Exposure to contemporary materials, procedures and techniques in design and construction of costumes for theatre; with emphasis on the history of fashion and dress. Lab and Lecture.

Dr 267 **Makeup** **2 credits**
Exposure to contemporary materials and techniques in the design and execution of makeup for theatre; work in specialized techniques. Lab and Lecture.

Dr 291 **Special Topics** **1-5 credits**
Dr 292 **Special Topics** **1-5 credits**
Dr 293 **Special Topics** **1-5 credits**

Dr 320 **Theatre: Form and Content I** **5 credits**
Dr 321 **Theatre: Form and Content II** **5 credits**
Dr 322 **Theatre: Form and Content III** **5 credits**
A study of historical events and ideas which formed the theatre in all its aspects. I: Greeks to Elizabethans; II: 17th to 19th Century; III: 19th and 20th Century.

Dr 400 **Ensemble** **1-5 credits**
Dr 401 **Ensemble** **1-5 credits**
Dr 402 **Ensemble** **1-5 credits**

Dr 404 **Playwriting** **5 credits**
Study and practice in the form and method of script construction.

Dr 415 **Theatre Perspectives** **5 credits**
Study of the nature of theatrical genre: Tragedy, Comedy and mixture of these and other forms of theatre.

Dr 420 **Directing** **2 credits**
Theory and practice in principles of directing various styles of drama.

Dr 421 **Directing Experience** **2 credits**
Practical application of directing principles. Work done on campus or in the community. Prerequisite: Dr 420 or permission.

Dr 425 **Drama Internship** **1-12 credits**
Apprenticeship in specific area of study in the community or on campus under the supervision of the drama faculty. Prerequisite: Drama majors only. Permission.

Dr 455 **Theatre: Spatial and Visual** **5 credits**
Development of the stage in Western Culture from Greeks to the present; emphasis on evolution of theatre building and physical elements of theatre production. Seminar.

Dr 480 **Theatre Organization and Management** **2 credits**
Establishing and operating a theatre, including planning, budgeting and accounting, staffing, production selection, promotion, ticket sales, fund raising.

Dr 491 **Special Topics** **1-5 credits**
Dr 492 **Special Topics** **1-5 credits**
Dr 493 **Special Topics** **1-5 credits**

Dr 497 **Independent Study** **1-5 credits**
Dr 498 **Independent Study** **1-5 credits**
Dr 499 **Independent Study** **1-5 credits**

Music Courses

Mu 110 **Piano Lessons** **1 credits**
Mandatory CR/NC

Mu 111 **Vocal Lessons** **1 credit**
Mandatory CR/NC

Mu 114 **Music Fundamentals and Methods** **5 credits**
Rudiments of music and methods that will lead to a successful music program in the elementary school. Required of all majors in elementary school education.

Mu 115 **Theory I** **5 credits**
Mu 116 **Theory II** **5 credits**
Mu 117 **Theory III** **5 credits**
Basic musicianship, stressing scales and tonality, modes, intervals, chords,rhythm, form. Knowledge of these concepts will be acquired by listening, singing, analysis, discussion and keyboard practice. Prerequisite: Placement by examination.

Mu 120 **Violin** **1 credits**
Mandatory CR/NC

Mu 122 **Cello** **1 credit**
Mandatory CR/NC

Mu 123 **Classical Guitar** **1 credit**
Mandatory CR/NC

Mu 125 **Organ** **1 credit**
Mandatory CR/NC

Mu 130 **A Cappella Choir** **1 credit**
Mandatory CR/NC.

Mu 131 **Vocal Ensemble** **1 credit**
Mandatory CR/NC.

Mu 135 **Fine Arts Ensemble** **1 credit**
Instruments, singers, dancers and actors in ensemble performance. Mandatory CR/NC.

Mu 136 **Orchestra** **1 credit**
Prerequisite: Audition. Mandatory CR/NC

Mu 151 **Songwriting** **5 credits**
A course for beginners in music theory. This course is designed for the general student.

Mu 200 **Music of J.S. Bach** **2 credits**
Analysis of his instrumental and vocal music, particularly as reflecting the ultimate refinement of Baroque form. Prerequisite: FA 103

Mu 201 **Studies in American Music** **3 credits**
Survey from the early folksong to the vocal and instrumental music of the present.

Mu 202 **History of Opera** **3 credits**
Consideration of the basic elements in the combination of music and drama with a historical survey of the various solutions offered to the problems involved. Prerequisite: FA 103.

Mu 205 **Symphonies of Beethoven** **3 credits**
Nine works, preceded by a brief consideration of symphonic form. Prerequisite: FA 103.

Mu 207 **History of Jazz** **2 credits**
Explorations of origins in Afro-American culture, its evolution as a result of merging cultures and the accomplishment of a distinctly new musical language.

Mu 215 **Theory IV** **5 credits**
Mu 216 **Theory V** **5 credits**
Advanced musicianship, beginning part writing and analysis.

Mu 217 **Theory VI** **5 credits**
Advanced musicianship, part writing and analysis. Harmonic style of the common-practice period up to the late Nineteenth Century. Corequisites: Mu 216 with 372; 217 with 373.

Mu 251 **Electronic Music** **3 credits**
Creative modification of electronic sound by means of synthesizers. Lectures and individual laboratory work. Recommended for public school teachers. No prerequisites.

Mu 291 **Special Topics** **1-5 credits**
Mu 292 **Special Topics** **1-5 credits**
Mu 293 **Special Topics** **1-5 credits**

Mu 372 **History and Literature of Music Classic Period** **3 credits**
Corequisite: Mu 216.

Mu 373 **History and Literature of Music Romantic Period** **3 credits**
Corequisite: Mu 217.

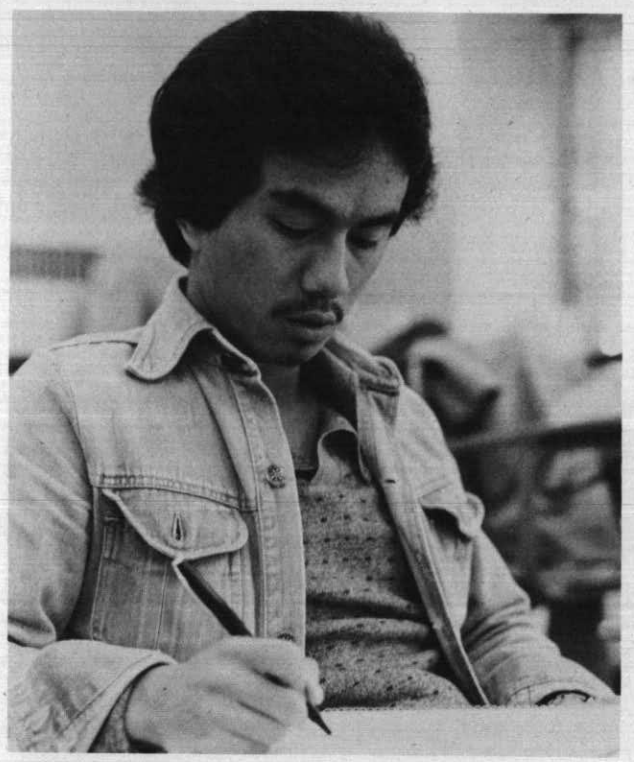
Mu 415 **Modal Counterpoint, Literature and History of the Middle Ages and Renaissance** **5 credits**
Sixteenth-Century contrapuntal style as found in the music of Palestrina and his contemporaries. For music majors.

Mu 416 **Tonal Counterpoint, Literature and History of the Baroque Era** **5 credits**
Eighteenth-Century contrapuntal style as found in the music of Bach and his contemporaries. For music majors.

Mu 417 **Contemporary Counterpoint, Literature and History of the 20th Century** **5 credits**
Contrapuntal techniques as used by composers in the Twentieth Century. For music majors.

Mu 418 **Orchestration and Harmonic Analysis** **5 credits**
Practical application of study of the instruments and their creative use. Prerequisite: Permission of adviser.

Mu 491 **Special Topics** **1-5 credits**
Mu 492 **Special Topics** **1-5 credits**
Mu 493 **Special Topics** **1-5 credits**



Foreign Languages

R. Maxime Marinoni, Ph.D., Chairman

Objectives

The foreign language programs in French, German, Italian, Spanish, Latin and Greek all recognize academic, cultural and practical purposes.

Academic — These goals aim at broadening the scope of the student's intellectual formation by affording facility in one or more languages and a background in other cultures. This end is achieved through a major-minor in foreign languages; or a double major, coupling proficiency in a foreign language with a major in another field.

Cultural — Learning about another culture and civilization, its history, geography, literature and arts through the medium of its language leads to better understanding one's self and the world. To achieve this goal all foreign language courses are taught in their cultural context. Courses in French, German and Spanish are taught in the vernacular with the exception of the following: Fr 105, Fr 106, Fr 390; Gr 105, Gr 106, Gr 390; Sp 105, Sp 106 and Sp 390.

Practical — Career opportunities involving foreign languages are good. For the university student trained in a particular field with the extra asset, proficiency in foreign languages, openings exist in the following fields: teaching, government, military, social and foreign service; professions such as international law, engineering, librarianship, foreign trade and international management.

To meet these objectivés, the Foreign Languages department offers regular, intensive, specialized and multi-discipline courses and programs.

Degrees Offered

Bachelor of Arts
Master of Education — F/L Teaching (French) — See Graduate Bulletin
Master of Arts in Education — F/L Teaching (French) See Graduate Bulletin

General Program Requirements

Students majoring in a foreign language must satisfy the core curriculum requirements of the University, as given on page 18 of this bulletin.

Departmental Requirements

Bachelor of Arts (modern languages) — 40 credits beyond the elementary language courses 115, 125 and 135. These 40 credits must include 215, 225, 235, 315, 325 and any three courses at the 400 level.

Teaching Major (School of Education) — 40 credits beyond elementary courses 115, 125, 135. The 40 credits must include courses 215, 225, 235, 315, and 325. French, German and Spanish only.

Undergraduate Minor (modern languages) — 20 credits beyond elementary language courses 115, 125 and 135. Those 20 credits must be earned in 215, 225, 235 and 315.

Undergraduate Minor (classicial languages) — 25 credits which must include two special topics couses.

International Studies

The French-in-France Program offers a full academic year of study (45 credits) of French language, culture and civilization in Grenoble, France under the direction of regular faculty. The program is open to all students of the University, with no prerequisites.

The German-in-Austria program offers one full academic year of study in Graz, Austria, under the direction of regular faculty. There are no language prerequisites and the program is open to all students.

Reading Programs (sequence of two courses: 105, 106) prepare the student to translate the written text with accuracy and comprehension for scholarly purposes. They fulfill the foreign language requirements and help the student gain the facility needed to pass the graduate language examination.

The reading language requirements may not be satisfied by examination in a student's native language, since the intent of such a requirement is mastery of a language new to the student.

Intensive programs are offered during the summer quarter, in which one year's work in a language can be done, earning 15 credits.

Credit by examination and waiver — The Foreign Languages department, reserves the right to waive all or part of the degree requirements for students who demonstrate, by examination, achievement at the college level. Courses may be waived, allowing substitution of electives, or credit may be obtained by meeting the University's requirements for credit by examination.

Recommended Study Program

Bachelor of Arts — Modern Languages

Freshman year

English 100, 133, 134 or 200 ..... 15 credits
History ..... 15 credits
Major Language 115, 125, 135 ..... 15 credits

Sophomore year

Major Language 215, 225, 235 ..... 15 credits
Philosophy 110, 220 and core option ..... 15 credits
Social science core ..... 10 credits
Theology core ..... 5 credits

Junior year

Major Language 315, 325, one 400 level .... 15 credits
Mathematics/Science core options ..... 10 credits
Minor Language 115, 125, 135 ..... 15 credits
Theology core ..... 5 credits

Senior year

Major Language, Two 400 level ..... 10 credits
Minor Language 215, 225, 235, 315 ..... 20 credits
Electives ..... 15 credits

Total . . . . 180 credits

Modern Language Courses

French Courses

Fr 105	**Reading French**	**5 credits**
Fr 106	**Reading French**	**5 credits**
	An intensive two-course program of study of written French for reading and translation with accuracy and comprehension.	
Fr 115	**French Language I**	**5 credits**
Fr 125	**French Language II**	**5 credits**
Fr 135	**French Language III**	**5 credits**
Fr 215	**French Language IV**	**5 credits**
Fr 225	**French Language V**	**5 credits**
Fr 235	**French Language VI**	**5 credits**
Fr 291	**Special Topics**	**2-5 credits**
Fr 292	**Special Topics**	**2-5 credits**
Fr 293	**Special Topics**	**2-5 credits**
Fr 315	**French Culture, Civilization, History and Geography**	**5 credits**
Fr 325	**Introduction to French Literature**	**5 credits**
Fr 390	**French Literature in Translation**	**2-5 credits**
Fr 415	**XIXth Century, Literary Movements**	**5 credits**
Fr 425	**XVIIth Century, Classicism**	**5 credits**
Fr 435	**XVIIIth Century, The Enlightenment**	**5 credits**
Fr 445	**XXth Century, Contemporary Literature**	**5 credits**
Fr 450	**Methodology of Teaching the French Language**	**5 credits**
Fr 451	**Teaching French Culture and Civilization**	**5 credits**
Fr 452	**Language Improvement**	**5 credits**
Fr 455	**Methodology of Teaching Foreign Languages (French)**	**2-5 credits**
Fr 460	**Theories, Techniques and Practice of teaching the French Language**	**5 credits**
Fr 461	**Theories, Techniques and Practice of Teaching French Culture and Civilization**	**5 credits**
Fr 462	**Teaching Internship**	**5 credits**
Fr 465	**Comparative Methods, Techniques and Performance Objectives of Foreign Language Teaching**	**3 credits**

Fr 491	**Supervised Studies**	**2-5 credits**
Fr 492	**Supervised Studies**	**2-5 credits**
Fr 493	**Supervised Studies**	**2-5 credits**

German Courses

Gr 105	**Reading German**	**5 credits**
Gr 106	**Reading German**	**5 credits**
	An intensive two-course program of study of written German for reading and translation with accuracy and comprehension.	
Gr 115	**German Language I**	**5 credits**
Gr 125	**German Language II**	**5 credits**
Gr 135	**German Language III**	**5 credits**
Gr 215	**German Language IV**	**5 credits**
Gr 225	**German Language V**	**5 credits**
Gr 235	**German Language VI**	**5 credits**
Gr 291	**Special Topics**	**2-5 credits**
Gr 292	**Special Topics**	**2-5 credits**
Gr 293	**Special Topics**	**2-5 credits**
Gr 315	**German Culture, Civilization, History and Geography**	**5 credits**
Gr 325	**Introduction to German Literature**	**5 credits**
Gr 390	**German Literature in Translation**	**2-5 credits**
Gr 416	**Literature and Culture, Beginning to the 18th Century**	**5 credits**
Gr 426	**Literature and Culture, 18th Century**	**5 credits**
Gr 431	**Literature and Culture, 19th Century**	**5 credits**
Gr 436	**Literature and Culture, 20th Century**	**5 credits**
Gr 440	**German Classicism and Romanticism**	**5 credits**
Gr 446	**Literature Trends of Modern Austria, West and East Germany**	**5 credits**
Gr 450	**Methodology of Teaching the German Language**	**5 credits**
Gr 451	**Teaching German Culture and Civilization**	**5 credits**
Gr 452	**Language Improvement**	**5 credits**
Gr 491	**Supervised Studies**	**2-5 credits**
Gr 492	**Supervised Studies**	**2-5 credits**
Gr 493	**Supervised Studies**	**2-5 credits**

Italian Courses

It 101	**Reading Italian I**	**5 credits**
It 102	**Reading Italian II**	**5 credits**
It 103	**Reading Italian III**	**5 credits**
	Intensive study of written Italian for reading and translation with accuracy and comprehension.	
It 291	**Special Topics**	**1-5 credits**
It 292	**Special Topics**	**1-5 credits**
It 293	**Special Topics**	**1-5 credits**

Spanish Courses

Sp 105	**Reading Spanish**	**5 credits**
Sp 106	**Reading Spanish**	**5 credits**
	An intensive two-course program of study of written Spanish for reading and translation with accuracy and comprehension.	
Sp 115	**Spanish Language I**	**5 credits**
Sp 125	**Spanish Language II**	**5 credits**
Sp 135	**Spanish Language III**	**5 credits**
Sp 215	**Spanish Language IV**	**5 credits**
Sp 225	**Spanish Language V**	**5 credits**
Sp 235	**Spanish Language VI**	**5 credits**
Sp 291	**Special Topics**	**2-5 credits**
Sp 292	**Special Topics**	**2-5 credits**
Sp 293	**Special Topics**	**2-5 credits**
Sp 315	**Spanish Culture, Civilization, History and Geography**	**5 credits**
Sp 325	**Introduction to Spanish Literature**	**5 credits**
Sp 390	**Spanish Literature in Translation**	**2-5 credits**
Sp 416	**19th Century Spanish Literature**	**5 credits**
Sp 426	**20th Century Spanish Literature**	**5 credits**
Sp 436	**Spanish American Literature before 1900**	**5 credits**
Sp 441	**20th Century Spanish American Literature**	**5 credits**
Sp 446	**Golden Age Literature**	**5 credits**
Sp 450	**Methodology of Teaching the Spanish Language**	**5 credits**
Sp 451	**Teaching Spanish Culture and Civilization**	**5 credits**
Sp 452	**Language Improvement** (Sp 450, 451, 452 form part of the requirements for the BA in Education F/L Teaching-Spanish)	**5 credits**
Sp 455	**Methodology of Teaching Foreign Languages** (Spanish)	**2-5 credits**
Sp 491	**Supervised Studies**	**2-5 credits**
Sp 492	**Supervised Studies**	**2-5 credits**
Sp 493	**Supervised Studies**	**2-5 credits**

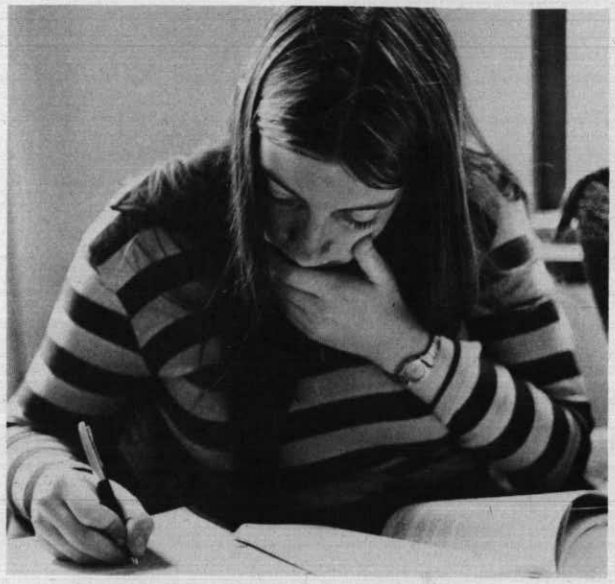
Classical Language Courses

Greek Courses

Gk 101	**Greek Language I**	**5 credits**
Gk 102	**Greek Language II**	**5 credits**
Gk 103	**Greek Language III**	**5 credits**
	Functional treatment of the phonology, morphology, syntax and lexicon of Koine Greek with readings from the New Testament.	
Gk 291	**Special Topics**	**2-5 credits**
Gk 292	**Special Topics**	**2-5 credits**
Gk 293	**Special Topics**	**2-5 credits**
Gk 390	**Greek Literature in Translation** (for non-minors only)	**2-5 credits**

Latin Courses

Lt 101	**Latin Language I**	**5 credits**
Lt 102	**Latin Language II**	**5 credits**
Lt 103	**Latin Language III**	**5 credits**
	Phonology, morphology, syntax and lexicon of Classical Latin.	
Lt 291	**Special Topics**	**2-5 credits**
Lt 292	**Special Topics**	**2-5 credits**
Lt 390	**Latin Literature in Translation** (for non-minors only)	**2-5 credits**



General Studies Program

Mary Margaret Ridge, B.A., Director

Objectives

Students who have a wide range of interests and want a broad liberal arts education, AS WELL AS THOSE WHO HAVE NOT YET DECIDED UPON A MAJOR, may enroll in the General Studies Program. Such students begin their University work by taking core curriculum subjects required for all majors. They may then select courses from two or three related fields, and formulate a program that will best suit the needs of their long-range goals.

The thrust of the program looks to constructing in-depth combinations of a variety of disciplines such as fine arts, humanities, social sciences, or any other a-typical interdisciplinary synthesis.

A student admitted to the General Studies Program may also transfer to one of the traditional majors of the College of Arts and Sciences, or to one of the professional schools, such as Business, Education, Nursing, Science and Engineering. A student may change at any time as long as academic qualifications for the intended program are met.

Degrees Offered

Bachelor of Arts in Humanities
Bachelor of Arts in Social Science

General Program Requirements

Requirements of a General Studies degree are 60 credits beyond the core, of which 40 credits must be taken in courses designated 300 or 400 level, plus five credits in an interdisciplinary seminar to be taken during the senior year.

Suggested combinations are: 40 hours in one subject and 20 in another; or 35 hours in one, 15 in a second, and 10 in a third; or 25, 20 and 15. THE SELECTION OF SUBJECTS AND THEIR MEANINGFUL COMBINATION IS THE RESPONSIBILITY OF THE STUDENTS IN CONSULTATION WITH THE PROGRAM DIRECTOR OR AN ASSIGNED ACADEMIC ADVISER.

History

Robert D. Saltvig, Ph.D., Chairman

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.

Degrees Offered

Bachelor of Arts

General Program Requirements

Students in history must satisfy the core curriculum requirements of the University as given on pages 18 and 19 of this bulletin. Required sequences are 15 credits of philosophy and 10 credits each of English, theology, social science and mathematics/science.

Departmental Requirements

Bachelor of Arts — 60 credits including Hs 104 and 105, 200, 400, 499. Of the remaining 35 credits, 20 are to be taken in a general area (Western Europe, United States, Russia-China-Japan). Study of a modern foreign language is highly recommended.

Undergraduate Minor — 35 credits of history of which Hs 104 and 105 are required.

Teaching Major (School of Education) — 55 credits of history, including Hs 104, 105, 231, 341 and seven upper-division courses.

Bachelor of Arts

Freshman year

English 100 and core option	10 credits
Hs 104, 105 and history elective	15 credits
Philosophy 110	5 credits
Electives	15 credits

Sophomore year

History 200 and electives	15 credits
Philosophy 220 and core option	10 credits
Theology core option	5 credits
Electives	15 credits

Junior year

History electives	15 credits
Mathematics/Science core options	10 credits
Social science core option	5 credits
Theology core option	5 credits
Electives	10 credits

Senior year

Modern language or electives	10 credits
History 400, 499 and elective	15 credits
Social Science core option	5 credits
Electives	15 credits
Total	180 credits

History Courses

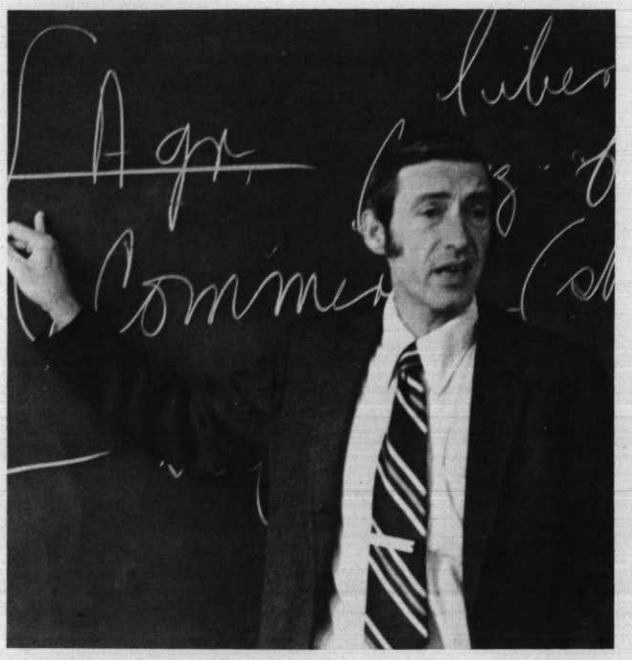
Hs 100 **Origins of the Modern World** **5 credits**
An interpretation of the historical development of contemporary society.

Hs 104 **Western Civilization I** **5 credits**
A study of the ideas, values and institutions that comprised Western Civilization, through the 17th century.

Hs 105 **Western Civilization II** **5 credits**
The development of Western civilization from the 18th through the 20th centuries and its impact on the non-Western World.

Hs 200 **Methodology** **5 credits**
Techniques of historical research, criticism and writing.

Hs 231 **Survey of the United States** **5 credits**
Events, movements, ideas and institutions of American history from the era of discovery to the present.



Hs 251 **Survey of Latin America** **5 credits**
Events, movements and institutions of Latin American history from the era of discovery to the present.

Hs 261 **Survey of African Cultures** **5 credits**
A cultural study of the ancient, medieval and modern peoples of Black Africa, with emphasis on social, religious, and political institutions and the cultural contributions of Africans to American culture.

Hs 271 **Survey of Russian History** **5 credits**
An introduction to the history and culture of Russia and the Soviet Union.

Hs 281 **Survey of the Far East since 1900** **5 credits**
Domestic and international development of China, Japan and the states of Southeast Asia.

Hs 291 **Special Topics** **1-5 credits**
Hs 292 **Special Topics** **1-5 credits**
Hs 293 **Special Topics** **1-5 credits**

Hs 303 **Foundations of European Civilization** **5 credits**
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 credits**
Analysis of the cultural, political and social institutions of Medieval Europe.

Hs 307 **Europe in the Age of the Renaissance** **5 credits**
Europe of the 14th through the 16th centuries. An analysis of the concept of Renaissance and the historical reality in both southern and northern Europe.

Hs 309 **Early Modern Europe** **5 credits**
Analysis of specific problems of the Protestant Reformation and the Catholic Counter-Reformation, as arising from Renaissance humanism, and in relationship to modern institutionalization.

Hs 311 **Europe of the 18th Century** **5 credits**
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 credits**
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 credits**
Contemporary movements and institutions.

Hs 321 **Modern France** **5 credits**
Development of cultural and political France from the 17th century to the present.

Hs 325 **Modern Western Culture** **5 credits**
Reading in interpretive and secondary literature investigating the relationship of Christianity to 19th and 20th century Western culture.

Hs 331 **Colonial North America** **5 credits**
European discoveries, explorations and settlements from the 16th through the late 18th centuries.

Hs 333 **The Beginnings of the United States** **5 credits**
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 credits**
The Age of Jackson, territorial expansion, slavery and abolition, civil war and reconstruction.

Hs 337 **The United States in the Progressive Era** **5 credits**
Industrialization, immigration, urbanization and their effects on American society and politics.

Hs 339 **Recent United States** **5 credits**
The culture of the 1920's, the Great Depression, the Second World War, contemporary American society.

Hs 341 **The Pacific Northwest** **5 credits**
Past development and present problems of the states comprising the Pacific Northwest with emphasis on Washington state.

Hs 343 **American Society and Culture** **5 credits**
Social and intellectual history of the United States, with emphasis on the 19th and 20th centuries.

Hs 345 **American Urban History** **5 credits**
The rise of the American city, its role in American culture, and reactions to it.

Hs 349 **Afro-American History** **5 credits**
African origins, the slave trade, the Afro-American experience; the contributions of Afro-Americans to American culture.

Hs 351 **Mexico** **5 credits**
Formation and development of the Mexican nation from pre-Columbian and Spanish origins to the present.

Hs 353 **Brazil** **5 credits**
Development, under Portugese and other influences, of the Brazilian nationality and culture to the present.

Hs 364 England (to 1715) 5 credits
The transformation of a traditional society, the crisis of revolution, and the emergence of the first modern state.

Hs 365 Modern Britain 5 credits
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 twentieth century.

Hs 367 History of Ireland 5 credits
The development of Ireland from pre-historic times to the present. Celtic civilization, Anglo-Norman invasion and the blending of cultures. Present problems of the North and the South.

Hs 373 Modern Russia 5 credits
History and culture of the Russian people in the 19th and 20th centuries.

Hs 381 Chinese Civilization 5 credits
The development of Chinese culture, thought, and institutions down to the late 19th century.

Hs 383 China-20th Century 5 credits
The western impact and the Chinese revolutions from the Opium War to the People's Republic.

Hs 385 Traditional Japan 5 credits
The development of Japanese culture, thought and institutions to 1867.

Hs 387 Modern Japan 5 credits
The transformation of Japan from feudalism to imperial power and industrial giant, 1867 to present.

Hs 389 History of Hawaii 5 credits
Cultural and political history of Hawaii and an introduction to Hawaii's place in Pacific developments in the modern world.

Hs 391 Special Topics 1-5 credits
Hs 392 Special Topics 1-5 credits
Hs 393 Special Topics 1-5 credits
Private work by arrangement, with the approval of department chairman.

Hs 400 Historiography 5 credits
Historical study and writing and the philosophy of history from the earliest times to the present.

Hs 412 The French Revolution and Napoleon 5 credits
Studies in the institutions and events which led to the fall of old France.

Hs 414 Modern Germany 5 credits
Studies in German history and culture.

Hs 431 The Westward Movement 5 credits
American frontier history from colonial times to the end of the 19th century.

Hs 434 American Revolution and Confederation 5 credits
Events and interpretations in the history of the Atlantic seaboard provinces from the end of the Great War for Empire through independence and Confederated United States.

Hs 435 American Civil War and Reconstruction 5 credits
Political, social and economic aspects of the American civil war and reconstruction.

Hs 451 Pre-Columbian America 5 credits
Mayan, Aztec, Incan and other civilizations in subsequent Latin America.

Hs 463 Social and Intellectual Change in Tudor England 5 credits
Study of the relationships between thought and a late medieval society in transition.

Hs 481 Modern Asian Revolutions 5 credits
Problems and forces in selected examples of Asian nations in the 20th century, especially of circumstances, leaders, tactics, and doctrines of revolutionary groups in China, Viet Nam and Indonesia.

Hs 491 Special Topics 1-5 credits
Hs 492 Special Topics 1-5 credits
Hs 493 Special Topics 1-5 credits

Hs 497 Independent Study 1-5 credits
Hs 498 Independent Study 1-5 credits

Hs 499 Senior Seminar 5 credits

Honors Program

Rosaleen Trainor, CSJ, Ph.D., 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. For this reason it is historically conceived, beginning with the Ancient Near East and proceeding through the civilizations of the 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 cumulative and are given at the end of each quarter.

Scholarships/Applications

Scholarships are granted on a one-year basis, renewable on proof of competence. Applicants are chosen on the basis of their previous record and evidence that they are willing to make the effort necessary to achieve genuine superiority in the intellectual pursuits. In addition to application to Seattle University, candidates must apply directly to the Honors Program.

Program Requirements

When accepted in the Program, students complete each of the course sequences numbered Hu 101 through 243. Completion of the Honors Program satisfies University core requirements in philosophy, science, English, history and theology. Honors students, on completion of their two year program, transfer into one of the departments of the University to fulfill the requirements for their major. Students may elect to take Hu 398 or 499 while completing their major.

Honors Program Courses

Hu 101 **Humanities Seminar - Thought** **5 credits**
Hu 102 **Humanities Seminar - Thought** **5 credits**
Hu 103 **Humanities Seminar - Thought** **5 credits**
Three quarters of critical reading and discussion of the works which 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.

Hu 111 **Humanities Seminar - Literature** **4 credits**
Hu 112 **Humanities Seminar - Literature** **4 credits**
Hu 113 **Humanities Seminar - Literature** **4 credits**
Critical examination of those literary works which have most deeply influenced the development of the Western world, including the dramatic books of the Old Testament, Homer and the Greek playwrights, Virgil, The Cid, Song of Roland, Dante and Chaucer.

Hu 121 **Humanities Seminar - History** **4 credits**
Hu 122 **Humanities Seminar - History** **4 credits**
Hu 123 **Humanities Seminar - History** **4 credits**
Historical survey which also furnishes a background discipline for humanities-thought and humanities-literature, covering Hebrew, Greek, Roman and Medieval Christian history.

Hu 131 **Humanities Seminar - Science** **2 credits**
Hu 133 **Humanities Seminar - Science** **2 credits**
The history and nature of the physical sciences.

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

Hu 191* **Interdisciplinary Seminar** **2-10 credits**
Hu 192* **Interdisciplinary Seminar** **2-10 credits**

Hu 201 **Humanities Seminar - Thought** **4 credits**
Hu 202 **Humanities Seminar - Thought** **4 credits**
Hu 203 **Humanities Seminar - Thought** **5 credits**
Three quarters of critical reading and discussion, including Descartes, Bacon, Hobbes, Locke, Spinoza, Leibniz, Rousseau, Hume, Kant, Hegel, J.S. Mill, Nietzche, Marx, Sartre, Heidegger, Merleau-Ponty, Ricoeur.

Hu 211 **Humanities Seminar - Literature** **4 credits**
Hu 212 **Humanities Seminar - Literature** **4 credits**
Hu 213 **Humanities Seminar - Literature** **4 credits**
Shakespeare, Donne, Moliere, Milton, Dryden, Pope, Goethe, the Romantics,Victorians, Russian novelists and modern plays through the Existentialists.

Hu 221 **Humanities Seminar - History** **4 credits**
Hu 222 **Humanities Seminar - History** **4 credits**
Hu 223 **Humanities Seminar - History** **4 credits**
The Reformation to the present.

Hu 231 **Humanities Seminar - Science** **3 credits**
Hu 232 **Humanities Seminar - Science** **3 credits**
A study of some contemporary problems in the physical sciences.

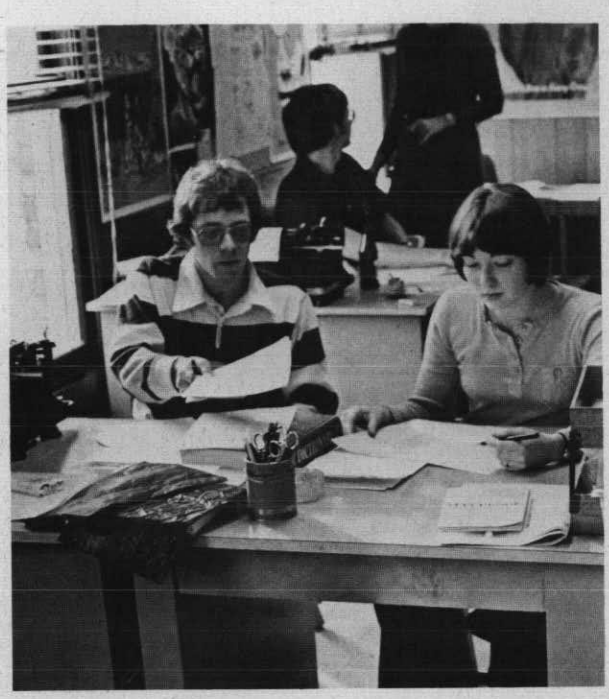
Hu 243 **Humanities Seminar - Music** **2 credits**
Synoptic view of music history with emphasis upon historical and cultural correlations.

Hu 291 **Special Topics** **1-5 credits**
Hu 292 **Special Topics** **1-5 credits**
Hu 293 **Special Topics** **1-5 credits**

Hu 398 **Humanities Special Topics** **1-5 credits**
Private work by arrangement. Prerequisite: Approval of program director.

Hu 499 **Humanities Senior Seminar** **5 credits**
Reading and discussion of major synthetic literature in the humanities on selected topics. Prerequisite: Approval of instructor.

* Not an Honors Program course



Journalism

John R.Talevich, M.A., Chairman

Objectives

To the University's basic liberal studies program, journalism adds courses designed to give the student an awareness of the role of mass communications in a free society and the special knowledge and skills required for effective communication.

The journalism program is specifically directed toward editorial competence, the basis for careers in all areas of mass communications. It seeks to produce graduates who can become responsible professional journalists or who can undertake graduate study in specialized areas.

Degree Offered

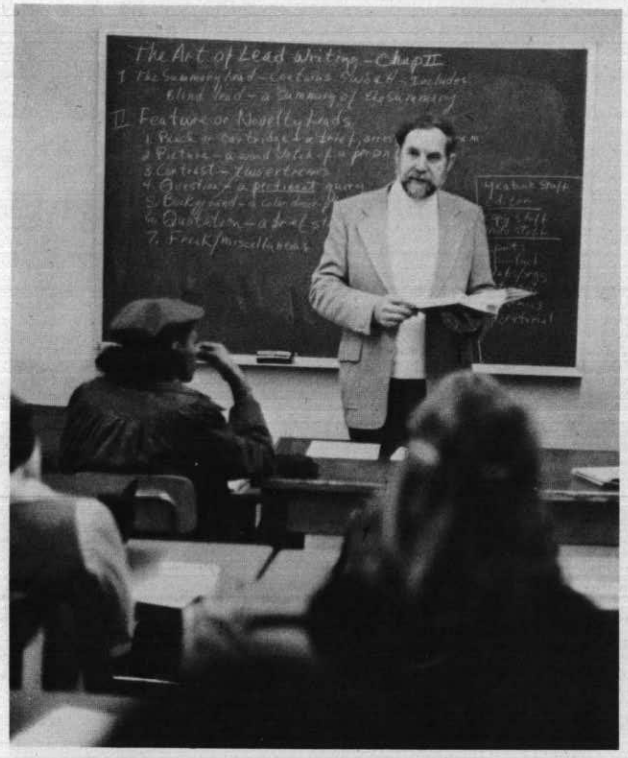
Bachelor of Arts

General Program Requirements

Students in journalism must satisfy the core curriculum requirements of the University as given on page 18 of this bulletin. Journalism students must receive a minimum grade of C in any journalism course to be applied toward major requirements. A student must have a minimum typing average of 40 words per minute to enroll in journalism writing courses.

During the freshman year the journalism student will be asked to specify an area of interest such as print or broadcast journalism, advertising or public relations, or graduate study. With an adviser he/she will then plan a sequence of courses, in journalism and in related areas, to meet individual requirements.

Practical experience is an essential complement to the journalism student's course work. This experience may be gained through part-time work on off-campus media, as a staff member of a student publication or in internships.



Bachelor of Arts

Freshman year

English 100 and core option	10 credits
History 101, 102 or 102, 103	10 credits
Journalism 100	5 credits
Philosophy 110, 220	10 credits
Social Science core options	10 credits

Sophomore year

Journalism 200, 210, 250	15 credits
Modern Language, Fine Arts or Speech/Drama options	10 credits
Philosophy core option	5 credits
Social Science option	5 credits
Theology core options	10 credits

Junior year

English 200/300 options	10 credits
History 331 or 333 or 335 or 337 or 339 or 347 or 348 or approved substitutes	10 credits
Journalism 330 and 300/400 options	15 credits
Electives	10 credits

Senior year

Journalism 300/400 options	15 credits
Mathematics/Science core options	10 credits
Electives	20 credits
Total	180 credits

Departmental Requirements

Bachelor of Arts — 50 credits in journalism which must include Jr 100, 200, 210, 250, 330 and 25 credits in courses numbered 300 and above; 10 credits of English beyond core requirements numbered 200 or above; 5 additional credits of social science; 10 credits of upper division United States history courses (or approved substitutes); 10 credits of language or fine arts and/or speech and drama courses.

Journalism-English Interdisciplinary Program — 60 credits which must include Jr 100, 200, 210, 250, 330 and 15 credits chosen from Jr 310, 350, 370 and 430; and 20 credits chosen from En 250, 305, 382, 407, 488 and 490.

Journalism/Fine Arts Interdisciplinary Program—60 credits which must include Jr 100, 200, 210, 250, 330, 430 and 10 credits chosen from Jr 350, 370 or internship; and 20 credits of fine arts courses chosen in consultation with the adviser. Students in this program must also take the 10 credits of language/fine arts required by the department in the fine arts area.

Undergraduate Minor — 30 credits which must include Jr 100, 200, 210, 250 and 10 credits of additional courses numbered 300 and above.

Undergraduate Minor (teaching) — 25 credits which must include Jr 100, 200, 210, 250 and 465 or approved substitute.

Journalism Courses

Jr 100 **Introduction to Journalism** **5 credits**
Review of grammar for journalists. Introduction to journalistic style; writing news leads and basic news stories. (fall)

Jr 200 **Mass Communication and Society** **5 credits**
Historical press concepts; nature and functions of the mass media; social, political and economic roles; principles governing journalistic communication; role of the news consumer. (fall)

Jr 210 **Newswriting** **5 credits**
Elements of the news story; practice in gathering data for and writing news stories. Prerequisite: Jr 100

Jr 250 **Newsediting** **5 credits**
Copy and proof editing procedures; headline writing, layout and makeup of the newspaper; photographic editing techniques.

Jr 291 **Special Topics** **1-5 credits**
Jr 292 **Special Topics** **1-5 credits**
Jr 293 **Special Topics** **1-5 credits**

Jr 310 **Reporting Public Affairs** **5 credits**
Study of and practice in gathering and writing complex news stories based upon activities of government, judicial and community agencies. Prerequisite: Jr 210. (Biennially, fall)

Jr 320 **Photojournalism I** **2 credits**
Jr 321 **Photojournalism II** **2 credits**
Elementary principles of newsphotography, processing and picture editing. Photography for student publications. Prerequisite: Permission of department chairman. (Biennially, I-fall, II-winter)

Jr 330 **History of Journalism** **5 credits**
Study of the origins and growth of the American press from colonial to modern times. (Biennially)

Jr 345 **Mass Communications Law** **3 credits**
Constitutional guarantees and restrictions on freedom of information, with a study of significant cases; libel, copyright, privacy, postal regulations. (Biennially)

Jr 350 **Magazine and Feature Writing** **5 credits**
Elements of non-fiction articles for newspapers and magazines; study of markets; writing for sale. (Biennially)

Jr 355 **Communications Graphics** **5 credits**
Basic typographic, layout and design concepts. Editing techniques for organizational publications. Planning and purchasing printing. (Biennially, winter)

Jr 370 **Editorial and Opinion Writing** **5 credits**
Nature, function and structure of persuasive writing; analysis of media editorials; practice in editorial writing. (Biennially, spring)

Jr 380 **Publications I** **1 credit**
Jr 381 **Publications II** **1 credit**
Jr 382 **Publications III** **1 credit**
Supervised editorial work on The Spectator and The Aegis. Prerequisite: Permission of department chairman. Mandatory CR/NC. (I-fall, II-winter, III-spring)

Jr 430 **Reviewing the Arts** **5 credits**
Reading, discussion and writing of newspaper and magazine style reviews of books, movies, television and musical and theatrical presentations. (Biennially)

Jr 460 **Public Relations** **5 credits**
Public relations as a management function; policies, procedures and problems; program analysis and case study. (Biennially, spring)

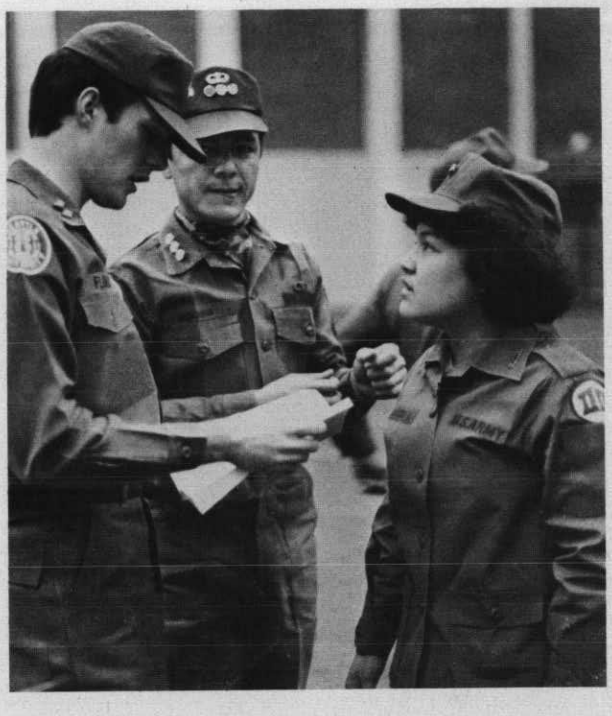
Jr 465 **Publications' Advising** **5 credits**
Policies, techniques and problems in advising school publications. (summer)

Jr 480 **Publications IV** **1 credit**
Jr 481 **Publications V** **1 credit**
Jr 482 **Publications VI** **1 credit**
Advanced, supervised editorial work on The Spectator and The Aegis. Prerequisite: Permission of department chairman. Mandatory CR/NC. (IV-fall, V-winter, VI-spring)

Jr 490 **Journalism Ethics** **3 credits**
Seminar in contemporary ethical problems for journalists.

Jr 491 **Special Topics** **1-5 credits**
Jr 492 **Special Topics** **1-5 credits**
Jr 493 **Special Topics** **1-5 credits**

Jr 497 **Independent Study** **1-5 credits**
Jr 498 **Independent Study** **1-5 credits**
Jr 499 **Independent Study** **1-5 credits**
Supervised research in communications; special projects; internships on media and affiliated agencies. For journalism students only. Prerequisite: Permission of department chairman.



Military Science

Lt. Colonel James G. Adams, M.S., Chairman

Objectives

The Military Science program is specifically designed to give college men and women training and experience in the art of organizing, motivating and leading others. It includes instruction to develop self-discipline, physical stamina, and bearing—qualities that are an important part of leadership and should contribute to success in any kind of career, military or civilian. The emphasis is on "doing" rather than classroom instruction alone. Department philosophy is that leadership is learned only by leading, and ample opportunity is provided in the Military Science program for the practice of leadership under the supervision of experienced instructors.

The Army Reserve Officer's Training Corps (Army ROTC) program is conducted by the Military Science department to develop college educated officers for the Army and Army Reserve. Through Army ROTC the man or woman who wants an Army career can earn either a Regular Army or Reserve commission as a lieutenant. A student may take Army ROTC by two different methods; by enrolling in Army ROTC as an elective and majoring in some other academic discipline, or by majoring in Military Science.

Degree Offered

Bachelor of Science in Military Science

General Program Requirements

Students in Military Science must satisfy the University core curriculum requirements as given on page 18. Military Science majors must also satisfy requirements for a minor in some other academic discipline.

Programs

Three distinct programs are conducted by the Military Science department: Basic Army ROTC, Advanced Army ROTC, and the Military Science degree program.

Basic Program—The basic course is elective for all physically fit students at the University. The course consists of two hours of classroom instruction per week and three hours of leadership workshop twice a month for six academic quarters (freshman and sophomore years). Students who are unable to participate in ROTC classes on campus during their first two years of college may satisfy requirements for Basic Army ROTC by attending Army ROTC Basic Camp for six weeks during the summer after their sophomore year.

Advanced Army ROTC—The advanced course is elective for qualified students who have received credit for the two-year basic course or successfully completed basic camp. The course consists of three hours of classroom instruction per week and three hours of leadership workshop twice a month for six academic quarters (junior and senior years). Advanced course students must also attend Army ROTC Advanced Camp for six weeks during the summer between the junior and senior year. Advanced course students receive $100 per month allowance for up to 20 months of their junior/senior years. Upon completion of advanced course requirements and graduation from the University, students are commissioned as second lieutenants in the Regular Army or Army Reserve.

Degree Requirements

Bachelor of Science in Military Science—40 credits in military science, successful completion of the Army ROTC advanced course, and completion of requirements for a minor in another academic discipline.

Undergraduate Minor—32 credits in military science which must include successful completion of the Army ROTC advanced course.

Scholarships

Army ROTC scholarships are available to selected students who desire a military career. Expenses for tuition, books and fees are paid for one, two, three or four years, and each student receives a $100 per month allowance for each school year while on scholarship. For more information write the Professor of Military Science, Seattle University.

Bachelor of Science in Military Science

Basic Course

Freshman year (MS I)

English core requirement	10 credits
History core requirement	10 credits
Mathematics/science core requirement	10 credits
Military Science 101, 102, 103	6 credits
Philosophy core requirement	5 credits

Sophomore year (MS II)

Military Science 201, 202, 203	6 credits
Philosophy core requirement	10 credits
Social science core requirement	10 credits
Theology and Religious Studies core requirement	10 credits
Electives	10 credits

Advanced Course

Junior Year (MS III)

Military Science 301, 302, 303, 304	16 credits
Minor concentration	15 credits
Electives	15 credits

Senior year (MS IV)

Military Science 401, 402, 403	12 credits
Minor concentration	15 credits
Electives	20 credits
Total	180 credits

Military Science Basic Courses

MS 101 Basic Officer Development I — **2 credits**
Hands on instruction in basic officer skills, to include map reading, compass, rifle marksmanship and survival. Field trips. (fall).

MS 102 Basic Officer Development II — **2 credits**
Continuation of Fall Quarter. Hands on instruction in first aid, rifle marksmanship, and squad/team tactics. Field trips. (winter).

MS 103 American Military History — **2 credits**
United States military history from the colonial wars to the Vietnam conflict. Emphasis is on military leadership, the principles of war, and development of the military art. (spring)

MS 201 Preparation for Leadership **2 credits**
Development of individual skills in basic map reading, to include compass and orienteering techniques. Discussion of military equipment and technology available to the small unit leader. (fall).

MS 202 Concepts of Military Operations **2 credits**
Application of the principles of warfare by small unit leaders. Principles of offense and defense at the squad level to include tactical formations and battle drill. (winter).

MS 203 Communication Skills Development **2 credits**
Development of oral and written communication skills for the military leader. Practical application through student presentations and writing projects. (spring).

MS 204 Army ROTC Basic Camp **4 credits**
Military training at Fort Knox, Kentucky qualifying students for advanced course. Open to academic juniors with no ROTC experience. Receive pay, travel expenses. Six weeks during summer.

MS 291 Special Topics **1-5 credits**
MS 292 Special Topics **1-5 credits**
MS 293 Special Topics **1-5 credits**

Military Science Advanced Courses

MS 301 Military Topographical Analysis **4 credits**
Principles of land navigation, orienteering, terrain analysis, map reading and aerial photograph interpretation for the small unit leader.

MS 302 Tactical Operations **4 credits**
The role of the company commander and subordinate leaders during tactical operations. Planning and execution of small unit offensive and defense maneuvers. (winter)

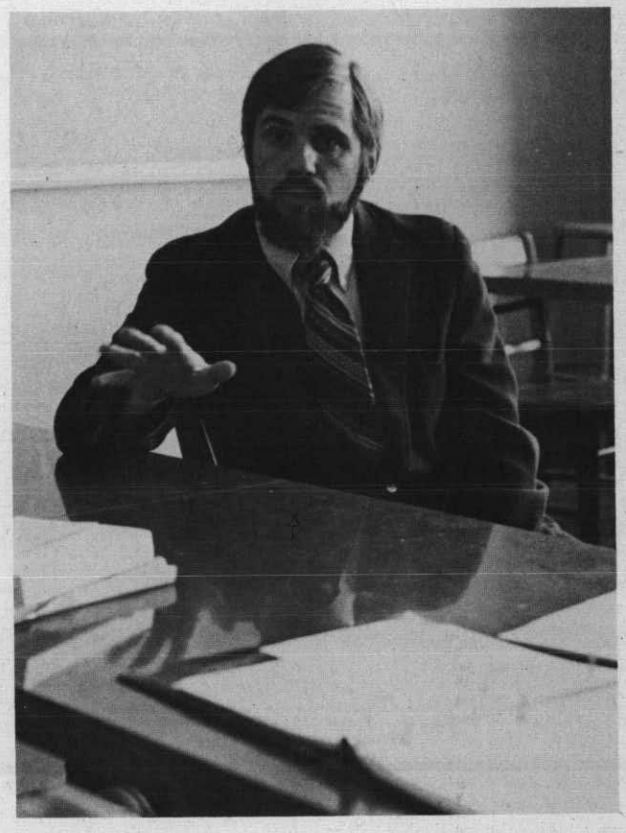
MS 303 Preparation for Leadership **4 credits**
Special problems of military leaders. Adjustment to military life. Selected military subjects in preparation for Army ROTC advanced camp. Pre-camp testing and evaluation. (spring)

MS 304 Army ROTC Advanced Camp **4 credits**
Students perform as leaders in variety of roles, both administrative and tactical. Conducted for six weeks during summer. Successful completion of Advanced Camp required for commissioning. Prerequisite: MS 303. (spring)

MS 401 The Military Team **4 credits**
Discussion of command and staff. Concepts of planning, coordination, and decision-making at battalion and company level. (fall)

MS 402 Military Logistics/Military Justice **4 credits**
Discussion of logistical management of the Army support system. The Military Justice system and its importance to military discipline. (winter)

MS 403 The US Military and World Affairs **4 credits**
The interrelationship of the US with other nations. Selected military subjects in preparation for commissioned service. (spring)



Philosophy

James B. Reichmann, SJ, Ph.D., Chairman

Objectives

The task of philosophy is to study the world and man in terms of that which constitutes their inner-most unity and meaning. It seeks to discover those all-pervasive factors in the world which refuse to yield to the segregating tendencies of a fragmentary approach to knowledge and to truth. It strives to introduce the student to the language of universal communication whereby he/she might translate the complex manifold of human experience into relevant and creative meaning for themselves and for society. It raises such searching questions as: What is the function of language? What is the meaning of knowing? What is change and is anything permanent? What does it mean to exist? What is the nature of value and can value be merely relative? What is man and his destiny? Can God's existence be rationally determined? What is the nature and origin of evil?

The philosophy taught at Seattle University strives to raise these and similarly significant questions in an atmosphere conducive to facilitating the student's search for truth. It unashamedly recognizes its debt to the past, particularly to those philosophers who have presented a realist view of man and the world compatible with the Judaeo-Christian vision of the universe. At the same time it realizes that to remain dynamically relevant to the contemporary age it must advance and grow and be ever open to new problems, new ideas, new contributions and new perspectives.

Degrees Offered

Bachelor of Arts
Master of Arts — See Graduate Bulletin

General Program Requirements

Students in philosophy must satisfy the core curriculum requirements of the University as given on page 18 of this bulletin. In addition, students in philosophy must take 10 credits of language.

Departmental Requirements

Bachelor of Arts — 55 credits of philosophy which must include PI 110, 220, 250 and 260 plus a program of seven upper division courses. These seven courses must include one from each of the following pairings: PI 340 or 350; 400 or 420; 460 or 465. Qualified students may substitute a written thesis for one of the required courses. Five credits are granted for the thesis which is written under the direction of a faculty member.

Undergraduate Minor — 35 credits of philosophy which must include PI 110, 220, 250, 260 and three upper division courses offered by the department.

Bachelor of Arts

Freshman year

English 100 and core option	10 credits
History core option	10 credits
Philosophy 110, 220	10 credits
Social Science core options	10 credits
Elective	5 credits

Sophomore year

Mathematics/Science core options	10 credits
Philosophy 250, 260 and seminar	15 credits
Elective	15 credits

Junior year

Modern language 105, 106	10 credits
Philosophy seminars	15 credits
Electives	20 credits

Senior year

Philosophy seminars	15 credits
Theology elective	5 credits
Electives	25 credits
Total	180 credits

Philosophy Courses

PI 110 Philosophical Problems: World — **5 credits**
A combined historical and problematic approach to the nature of philosophical inquiry. An introduction to fundamental philosophical problems of being, language, logic, knowledge, reality, human existence and God.

PI 220 Philosophical Problems—Man — **5 credits**
Systematic study of man, his nature and his powers. Special emphasis on the human knowing process and the problems of human freedom and personal responsibility. Prerequisite: PI 110.

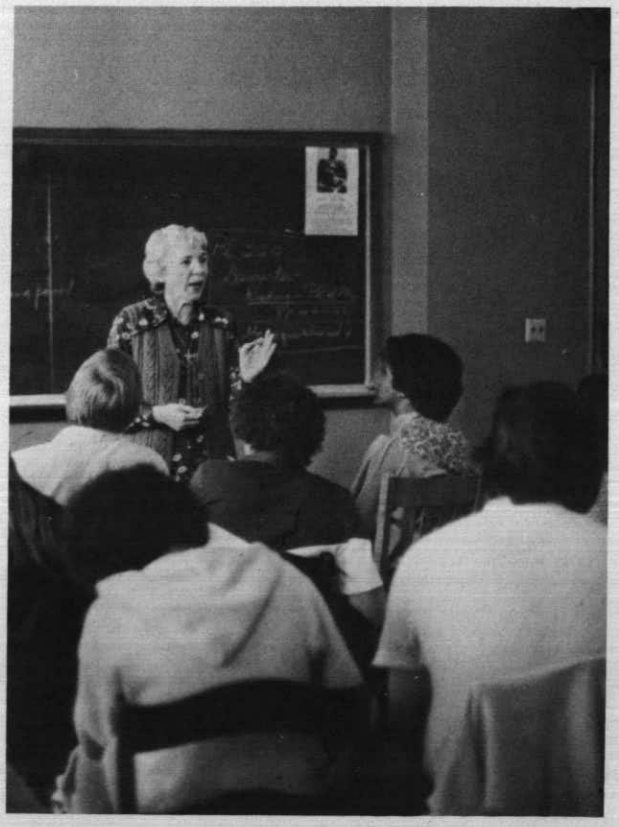
PI 231 Introduction to Ancient Greek Philosophy — **5 credits**
Readings from source material of the philosophy of the ancient Greeks. Investigation of the topics, problems and doctrines of the pre-Socratics, Plato and Aristotle. Prerequisite: PI 220.

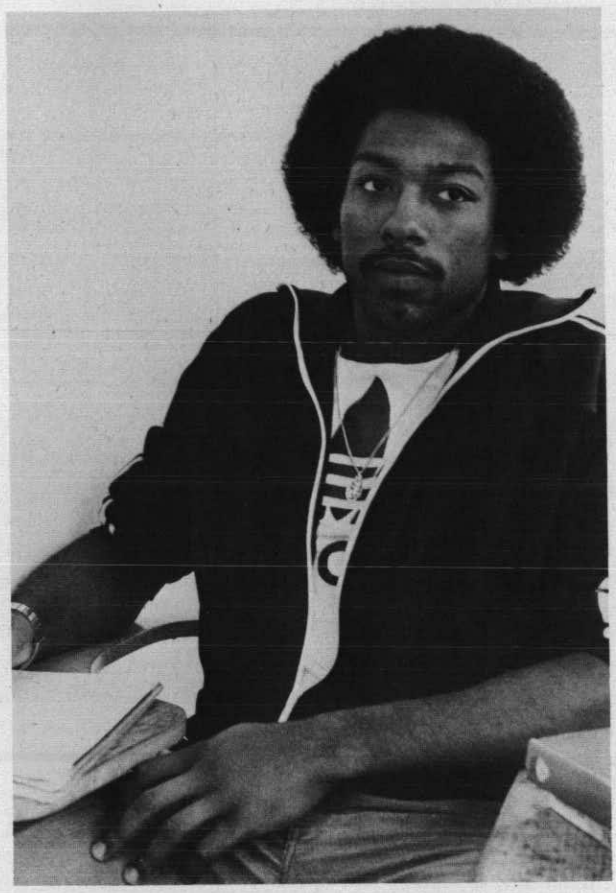
PI 232 Introduction to Medieval Philosophy — **5 credits**
Synthesis of medieval philosophy in its historical perspective with a particular examination of the themes of Arabic, Scholastic and Nominalist metaphysics. Prerequisite: PI 220.

PI 233 Introduction to Modern Philosophy — **5 credits**
Readings from source material of the modern philosophers. Investigation of topics, problems and doctrines of selected authors from Descrates to Kant. Prerequisite: PI 220.

PI 250 Ethics — **5 credits**
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: PI 220.

PI 252 Business Ethics — **5 credits**
Application of general ethical theory to those problems directly related to the business world; employment practices, wages, advertising, honesty, strikes. Prerequisite: PI 220.





PI 255 **Medical Ethics** **5 credits**
Application of general ethical theory to basic problems encountered in the medical profession; fees, professional secrecy, rights of patients, abortion, transplants, drugs. Prerequisite: PI 220.

PI 260 **Logic I** **5 credits**
Systematic treatment of traditional logic. The themes of communication and language, division and definition, propositions, syllogisms and the nature of science will be examined.

PI 261 **Logic II** **5 credits**
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. Prerequisite: PI 220.

PI 291 **Special Topics** **1-5 credits**
PI 292 **Special Topics** **1-5 credits**
PI 293 **Special Topics** **1-5 credits**
Prerequisite: PI 220

PI 300 **Philosophy of Nature** **5 credits**
Philosophical appraisal of the material universe, its nature, causes and activities, incorporating the mathematical and experimental findings into the philosophical account of the cosmos. Prerequisite: PI 220.

PI 303 **Philosophy of Science** **5 credits**
Philosophical reflections on the historical development of the scientific view of the cosmos. Readings from significant sources. Prerequisite: PI 220.

PI 305 **Philosophy of Science — The Behavioral Science** **5 credits**
Study of the philosophical implications and presuppositions of the methodology and conceptual framework of the behavioral sciences; special emphasis on behavioral psychology and statistical analysis. Prerequisite: PI 220.

PI 307 **Philosophy of Science — The Life Sciences** **5 credits**
Consideration of the basic problems concerning the meaning, origin, evolution and structure of organic life. Prerequisite: PI 220.

PI 310 **Contemporary Ethical Theory** **5 credits**
Selected readings from contemporary moral philosphers such as Hare, Stevenson and Fletcher. Prerequisite: PI 220.

PI 312 **Contemporary Social Ethics** **5 credits**
Moral problems facing urbanized man in his contemporary setting. Prerequisite: PI 220.

PI 325 **Philosophy of Art** **5 credits**
Philosophical reflection on the nature of art and its reality; beauty as a transcendental property of being and its relationship to art and the artist. Prerequisite: PI 220.

PI 330 **Cognitional Analysis** **5 credits**
Study of the dynamics of man's cognitional structure and of the implications of this dynamism for metaphysics and ethics based on Lonergan's "Insight" and related writings. Prerequisite: PI 220.

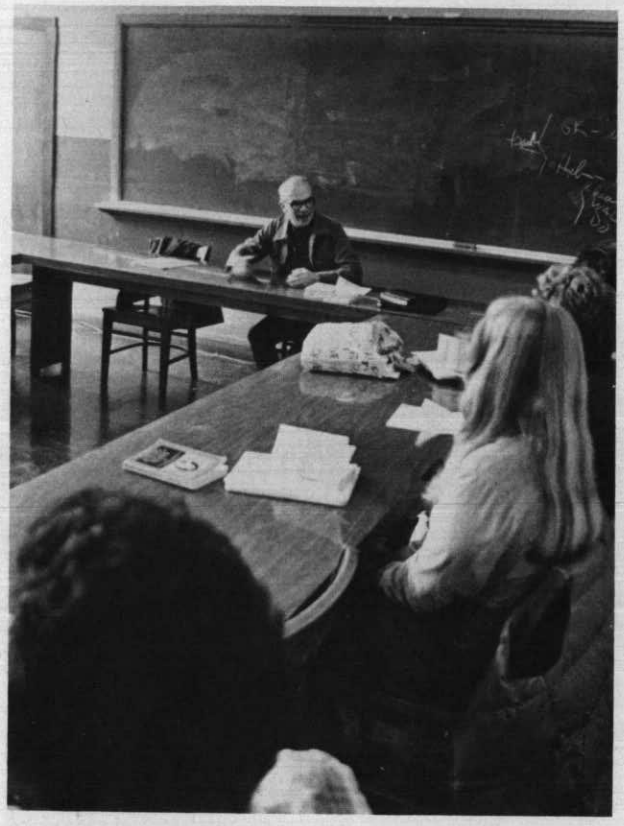
PI 340 **Plato** **5 credits**
Selected readings from Plato's "Dialogues." Prerequisite: PI 220.

PI 350 **Aristotle** **5 credits**
Selected readings from the writings of Aristotle. Prerequisite: PI 220.

PI 355 **19th Century Philosophy** **5 credits**
Readings from source material of the 19th Century philosophers. Investigation of central topics, problems and teachings of selected authors from Hegel to Nietzsche. Prerequisite: PI 220.

PI 360 **20th Century Philosophy— The Analytic Tradition** **5 credits**
Readings from source material from 20th Century analytic philosophers. Investigation of contemporary schools of logical positivism and linguistic analysis from Russell to Wittgenstein. Prerequisite: PI 220.

PI 365 **20th Century Philosophy— The Speculative Tradition** **5 credits**
Readings from source material of 20th Century process philosophers from Bergson to Whitehead and of the phenomenological tradition from Husserl to Sartre. Prerequisite: PI 220.



PI 400 **St. Augustine** **5 credits**
Readings from the important writings of St. Augustine, such as "The Confessions," "City of God." Prerequisite: PI 220.

PI 410 **Early Medieval Philosophy** **5 credits**
Philosophy of the early medieval period from Augustine to Aquinas, including leading Arab and Jewish philosophers. Prerequisite: PI 220.

PI 420 **St. Thomas Aquinas** **5 credits**
Selected readings from the writings of St. Thomas Aquinas. Prerequisite: PI 220.

PI 450 **Descartes** **5 credits**
Consideration of his principal writings, discussion of clear and distinct ideas, the methodic doubt, the existence and attributes of God, the nature of the material world, the mind-body problem. Prerequisite: PI 220.

PI 455 **British Empiricism of the Seventeenth Century** **5 credits**
Study of British Empiricism with special emphasis on Locke, Berkeley and Hume. Prerequisite: PI 220.

PI 456 **17th Century Rationalism** **5 credits**
Philosophical systems of Spinoza and Leibnitz. Prerequisite: PI 220.

PI 460 **Kant** **5 credits**
Seminar in "The Critique of Pure Reason" with a brief supplementary discussion of the moral rationalism of Emmanuel Kant. Prerequisite: PI 220.

PI 465 **Hegel** **5 credits**
Philosophy of Hegel with emphasis on "The Phenomenology of Spirit" and "The Philosophy of History." Prerequisite: PI 220.

PI 467 **Philosophy of Communism** **5 credits**
Investigation of selected writings from such framers of the philosophy of communism as Marx, Engels, Feuerbach and Lenin. Prerequisite: PI 220.

PI 468 **Marx** **5 credits**
A study of the historical background, philosophic origins and nature of the dialectical materialism of Karl Marx. Prerequisite: PI 220.

PI 470 **Philosophy of Society** **5 credits**
Consideration of the social nature of man, purpose of society, social groups, the common good, subsidiarity, pluralism and authority. Prerequisite: PI 220.

PI 478 **Process Philosophy** **5 credits**
Selected readings from philosophers of process such as Bergson, Dewey, Whitehead and Teilhard de Chardin. Prerequisite: PI 220.

PI 483 **Heidegger** **5 credits**
Investigation of his theory of being and its relation to man and to time, especially as seen in "Being and Time" and "The Introduction to Metaphysics." Prerequisites: PI 220.

PI 484 **Merleau-Ponty** **5 credits**
His philosophy as set forth in "The Phenomenology of Perception" and "The Structure of Behavior." Prerequisite: PI 220.

PI 488 **Early Existentialism** **5 credits**
Philosophies of Klerkegaard, Nietzsche and Dostoievski, with emphasis on their existentialist trends. Prerequisite: PI 220

PI 489 **Existentialism** **5 credits**
Selected readings from contemporary existentialist figures including Sartre, Heidegger, de Beauvoir, Camus, Jaspers, Marcel and Tillich. Prerequisite: PI 220.

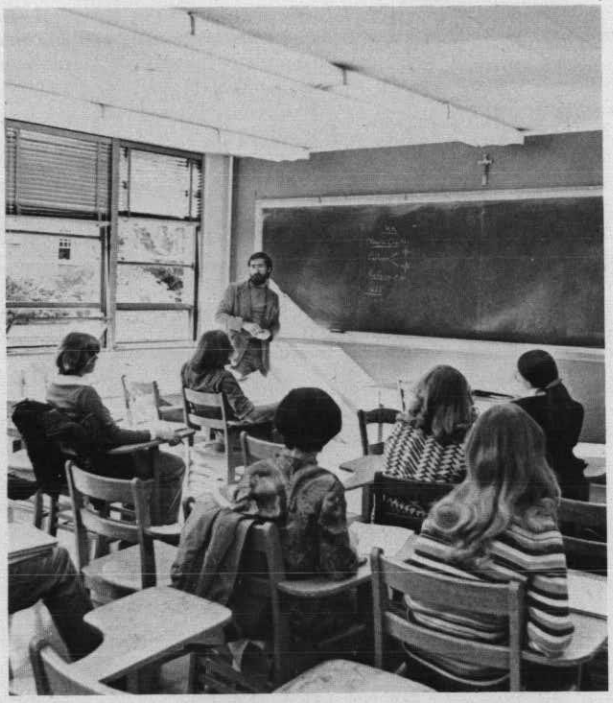
PI 491 **Special Topics in Philosophy** **1-5 credits**
PI 492 **Special Topics in Philosophy** **1-5 credits**
PI 493 **Special Topics in Philosophy** **1-5 credits**

PI 494 **Seminar** **5 credits**
PI 495 **Seminar** **5 credits**

PI 496 **Senior Seminar** **5 credits**
Specially directed projects in research. Limited to seniors in Arts and Sciences. Prerequisite: PI 220 and at least two other courses in the 300/400 series.

PI 497 **Independent Study** **1-5 credits**
PI 498 **Independent Study** **1-5 credits**

PI 499 **Thesis** **1-5 credits**
Original philosophical investigation under the direction of a faculty member appointed by the chairman of the department. Prerequisite: PI 220.



Political Science

Ben Cashman, Ph.D., Chairman

Objectives

The curriculum in political science introduces the student to political values, trains in political analysis and informs of government processes at the international, national, state and local level. It prepares students for graduate study or for careers in government, research, teaching or private enterprise where either a knowledge of political science or a broad liberal arts background is required.

The Bachelor of Public Affairs program is flexible and designed to serve a variety of student interests within the broad area of public affairs and activities. A multidisciplinary curriculum, it offers the knowledge and skills needed for effective policy analysis and program implementation, and training for government employment or graduate studies.

Degrees Offered

Bachelor of Arts

Bachelor of Public Affairs

General Program Requirements

Students in political science must satisfy the core curriculum requirements of the University as given on page 18 of this bulletin. Political science majors are strongly encouraged to take additional courses in English, history, philosophy and theology and religious studies and are advised to enroll in courses in economics, psychology, sociology, fine arts and languages. Students who plan to attend law school after graduating in political science should take accounting.

Departmental Requirements

Bachelor of Arts — 60 credits of political science which must include Pls 150 and 160. Majors must select two courses in each of the four major subdivisions of the department and two additional in the area in which they intend to specialize. The four major subdivisions of the department and the applicable courses are: American Government and Politics — Pls 210, 214, 280, 324, 370, 371, 372, 374, 375, 418, 419, 490.

International Relations and Foreign Policy — Pls 249, 350, 385, 391, 437, 438.

Comparative and Foreign Governments — Pls 200, 315, 330, 337, 440, 441, 442.

Political Thought and Theory—Pls 242, 289, 351, 353, 354, 355, 490.

Bachelor of Public Affairs — 70 credits of interdisciplinary business, economics, political science and public service courses of which 45 are mandatory — Pls 160, 210, 370, 488, 490, Pub 416, 430, 491 and Ec 471. The remaining 25 credits will be chosen from a list of multidisciplinary offerings in consultation between student and adviser. Five credits of internship are required but may be waived if the student has already acquired suitable public service experience. An additional 10 credits of internship may be taken but are in addition to the 70 credits required for the major. The internship is the link in the transition from classroom to employment.

Undergraduate Minor — 30 credits which must include Pls 150 and 160 and one course from each of the four major subdivisions of the department.

Bachelor of Arts

Freshman year

English 100 and core option	10 credits
History core options	10 credits
Philosophy 110, 220	10 credits
Political Science 150, 160	10 credits
Social Science core option	5 credits

Sophomore year

Philosophy core option	5 credits
Political Science	10 credits
Social Science core option	5 credits
Theology core options	10 credits
Electives	15 credits

Junior year

Mathematics/Science core options	10 credits
Political Science	20 credits
Electives	15 credits

Senior year

Political Science	20 credits
Electives	25 credits
Total	180 credits

Bachelor of Public Affairs

Freshman year

Economics 271	5 credits
English 100 and core option	10 credits
History core options	10 credits
Philosophy 110, 220	10 credits
Political Science 160, 210	10 credits

Sophomore year

Economics 272	5 credits
Mathematics 175	5 credits
Philosophy core option	5 credits
Political Science 370	5 credits
BPA option	5 credits
Theology core options	10 credits
Electives	10 credits

Junior year

Mathematics/Science core option	5 credits
Public Service 430	5 credits
Political Science 490	5 credits
BPA options	10 credits
Electives	20 credits

Senior year

Public Service 491	5 credits
Political Science 488	5 credits
Public Service 416	5 credits
Economics 471	5 credits
BPA options	10 credits
Electives	15 credits
Total	180 credits

Political Science Courses

Pls 150 Introduction to Politics **5 credits**
Concepts and methodologies of political science; foundations of political behavior and institutions; comparative study of political functions and structures; political ideologies; forms of political action.

Pls 160 American National Government **5 credits**
Study of the foundations, structures, functions of the executive, legislative and judicial branches of the government and their inter-relations with the popular processes of government.

Pls 200 Comparative European Democracies **5 credits**
Analysis of selected foreign democratic systems; constitutional and ideological principles, governmental forms, practices and problems.

Pls 210 Introduction to Local and State Politics **5 credits**
Examination of structures and functions of political institutions at local, state, county and special district levels, especially legislative, executive and judicial systems.

Pls 214 Government and the Economy **5 credits**
Government regulation and promotion of business, agricultural, labor and consumer interests. The regulatory agencies. Government corporations, anti-poverty programs. Government economic Stabilization policies, critique of American capitalism.

Pls 242 American Political Thought **5 credits**
Study of American political traditions; Puritanism, revolutionary thought, federalism, Jeffersonianism, intellectual democracy, slavery, progressivism, pragmatism, social utilitarianism and political thought in law and literature.

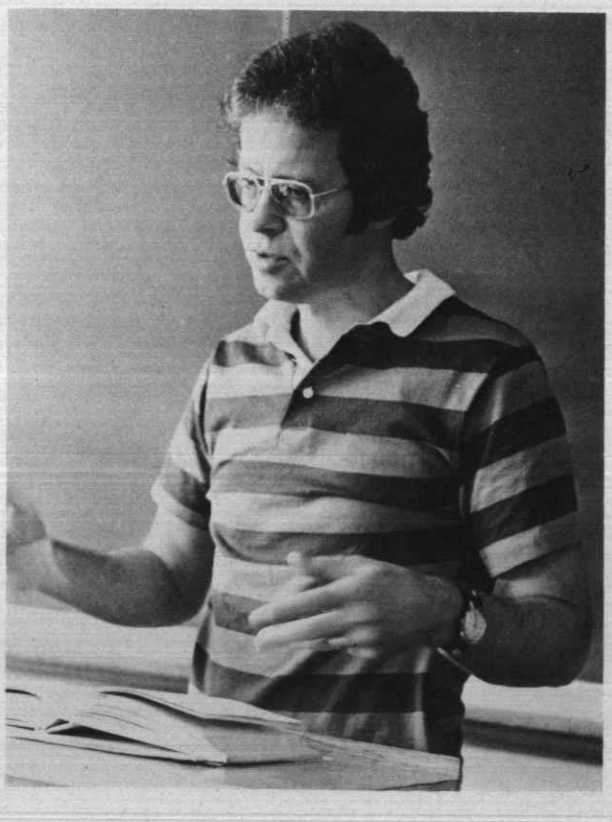
Pls 249 Introduction to International Politics **5 credits**
Analysis of the dynamic forces in international relations; power nationalism, sovereignty, colonialism, imperialism, theories of war and peace.

Pls 280 The Judicial Process **5 credits**
Overview of the role of law and the judiciary in American political life; the powers and limitations of the judiciary; individual rights in legal conflicts; study of selected key cases. Designed especially for non-majors.

Pls 289 Introduction to Political Philosophy **5 credits**
An overview of political ideas from East to West, from Plato to present; application of these ideas to contemporary society.

Pls 291 Special Topics **1-5 credits**
Pls 292 Special Topics **1-5 credits**
Pls 293 Special Topics **1-5 credits**

Pls 315 Comparative Totalitarian Systems **5 credits**
Study of 20th Century totalitarian ideologies and their influence on governmental functions and processes. Comparative study of selected communist states, military dictatorships and nationalist-authoritarian states.



Pls 324 Political Parties and Interest Groups **5 credits**
Theories, organization, strategy and leadership or American political parties, campaigns and party leadership. Role of interest groups in the American political process.

Pls 330 Government of the Soviet Union **5 credits**
Study of the ideological foundations of Soviet government, the functions of government, the role of the Party, the military and Soviet law.

Pls 337 Politics of Developing Countries **5 credits**
Emergence of nationalism, resistance and conflict in the modernization process, economic modernization, patterns and problems of political development.

Pls 350 International Law **5 credits**
Fundamentals of international law; states and international law; the individual in international law; creation; application and enforcement of international law.

Pls 351 Political Thought: Ancient and Medieval **5 credits**
Critical examination of political ideas from the pre-Socratics to 1400. Middle Eastern as well as Western Medieval ideas will be considered with emphasis on the reading of source materials.

Pls 353 Modern Political Thought **5 credits**
Political ideas from Machiavelli through Hobbes, Locke, Montesquieu, Rousseau, the English Utilitarians, 19th Century non-Marxian Socialism.

Pls 354 Comparative Marxist Political Theories **5 credits**
Critical examination of the chief theories developed by Marx, Engels, Lenin, Mao Tse Tung, Tito, Braz and certain revisionists.

Pls 355 Recent Political Theory **5 credits**
Critical analysis of political theories from Marx to the present.

Pls 370 Public Administration **5 credits**
Role of public administration in political system; relationship of bureaucracy to executive, judicial and legislative branches, budgetary process, personnel administration, organization theory; control of bureaucracy.

Pls 372 Urban Politics and Public Policy **5 credits**
Problems of large American cities with special emphasis on transportation, housing, public safety and planning problems. Fiscal problems of American cities; public school politics.

Pls 374 The American Presidency **5 credits**
Analysis of powers of American presidents: relationship with Congress, bureaucracy, judiciary, private sector and with foreign governments.

Pls 375 Minority Politics in the United States **5 credits**
Examinations of the non-white American in political and legal perspective and an analysis of alternatives for change. Prerequisite: Pls 160 or permission.

Pls 385 Peace and The United Nations **5 credits**
Introduction to the history, theories and problems of international organizations; the League of Nations and the United Nations and the Specialized Agencies.

Pls 391 United States Foreign Policy **3-5 credits**
Constitutional framework; major factors in formulation and execution of foreign policy; American policy in Europe, the Near East, Africa, the Far East and in Latin America historically and current.

Pls 418 Constitutional Law **5 credits**
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. Prerequisite: Junior or senior standing.

Pls 419 The Supreme Court and the Bill of Rights **5 credits**
Interpretation of the Bill of Rights by the Supreme Court and the impact on the individual and the States. Prerequisite: Junior or senior standing.

Pls 437 Peace Movements and World Government **5 credits**
An analysis of theoretical basis of regionalism and universalism as approaches to world peace. A study of current regional experiments; proposals for revision of U.N. Charter; World Federalism and World State.

Pls 438 Contemporary World Politics 5 credits
An examination of dominant political forces on today's international scene and effects of these forces on international relations, international law and international organizations.

Pls 440 Comparative Politics of Asia 5 credits
Analysis of selected Asian systems; governmental forms and ideologues; problems of nation-building; inter-state relations.

Pls 441 Comparative Politics of Africa 5 credits
Analysis of selected governments of Africa; constitutionalism, milarism, economic development and social change.

Pls 442 Comparative Politics of the Middle East 5 credits
Nature of the political conflict between Israel and her Arab neighbors; special emphasis on the political institutions of Egypt and Israel.

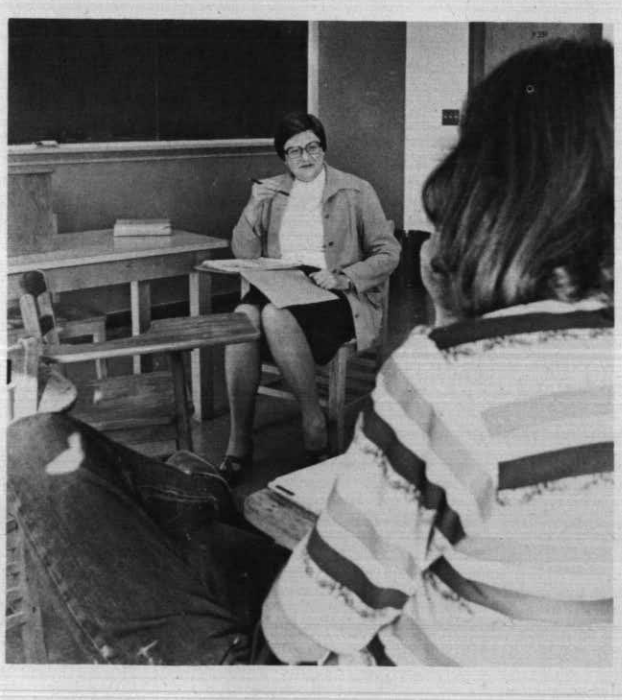
Pls 488 Internship 2-15 credits
On-the-job experience with appropriate governmental agency required for BPA degree. Students may register for no more than 15 total intern credits.

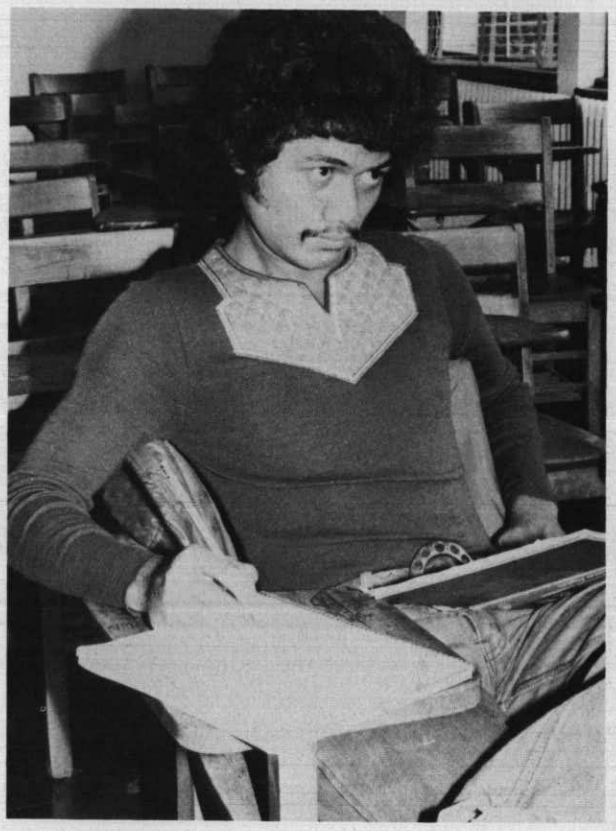
Pls 490 Scope/Methods in Public Policy Analysis 5 credits
Techniques of social science disciplines applied to analysis and implementation of policy; research design, data acquisition, index construction.

Pls 491 Special Topics 2-5 credits
Pls 492 Special Topics 2-5 credits
Pls 493 Special Topics 2-5 credits

Pls 494 Seminars 2-5 credits
Pls 495 Seminars 2-5 credits
Pls 496 Seminars 2-5 credits

Pls 497 Independent Study 2-5 credits
Pls 498 Independent Study 2-5 credits
Pls 499 Independent Study 2-5 credits





Prelaw

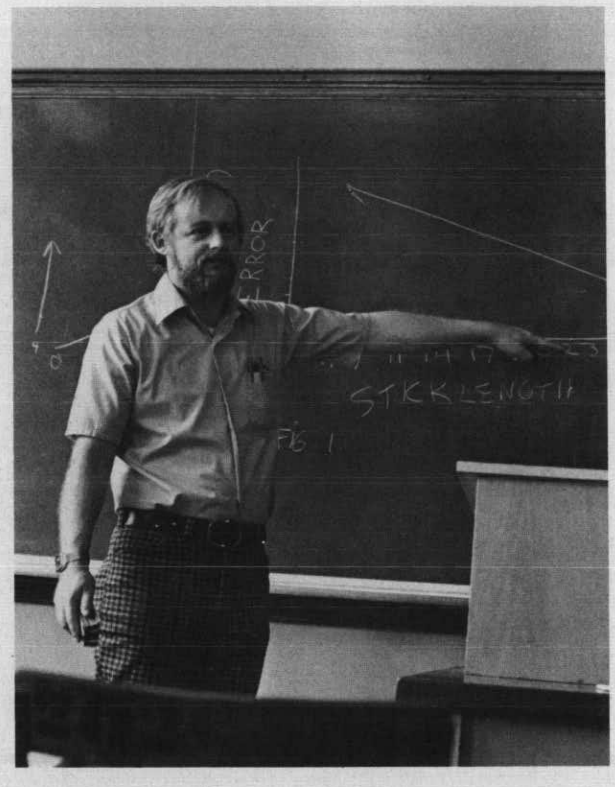
Ben Cashman, Ph.D., Adviser
Sr. Christopher Querin, SP, Ph.D., Adviser

Program

The best preparation and a requirement for entrance to many law schools is the completion of a four-year program for the bachelor's degree. Only a few law schools will admit students who have completed three years of undergraduate work.

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 human 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 General 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 admissions test. The application form and the instruction booklet for this test may be obtained from the prelaw adviser.



Psychology

George D. Kunz, Ph.D., Chairman

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 behavior. The specific and unique role of the Psychology department is to provide a solid knowledge of psychology as a science.

Degrees Offered

Bachelor of Arts
Bachelor of Science

General Program Requirements

Students in psychology must satisfy the core curriculum requirements of the University as given on page 18 of this bulletin. See programs of study for additional requirements.

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. All psychology majors must obtain a grade of C or higher in those courses listed below under department requirements, and must maintain a 2.00 grade point average in all other psychology courses.

Departmental Requirements

Bachelor of Arts — 45 credits of psychology which must include Psy 100, 201, 301 and 401.

Bachelor of Science — 45 credits of psychology which must include Psy 100, 201, 202, 301, 330, 401, 402 and a minimum of 40 credits of mathematics and physical science.

Undergraduate Minor — 30 credits of psychology which must include Psy 100.

Bachelor of Arts

Freshman year

English 100	5 credits
History core option	10 credits
Mathematics/Science core option	5 credits
Psychology 100	5 credits
Electives	20 credits

Sophomore year

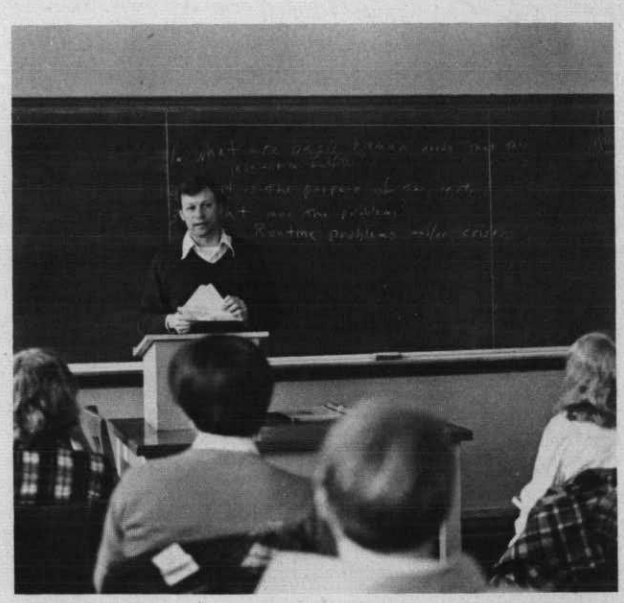
Mathematics/Science core option	5 credits
Philosophy 110, 220	10 credits
Psychology 201	5 credits
Social Science core option	5 credits
Electives	20 credits

Junior year

English core option	5 credits
Psychology and electives	10 credits
Social Science core option	5 credits
Theology core options	10 credits
Elective	5 credits

Senior year

Philosophy core option	5 credits
Psychology 301, 401	10 credits
Electives	30 credits
Total	180 credits



Bachelor of Science

Freshman year

English 100	5 credits
History core option	10 credits
Mathematics/Science electives	15 credits
Psychology 100	5 credits
Electives	10 credits

Sophomore year

Mathematics/Science electives	10 credits
Philosophy 110, 220	10 credits
Psychology 201, 202 and elective	13 credits
Social Science core option	5 credits
Electives	7 credits

Junior year

English core option	5 credits
Mathematics/Science electives	10 credits
Psychology electives	15 credits
Social Science core option	5 credits
Theology core options	10 credits

Senior year

Mathematics/Science elective	5 credits
Philosophy core option	5 credits
Psychology 301, 330, 401, 402	20 credits
Electives	15 credits
Total	180 credits

Psychology Courses

Psy 100 Introductory Psychology — **5 credits**
General introduction to the data of scientific psychology, including its nature, scope and method; organic, environmental and personal factors that influence human behavior. (fall, winter, spring)

Psy 201 Statistics I — **5 credits**

Psy 202 Statistics II — **3 credits**
I. Basic descriptive and inferential statistics; central tendency, variability, correlation and regression, probability, z and t tests, analysis of variance. II. Factorial designs and non-parametric statistics; Prerequisite: Psy 201 for 202. (I.-fall, winter, spring, II.-winter)

Psy 210 Personality Adjustment — **5 credits**
The normal personality; self-knowledge and self-actualization; personality adjustment problems; various inadequate reactions, escape and defense mechanisms; positive mental health. (fall, winter, spring)

Psy 291 Special Topics — **1-5 credits**
Psy 292 Special Topics — **1-5 credits**
Psy 293 Special Topics — **1-5 credits**

Psy 301 History and Schools of Psychology — **5 credits**
Survey of the history of psychology, including the classic periods of structuralism, functionalism, behaviorism, psychoanalytic schools and Gestalt. Prerequisite: Psy 100. (fall)

Psy 302 Contemporary Theories — **5 credits**
Critical examination of the major theories, issues and methodology in psychology since 1935; emphasis on personality, learning and perception. Prerequisite: Psy 301 or permission. (winter)

Psy 315 Abnormal Psychology — **5 credits**
Survey of abnormal mental and emotional life; symptoms, nature and causes of psychological disorders; abnormalities of specific functions; theories of etiology. Prerequisite: Psy 100. (fall)

Psy 322 Psychology of Growth and Development — **5 credits**
Development from infancy; formative aspects of childhood; puberty; characteristics and special problems of adolescents; emotional maturation. Prerequisite: Psy 100 or equivalent. (fall, winter, spring)

Psy 330 Physiological Psychology — **5 credits**
Biological basis of behavior, cerebrospinal, autonomic and sensory systems; endocrine glands, relation of the brain to behavior. Prerequisites: Psy 100 and human physiology. (spring)

Psy 380 Measurement in Psychology — **5 credits**
Principles of psychological measurement; nature, uses and limitations of psychological testing; reliability, validity. Prerequisite: Psy 201. (winter)

Psy 381 Psychological Tests — **3 credits**
Survey of commonly used tests; aim, content, administration, scoring and interpretation. Prerequisite: Psy 380. (spring)

Psy 390 Computer Research Methods — **3 credits**
Use of the electronic digital computer in behavioral science research. Laboratory session requires console technique and use of data processing equipment. Three lecture and three laboratory hours per week. Prerequisites: Psy 201. (winter)

Psy 401 Experimental Laboratory Psychology I — **5 credits**

Psy 402 Experimental Laboratory Psychology II — **5 credits**
I. Nature and interpretation of experimentation, basic experimental design; psychophysical methods; sensory and perceptual processes. II. Learning, student experience with animal conditioning. Three lecture and four laboratory hours per week. Prerequisites: Psy 100 and 201 for 401; 401 for 402. (I-fall, spring, II-winter)

Psy 427 The Counseling Interview **5 credits**
Basic theory, principles and dynamics of the counselor-client relationship and the counseling process. Prerequisite: Permission. (spring)

Psy 461 Theory of Group Dynamics **2 credits**
Survey of theories and empirical studies of the dynamics of group behavior; emphasis on means of more effective and productive group performance. Prerequisite: Psy 210 or equivalent. (fall, winter, spring)

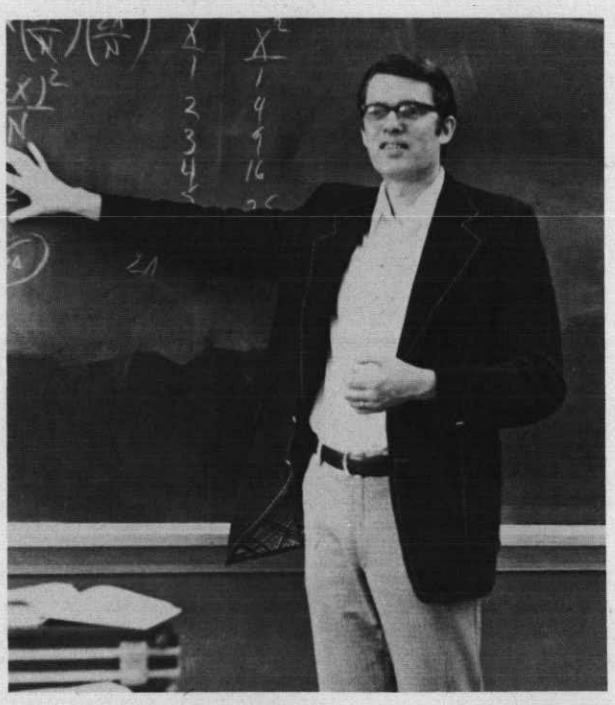
Psy 462 Experience of Group Dynamics **3 credits**
Experience of group dynamics through participation in a group; emphasis on experiencing interpersonal communication. Prerequisite: Psy 461. Mandatory C/NC. (fall, winter, spring)

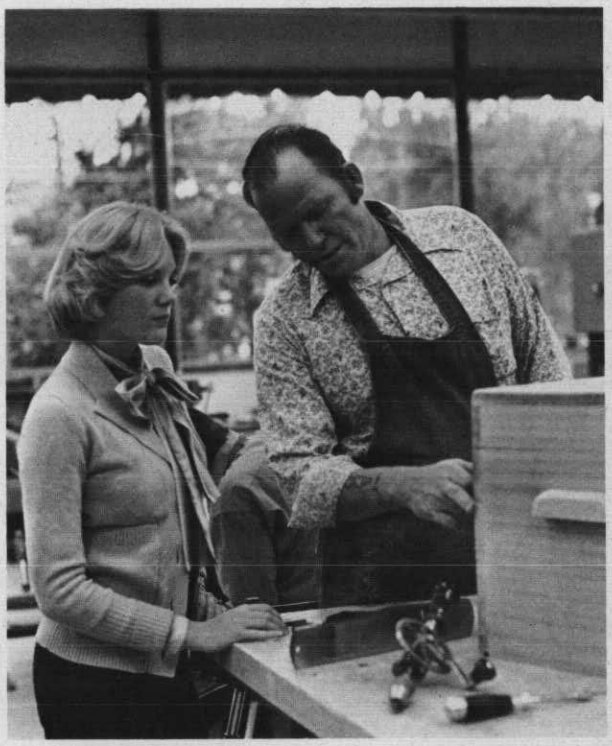
Psy 490 Symposium on Alcoholism **2-5 credits**
(Alc 400) Psychological, educational, physiological, social, industrial, psychiatric, therapeutic and rehabilitation aspects of the problem of alcoholism. Prerequisite: Junior or senior standing in psychology, sociology, premedicine or nursing, or permission. (winter)

Psy 491 Special Topics in Psychology **2-5 credits**
Psy 492 Special Topics in Psychology **2-5 credits**
Psy 493 Special Topics in Psychology **2-5 credits**
By arrangement. Prerequisite: Permission.

Psy 494 Seminar **2-5 credits**
Prerequisite: Permission. (fall)

Psy 497 Individual Research **2-5 credits**
Psy 498 Individual Research **2-5 credits**
Psy 499 Individual Research **2-5 credits**
By arrangement. Prerequisite: Permission.





Rehabilitation

Ekkehard J. Petring, Ph.D., Chairman

Objectives

The Rehabilitation Program is designed to train students to become vocational rehabilitation professionals who work with mentally and/or physically disabled persons. As rehabilitation professionals, their goal will be to move disabled individuals from a status of dependence to the level of maximum functioning of which they are capable. Accordingly, rehabilitation professionals deal with clients, primarily on a one-to-one basis, who have disabilities preventing them from obtaining or retaining employment. Based on the level of rehabilitative readiness, some of the disability groups rehabilitation professionals might work with include alcoholics, blind, deaf and hard-of-hearing, drug addicts, industrially injured, mentally ill, mentally retarded, public assistance recipients and parolees, to name a few.

The program prepares students who, upon graduation, might become employed in public and private human service settings such as state vocational rehabilitation agencies, federally sponsored human service agencies, county agencies, social welfare agencies, poverty programs, prisons, evaluation centers, and health-related associations, as well as private agencies such as transitional workshops, rehabilitation centers, hospitals, speech and hearing centers, work activity centers (adult development centers) and others.

Emphasis is placed on actual supervised field experiences in a variety of rehabilitation related agencies (30 credits), in addition to giving the students knowledge in medical and psychological aspects of disability, the world of work or occupational information and community resources in rehabilitation.

Degrees Offered

Bachelor of Arts in Rehabilitation
Master of Arts in Rehabilitation—See Graduate Bulletin

Certificate Program

The Rehabilitation Certificate is a 45 credit program that is offered late afternoons and evenings and has the following components: 10 credits of field experience; 15 credits of foundation courses (RHB 100, RHB 201, RHB 301); 20 credits to be selected by the student and the adviser. The Rehabilitation Certificate program is open to all persons, with or without a degree, who meet the University's entrance requirements. Certificate credits are applicable toward a B.A. degree.

General Program Requirements

Students in rehabilitation must satisfy the core curriculum requirements of the University as indicated on page 18 of this bulletin plus additional credits in social science as outlined below.

Degree Requirements

Bachelor of Arts—65 credits in rehabilitation including Rhb 100, 201 (or Psy 380), 203 (or Psy 427), 210, 301, 305, 310, 400, 405, 410; 15 credits in psychology (Psy 100, 201, 315), Soc 101, and 5 credits of Social Science or Rehabilitation elective.

Bachelor of Arts

Freshman year

English 100 and core option	10 credits
History core option	10 credits
Philosophy 110	5 credits
Psychology 100	5 credits
Rehabilitation 100	5 credits
Sociology 101	5 credits
Social Science or Rehabilitation elective	5 credits

Sophomore year

Biology 200, 210, or 270, 271	10 credits
Philosophy 220	5 credits
Psychology 201	5 credits
Rehabilitation 201, 203, 210, 301	20 credits
Theology core option	5 credits

Junior year

Philosophy core option	5 credits
Psychology 315	5 credits
Rehabilitation 305, 310, 400	15 credits
Theology core option	5 credits
Elective	15 credits

Senior year

Rehabilitation 405	5 credits
Rehabilitation 410	20 credits
Electives	20 credits
Total	180 credits

Rehabilitation Courses

Rhb 100 Introduction to Rehabilitation **5 credits**
Principles of vocational rehabilitation, the historical background, various community rehabilitation resources, the rehabilitation process, and the role and functions of the rehabilitation professional within this process.

Rhb 201 Interviewing and Interpersonal Skills **5 credits**
Using group and interpersonal communication techniques, the course emphasizes the interaction dynamics between the rehabilitation professional and the disabled client.

Rhb 203 Tests and Measurement in Rehabilitation **5 credits**
Analyzes various methods of testing and evaluating disabled people and how the methods relate to the rehabilitation process.

Rhb 210 Field Experience in Rehabilitation **5 credits**
Actual experience in an agency or institutional setting within a rehabilitation framework. Coordinating seminars are an integral part of each field experience course. Prerequisite: Rhb 100. Mandatory CR/NC.

Rhb 291 Special Topics **1-5 credits**
Rhb 292 Special Topics **1-5 credits**
Rhb 293 Special Topics **1-5 credits**

Rhb 301 Environmental Impact of Disability **5 credits**
The impact of mental, physical, and social disabilities as related to the individual, social environment, the culture and its values, economic situations and vocational opportunities.

Rhb 305 Medical Aspects of Disability **5 credits**
Study of medical terminology and various disabling diseases and conditions for a basic understanding of general medical and specialist examinations; how disabling conditions affect a client's vocational life.

Rhb 310 Field Experience in Rehabilitation **5 credits**
See course description for Rhb 210. Mandatory CR/NC.

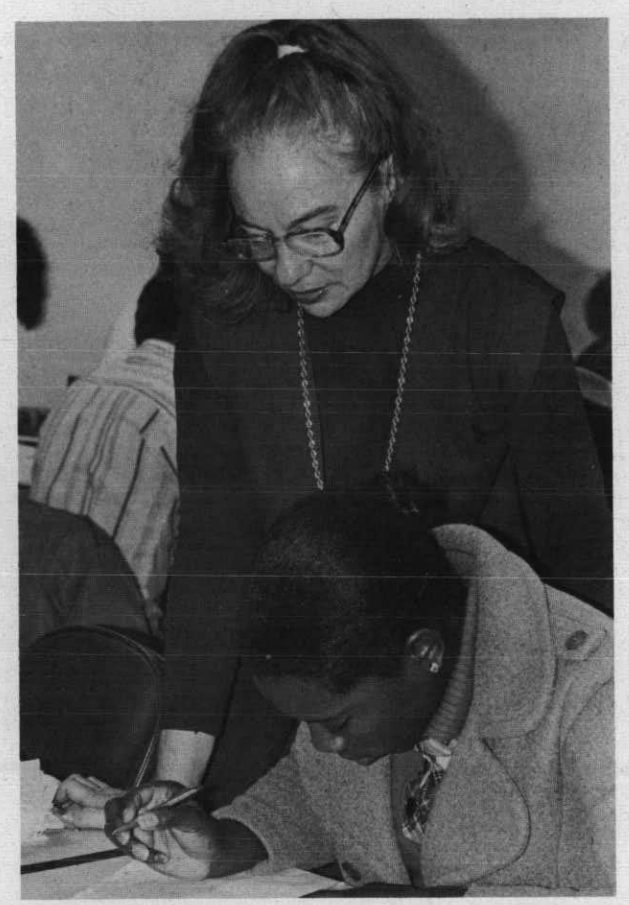
Rhb 391 Special Topics **1-5 credits**
Rhb 392 Special Topics **1-5 credits**
Rhb 393 Special Topics **1-5 credits**
By arrangement with the approval of department chairman.

Rhb 400 Rehabilitation Resources **5 credits**
Rehabilitation community organization and methods of determining, evaluating and analyzing rehabilitation resources.

Rhb 405 Job Placement and Development **5 credits**
Occupational information as applied to job characteristics, job development, job seeking skills, vocational theories and practical experience.

Rhb 410 Field Experience in Rehabilitation **5-15 credits**
See course description for Rhb 210. Mandatory CR/NC.

Rhb 497 Independent Study **1-5 credits**
Rhb 498 Independent Study **1-5 credits**
Individualized studies by arrangement with the approval of department chairman.



Degree Offered

Bachelor of Arts

General Program Requirements

Students in sociology must satisfy the core curriculum requirements of the University as given on page 18 of this bulletin. In addition, 10 credits in a modern language and 15 credits in fine arts are required.

Departmental Requirements

Bachelor of Arts — 55 credits are required for a major in sociology of which 25 credits are in basic courses, including Sc 101, 200, 201, 380 and 381; and 30 credits are in the upper division courses of one of the following three programs: Preprofessional program for sociologists—30 credits. Sc 497 is required. Students in this program are not permitted to take Sc 300, 376 or 377.

Preprofessional program for social workers — 30 credits. Sc 300, 376 and 377 are required. The remaining credits may be selected from any upper division sociology courses. Sc 260 and 262 are recommended.

Liberal sociology major — 30 credits. The student may take any upper division sociology course with the approval of his adviser.

Undergraduate Minor — 30 credits which will include Sc 101, 380 and 20 credits of upper division sociology courses.

Sociology

James P. Goodwin, SJ, M.A., Chairman

Objectives

Sociology has the dual capacity of satisfying the need of students for a humane and liberalizing discipline and of providing a sound basis for careers either in the science of sociology or in social research or in the social services. Courses are designed to provide a systematic inquiry into the complex structures of modern society and their many functions. They also investigate the interactions between persons, their groups and culture.

Students may choose sociology for various purposes: Some are interested in making a career of teaching sociology or doing sociological research; others study sociology in preparation for graduate study and a career in social work; still others seek in sociology a broader and deeper understanding of man and his works. With a view to these interests, different combinations of courses are recommended to students. In a separate brochure, combinations of courses are suggested for those interested in the sociology of family relations, in the sociology of deviant behavior, in urban sociology, and in methods of sociological research. Common to all of these are required courses intended to communicate to the student a knowledge of the conceptual tools of analysis and the methods of sociological research.

Bachelor of Arts

Freshman year

English 100 and core option	10 credits
History core options	10 credits
Psychology 100	5 credits
Sociology 101, 201	10 credits
Electives	10 credits

Sophomore year

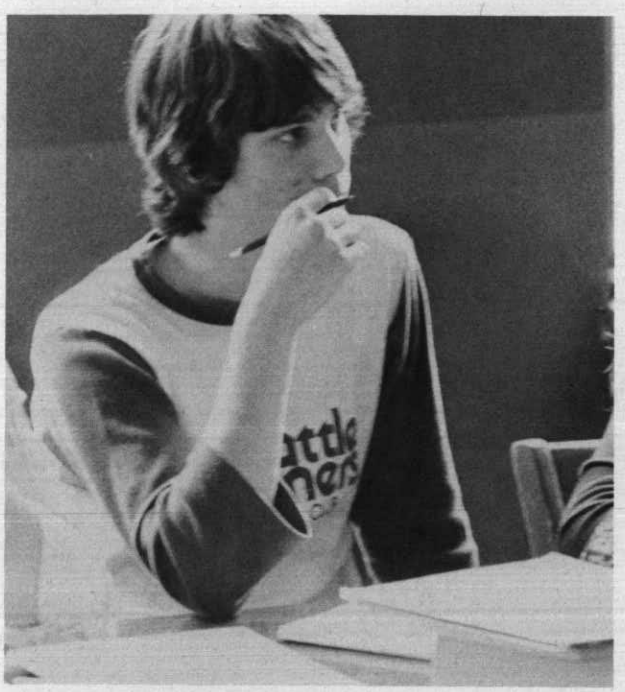
Philosophy 110, 220	10 credits
Philosophy core option	5 credits
Political Science, Psychology or Economics core option	5 credits
Sociology 200, 380, 381	15 credits
Theology core options	10 credits
Elective	5 credits

Junior year

Mathematics/Science core options	10 credits
Modern Language 105, 106	10 credits
Philosophy	5 credits
Sociology electives	15 credits
Electives	5 credits

Senior year

Fine Arts 101, 102, 103	15 credits
Sociology electives	15 credits
Electives	15 credits
Total	180 credits



Sociology Courses

Sc 101 **Fundamentals of Sociology** **5 credits**
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.

Sc 200 **Perspectives in Social Psychology** **5 credits**
Consideration of theories and methods in contemporary explanations of the behavior of individuals in social contexts and social situations. Prerequisites: Sc 101 and Psy 100 recommended. Exceptions with permission of Professor.

Sc 201 **Social Statistics** **5 credits**
(Psy 201) Review of basic statistical principles and processes in social science research.

Sc 256 **Criminology** **5 credits**
Theoretical overview of the conceptualizations of the causes of criminal behavior; sociological analysis of criminal interactions, criminal systems and their functions.

Sc 257 **Juvenile Delinquency** **5 credits**
Analysis of the offenses of juveniles as distinct from those of adult offenders, and sociological explanations of these behaviors within contemporary conceptual models.

Sc 260 **Sociology of the Family** **5 credits**
The structure and functions of the family as a social system; the use of sociological perspectives to interpret the position of the American family in an era of social change.

Sc 262 **Socialization** **5 credits**
Sociological analysis of the process by which one is inducted into socio-cultural systems, and a review of the effectiveness of the process in American society. Prerequisite: Upper division standing or permission.

Sc 266 **Interracial and Interethnic Relations** **5 credits**
Analysis of the factors involved in intergroup relations. Prerequisite: Upper division standing or permission.

Sc 280 **Urban Community** **5 credits**
Urban community structures and institutions; historic city types; the process of urbanization; world cities; aspects of American urban communities. Prerequisite: Upper division standing or permission.

Sc 291 **Special Topics in Sociology** **1-5 credits**
Sc 292 **Special Topics in Sociology** **1-5 credits**
Sc 293 **Special Topics in Sociology** **1-5 credits**

Sc 300 **Introduction to Social Work** **5 credits**
(Cs 300) Historical development, structure and function of social welfare services and institutions with emphasis upon the philosophy and methods utilized by professional social work in meeting human needs.

Sc 302 **The Black People's Social Movement** **5 credits**
Theory of social movements applied to the Black People's struggle for equality in America.

Sc 340 **Advanced Social Psychology** **5 credits**
Analysis employing specific socio-psychological conceptual models; tests of propositions derived from these models; Prerequisite: Upper division standing or permission of instructor.

Sc 350 **Small Groups** **5 credits**
Sociological models and methods for analyzing small, interpersonal systems of interaction, their dynamics and structures, as well as their potentials for change and growth.

Sc 351 **Police and the Community** **5 credits**
(CJP 350) Roles of police in the community; relationships with with individuals, groups and community organizations. Analysis of ethnic, cultural and economic differences as factors in the administration of justice.

Sc 352 **Society and Justice** **5 credits**
(CJP 360) The criminal justice process from arrest through release; the relationships of the police, the prosecutor, the defense, the courts, the prisons and corrections, as each integrates into a system.

Sc 360 **Complex Organizations** **5 credits**
Sociological analysis of large, complex social organizations, the kinds of modern organizations and the relationships among organizations and to the larger social environment both historically and currently.

Sc 362 **Deviant Behavior** **5 credits**
(CJP 362) 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.

Sc 363 **Population** **5 credits**
Analysis of population trends, problems and policies. Explanations of relationships demonstrated to exist between demographic and sociological variables. Prerequisite: Upper division standing.

Sc 365 (CJP 365) **Probation and Parole** **5 credits**
Examination of current trends and issues in probation and parole supervision, personnel qualifications, legal aspects, and research on results and prediction of outcome.

Sc 366 (CJP 366) **Corrections** **5 credits**
Analysis of post-arrest treatment methods applied to offenders, the correctional institution and community-based corrections. Prerequisite: Upper division standing or permission.

Sc 376 (CS 376) **Factors of Interviewing** **5 credits**
The interview as one of the major methods of helping people; study of the knowledge and skills needed for proficient interviewing to provide a basis for future development. Prerequisite: Sc 300 or permission.

Sc 377 (Cs 377) **Supervised Field Experience** **5 credits**
Direct observation and academic study in a selected community agency with stress placed upon the agency's clientele, its services and its function in the community. Prerequisite: Sc 300 and 376. Mandatory CR/NC.

Sc 380 **Methods of Sociological Research I** **5 credits**

Sc 381 **Methods of Sociological Research II** **5 credits**
I. Logical structure and procedures of data gathering and analysis. II. Practicum: student research project. Prerequisites: Sc 101 and 201 for 380; 380 for 381.

Sc 400 **Sociology of Religion** **5 credits**
Investigation of the religious institutions in society in terms of their structure, function and change. Prerequisite: Upper division standing or permission.

Sc 410 **Social Stratification** **5 credits**
Analysis of the ranking of persons and families in organizations and systems of social strata and its consequences.

Sc 412 (CJP 410) **Juvenile Justice Systems** **3 credits**
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.

Sc 415 (CJP 415) **Victimology** **5 credits**
A survey of the victim-offender relationship; including the origin and scope of victimology, a victim and his society, the victim and the administration of justice, and the social reaction to victimization.

Sc 420 **Mass Communication** **5 credits**
Consideration of message-formation and message-dissemination on the societal level with reference to social structures, social power and social change. Prerequisite: Upper division standing or permission

Sc 430 **Social Change** **5 credits**
Social change as embodied in social movements, reforms, revolutions and less deliberate types of social and cultural change.

Sc 457 **Institute or Workshop** **5 credits**
Special topics of current relevance in the nation or local community treated from a sociological perspective as a community service. Prerequisite: Upper division standing.

Sc 480 **Sociology of Work** **5 credits**
Study of the industrial enterprise as a social system and the social psychology of human relations in a work setting.

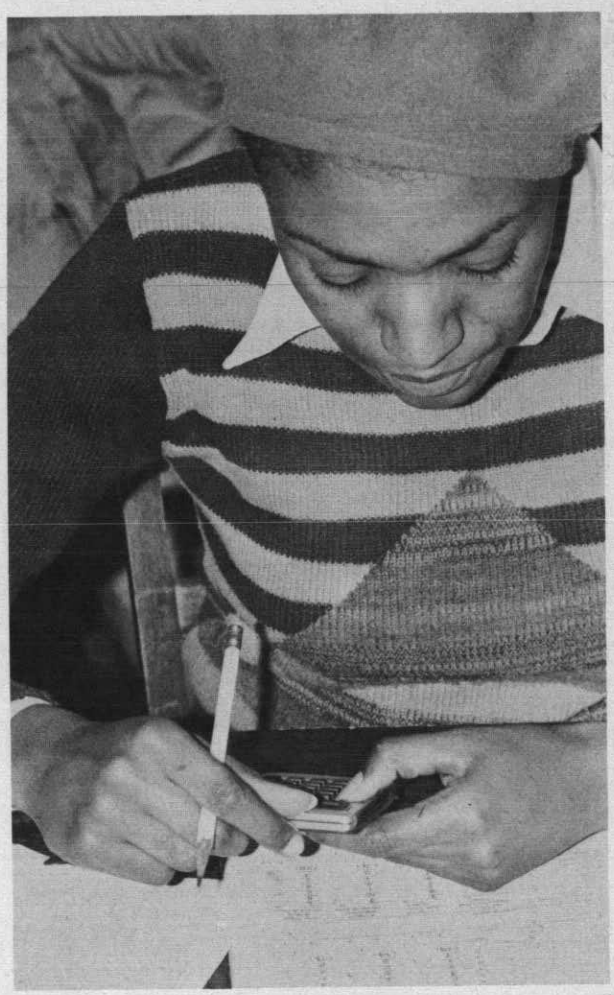
Sc 491 **Special Topics in Sociology** **1-5 credits**
Sc 492 **Special Topics in Sociology** **1-5 credits**
Sc 493 **Special Topics in Sociology** **1-5 credits**

Sc 494 **History of Sociological Thought** **5 credits**
Historical survey and evaluation of selected leading thinkers who have contributed to the development of sociology as an independent discipline. Prerequisite: Upper division standing or permission of instructor.

Sc 497 **Individual Research** **3-5 credits**
Design and execution of a research project supervised by a faculty member.

Sc 498 **Directed Reading in Sociology I** **1-5 credits**

Sc 499 **Directed Reading in Sociology II** **1-5 credits**
Sociological reading at an advanced undergraduate level in a tutorial relationship with one professor. Prerequisite: Upper division standing.



Speech

Margaret A. Penne, M.A., Adviser

Objectives

The Speech program offers background and practice in the skills of oral delivery. To accomplish this purpose, the program provides in disciplined fashion opportunities for creative composition and vocal interpretation.

Program

Speech courses are a valuable adjunct to other degree programs in the general fields of the humanities and social sciences. Students interested in speech should include speech courses among their electives.

Speech Courses

Sph 100 Fundamentals in Speech — **5 credits**
Theory and practice of basic speech communication skills. Introduction to interpersonal communication, public communication and aesthetic communication.

Sph 200 Public Speaking — **5 credits**
Theory and practice in organizing and delivering a speech.

Sph 201 Interpersonal Speech Communication — **5 credits**
Theory and practice of skills in interpersonal situations. Emphasizes self-awareness, sensitivity to others, and a humanistic approach to communication.

Sph 202 Oral Interpretation — **5 credits**
Analysis and interpretation of literature. Practice in interpreting prose, poetry and drama.

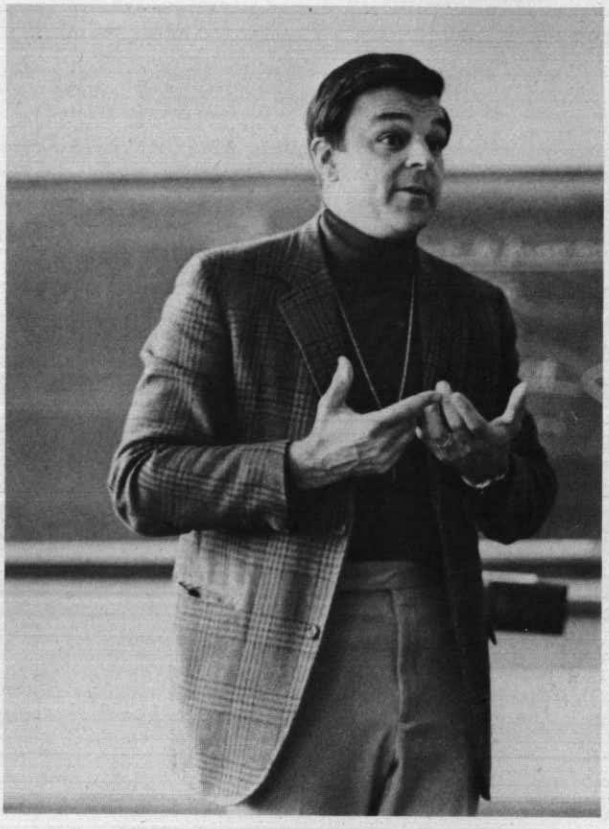
Sph 204 Persuasion and Argumentation — **5 credits**
Principles involved in effective argumentation and persuasion, practice in forms of debate.

Sph 291 Special Topics — **1-5 credits**
Sph 292 Special Topics — **1-5 credits**
Sph 293 Special Topics — **1-5 credits**
Prerequisite: Permission of instructor.

Sph 310 The American Speaker — **5 credits**
Study and criticism of American public speaking. Practice in contemporary methods of public speaking. Prerequisite: Sph 100 or Sph 200 or permission of instructor.

Sph 320 Speech for the Classroom Teacher — **5 credits**
Emphasis on the teacher as a communicator and leader in learning communication skills. Discussion, story telling, oral interpretation and drama.

Sph 491 Special Topics — **2-5 credits**
Prerequisite: Permission of instructor.



Theology and Religious Studies

Richard H. Ahler, SJ, S.T.D., Chairman

Objectives

Theology and Religious Studies has the same fundamental purpose as the other disciplines in the University: intellectual training, the formation of a mature intellect. Within this general framework the department serves a two-fold purpose. It provides the theology and religious studies sequence of the core curriculum and it offers a program of courses leading to a Bachelor of Arts degree in theology and religious studies.

The department also offers post baccalaureate programs designed for priests, men and women religious and laity who are interested in broadening their understanding of and participation in the mission of the Church, to help them achieve a high level of competence in the Church's various evolving ministries.

Degrees Offered

Bachelor of Arts
Master of Religious Education (SUMORE)—See Graduate Bulletin
Master of Pastoral Ministry—See Graduate Bulletin
Certificate in Pastoral Ministry (CORPUS)—See Graduate Bulletin

General Program Requirements

Students in theology and religious studies must satisfy core curriculum requirements of the University as given on page 18 of this bulletin. In addition to the core curriculum, students in theology and religious studies must take an added five credits in social science and five credits in philosophy.

Departmental Requirements

Bachelor of Arts—50 credits in theology and religious studies beyond the 10 credits required in the core. The student majoring in theology and religous studies is required to take the following courses: RS 200 and any two other Scripture courses; RS 320 and any two courses from among the following: RS 330, 335, 340, 344, 350, 420; RS 355, 357, 358 sequence; any three 400 numbered courses.

Undergraduate minor—30 credits in theology and religious studies which must include RS 200 and one other Scripture course; RS 320 and any other three 300 or 400 courses.

Bachelor of Arts

Freshman year

English 100 and core option	10 credits
History core option	10 credits
Philosophy 110, 220	10 credits
Social Science core options	10 credits
Theology and Religious Studies 200	5 credits

Sophomore year

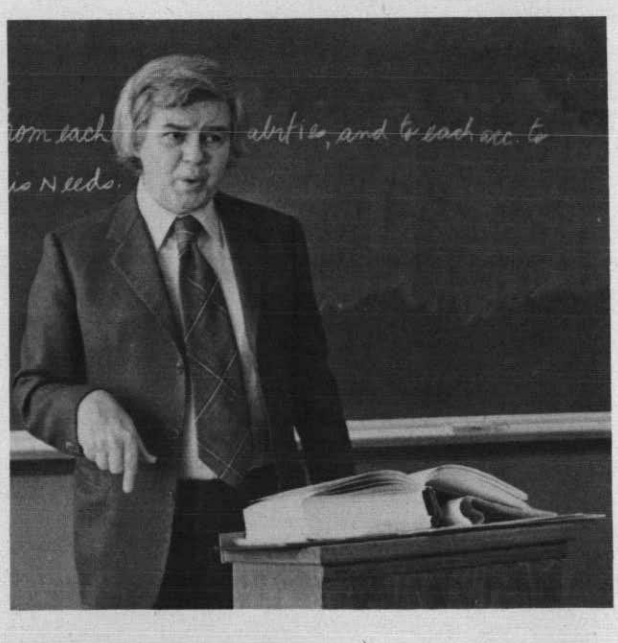
Philosophy core option	5 credits
Social Science elective	5 credits
Theology and Religious Studies	15 credits
Electives	20 credits

Junior year

Mathematics/Science core options	10 credits
Philosophy elective	5 credits
Theology and Religious Studies 355, 357, 358	15 credits
Electives	15 credits

Senior year

Theology and religious studies electives	25 credits
Electives	20 credits
Total	180 credits



Theology Courses

RS 200 **Judaeo-Christian Origins** **5 credits**
Survey of key books of the Bible and/or themes of the Scriptural tradition and its development. For students with a minimal previous background in biblical studies.

RS 210 **Synoptic Gospels** **5 credits**
Investigation of the Gospels of Matthew, Mark and Luke.

RS 215 **Johannine Theology** **5 credits**
Study of John's theological reflections on the Christ-event, given witness in his gospel, epistles and the Apocalypse.

RS 220 **Pauline Theology** **5 credits**
Study of Paul's theological development analyzed in his epistles.

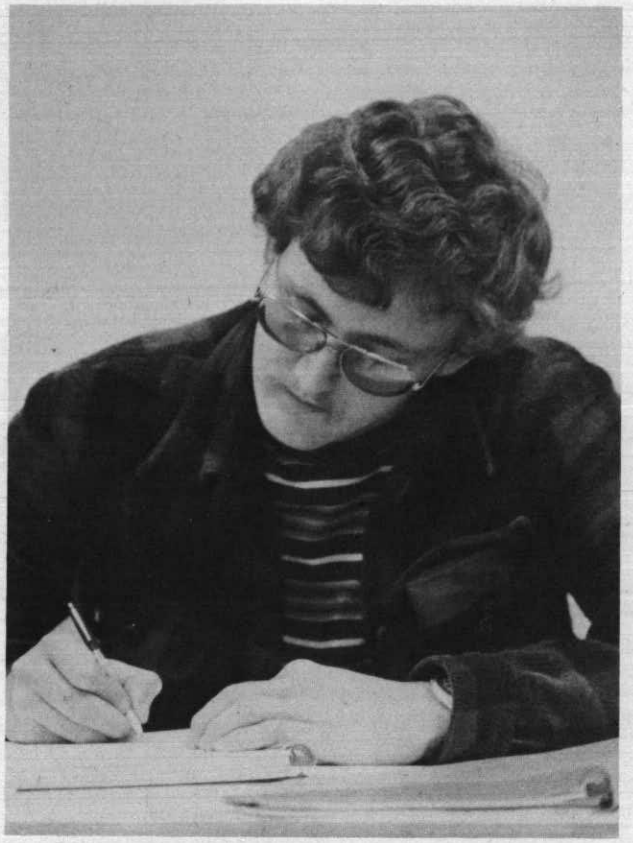
RS 240 **Prophetic and Wisdom Literature of the Old Testament** **5 credits**
Study of prophecy in the Ancient Near East and its role in the development of Judaism. Rise of wisdom literature in the Ancient Near East, its expression in Judaism and its role in the Judaic community.

RS 289 **Comparative Religion** **5 credits**
Investigation and contrast of the major non-Christian religions: Buddhism, Hinduism, Confucianism, Shinto and Islam.

RS 290 **Religious Experience East and West** **5 credits**
Anthropological, sociological and psychological perspectives on the phenomenon of religious experience in human history as these reveal the nature and meaning of this experience within human existence.

RS 291 **Special Topics** **3-5 credits**
RS 292 **Special Topics** **3-5 credits**
RS 293 **Special Topics** **3-5 credits**

RS 320 **Fundamental Themes in Theology** **5 credits**
Speculative investigation into the reasonableness of revealed truths as accepted in Faith; the Incarnation, Redemption and their effects in man.



RS 330 The Problem of God **5 credits**
Reality of God for contemporary man; atheism; man's sense of God's presence and His absence, experience of God in the Bible and the theological reflection on who the God-who-is-with-us is.

RS 335 Christ and Modern Man **5 credits**
Biblical foundation for the Christian affirmation of the human and divine in Jesus, and a further investigation and analysis of the Christian community's deepening understanding of this mystery.

RS 340 Theology of Man **5 credits**
Study of the pre-biblical and biblical notions of man; the development of early Christian and scholastic theology of man as redeemed and graced; contemporary man as related to this background.

RS 344 The Church as Community **5 credits**
Central biblical themes bearing on the nature and structure of the Christian Community; understanding of that Community in its dynamic, historical process of growth; authority and freedom, tradition and change.

RS 347 Black Religious Experience **5 credits**
Black religion is a theology of freedom, of proclamation, of power of hope. Each must be developed to show its convergence with religion in general, yet its divergence into Black Religion in particular.

RS 350 Perspective of Christian Hope **5 credits**
The future of man and the cosmos based upon the Christian's faith in the Resurrection and Glorification of Jesus Christ; a theology of hope that confronts modern secularism.

RS 355 Early Christian Theology **5 credits**
Theological, historical and literary analysis of writings of some of the leading early and later Fathers of the Church, e.g., Justin, Irenaeus, Tertullian, Origen, Augustine. Prerequisite: RS 200.

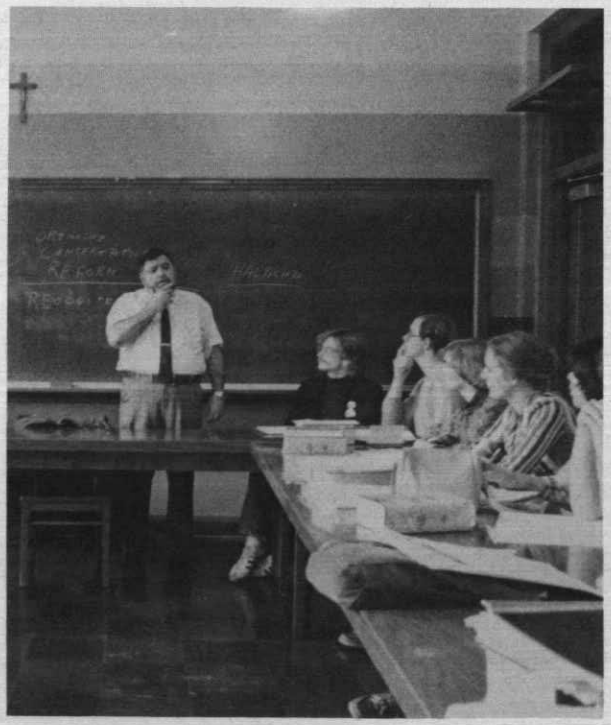
RS 357 Scholastic Theology **5 credits**
Seminar: the origin and main lines of scholastic theology, its spirit and aim formulated by St. Anselm, Abelard, St. Bernard, Alexander of Hales, St. Albert, St. Bonaventure, Duns Scotus, William of Occam, St. Thomas Aquinas. Prerequisite: RS 355.

RS 358 Reformation Theology **5 credits**
The theological dispute of the Reformation on justification by faith alone; controversies among Catholics, Lutherans, Calvinists and Jansenists; the Enlightenment and Vatican Council I. Prerequisite: RS 357.

RS 420 Christian Sacraments **5 credits**
Dynamism of the sacraments of Christian life; the doctrinal, moral and liturgical aspects of the sacraments in the perspective of public worship and the Christian community.

RS 433 Theology of Human Sexuality and of Marriage **5 credits**
Meaning of the human love experience, its expression in human sexuality, the conditions within which this value is experienced; the relationship of human sexuality and marriage; marriage as the sign of the unity among men with God.

RS 450 Theology of Liberation **5 credits**
Scripture passages in describing Yahweh or Jesus as liberating men; Christ as the end of all creation; Christ viewed as the terminus of all cosmic and human evolutionary development. Liberation according to contemporary theologies of socio-economic and political liberation.



RS 475 Contemporary Christian Morality **5 credits**
Principles of a Christian ethic; contemporary approaches to decision making in matters of morality; problems encountered by the Christian conscience in today's world including issues of life and death.

RS 476 Social Theology **5 credits**
Evaluation of the growing socialization of human life and a study of major social issues in the 20th Century in the light of contemporary Catholic and Protestant social statements.

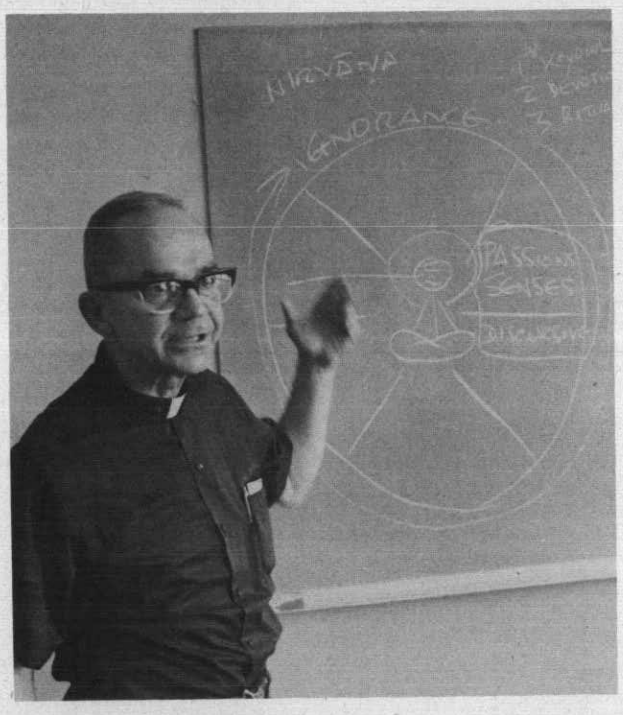
RS 477 Christian Response to Some Socio-Legal Problems **5 credits**
Traditional Christian reverence for life. Contemporary moral and legal problems such as eugenic engineering, artificial insemination, genetic surgery, compulsory sterilization, abortion and euthanasia.

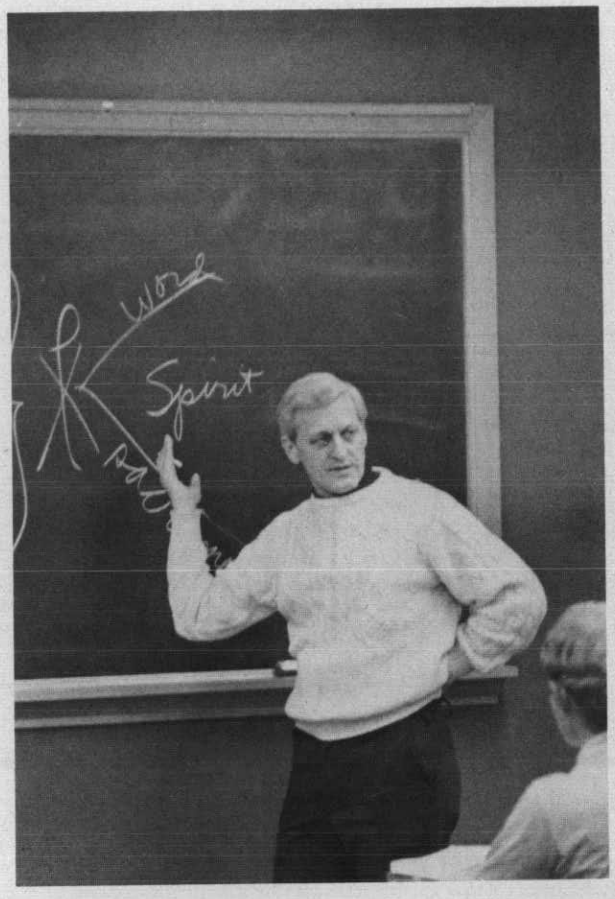
RS 478 Survey of Jewish History **5 credits**
Survey of Jewish history up to the contemporary period with special emphasis on the Second Commonwealth and Talmudic Period.

RS 479 Survey of Jewish Theology **5 credits**
Study of monotheism versus paganism, sacrifice, reward and punishment, sabbath and holidays, dietary laws, morals and ethics, traced from the biblical period to the present.

RS 481 Psalms and the Community of Israel **5 credits**
Analysis and dating of key Psalms according to literary types; influence of Israelite cultic life upon the composition of the psalms; Psalms as a reflection of the deepening religious life of the Old Testament.

RS 485 Theological Horizons of Modern Literature **5 credits**
Study of selected literary works in terms of their theological implications and religious insights.





RS 486 Catechesis: Vision and Tactics **3-5 credits**
Background and development of rationales and methodologies in religious education related to Vatican II; implication of Council statements and application of pedagogical insights from related social sciences to the formation of a knowledgeable faith.

RS 487 Modern Protestant Theology **5 credits**
Theological position, history and trends of the major Protestant denominations; principal leaders of modern Protestant thought and their tenets; Bultmanns, Tillich, Niebuhr.

RS 488 Methodology **5 credits**
Introduction to the history, methodology and sources of research in theology; conditions for theological development; continuing Christian response in its magisterial and credal functions.

RS 490 Special Topics—Core **3-5 credits**
Under this number, there will be courses that are not otherwise available in the core curriculum. Ordinarily the prerequisite will be RS 200 or approval of chairman.

RS 491 Special Topics **3-5 credits**
RS 492 Special Topics **3-5 credits**
RS 493 Special Topics **3-5 credits**
RS 494 Special Topics **3-5 credits**

RS 496 Directed Readings in Theology **2-5 credits**
RS 497 Individual Research **2-5 credits**
RS 498 Independent Study **2-5 credits**

Religious Studies Center

Religious Studies Center designates an agency established under the cooperative auspices of Seattle University and the Archdiocesan Office of Religious Education, committed to planning and providing programs in continuing religious formation for adults, professional and lay. Religious Studies Center courses are a continuing education service; credit for these courses are not applicable toward meeting the undergraduate elective, core, or other baccalaureate degree requirements.

Religious Studies Center Courses

RS 201* Old Testament: Meaning and Values for Today **2 CEU**
A study of the Old Testament, with a view to understanding its meaning and message for persons of faith in our time.

RS 202* New Testament: Meaning and Values for Today **2 CEU**
A study of the New Testament, with a view to understanding its meaning and message for persons of faith in our time.

RS 203* The Scriptures: Special Topics (Old Testament) **2-3 CEU**

RS 204* The Scriptures: Special Topics (New Testament) **2-3 CEU**

RS 205* Special Topics **2-3 CEU**
RS 206* Special Topics **2-3 CEU**
RS 207* Special Topics **2-3 CEU**

RS 300* The Faith Experience Today **2 CEU**
The event of divine revelation and signs by which we recognize God's presence; personal faith response, grounded in reflection on human experience.

RS 301* Theology of Person: Man and God in Contemporary Thought **2 CEU**
Study of the person as interpreted by science, literature, and theology; concepts of God as these arise from experience and self understanding.

RS 303* The Contemporary Jesus: Person or Movement? **2 CEU**
The person of Jesus in his historical, redemptive role; how Jesus relates to us today, individually and within the community; the search for Jesus as a dimension of the search for meaning.

RS 304* Contemporary Morality: Freedom and the Christian Conscience **2 CEU**
Basic principles of the Christian moral life framed in the context of lived morality today; Christian freedom as it informs the process of ethical decision-making and conscience formation.

RS 305* Life and Death: Moral Issues and Alternatives **2 CEU**
Study of the complex issues related to right to life; human values that are normative in addressing problems raised by medical technology today.

RS 306* Social Justice: Moral Issues and Alternatives **2 CEU**
Christian response to questions posed by conditions of society today; interrelationship between ethical perspectives and social structure as shown in the American experience.

RS 307* The Church and Christian Mission **2 CEU**
Socio-theological study of the Church, as sign and sacrament of Christ's saving presence among men; priestly and prophetic nature exercised through continuing dialog with all sectors of the society.

RS 308* Sacraments and Religious Experience **2 CEU**
The meaning and role of Christian sacraments in worship; how sacraments in their psychological and social dimensions create and express the community.

RS 309* Prayer and Worship: Person and Community Before God **2 CEU**
The spirit, forms and function of prayer in Judaeo-Christian experience; qualities of prayer as it facilitates and enriches growth toward Christian fulfillment.

RS 400* Theology of Liberation: Christian Hope **2 CEU**
Christian hope as the power of the future that assists in understanding sources of social and political problems, and directs us in creating alternatives for liberating persons from forms of injustice.

RS 401* Theology of Liberation: Faith and Secularity **2 CEU**
The phenomenon of secularization in our time; the historical factors that account for it, and present conditions that favor it: Implications of secularization for Christian living.

RS 402* Theology of Liberation: Christian Praxis **2 CEU**
Theology as it not only interprets the world, but mobilizes change for the responsibility of Christians to be agents of social change; critique of means through which humanizing social change is effected.

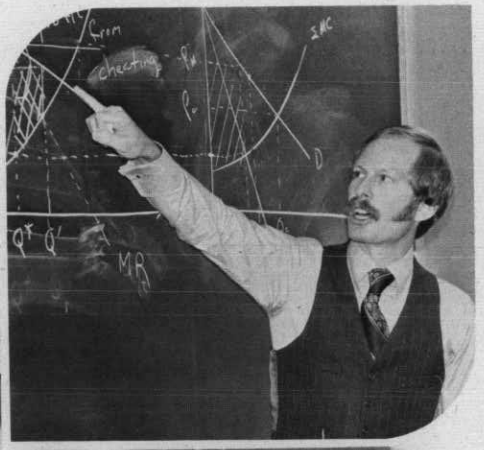
RS 404* Catechetical Ministry I **2 CEU**
RS 405* Catechetical Ministry II **2 CEU**
RS 406* Catechetical Ministry III **2 CEU**
A three course sequence for the development and evaluation of a competency approach for the preparation of catechists. Prerequisite: 404 for 405, 405 for 406.

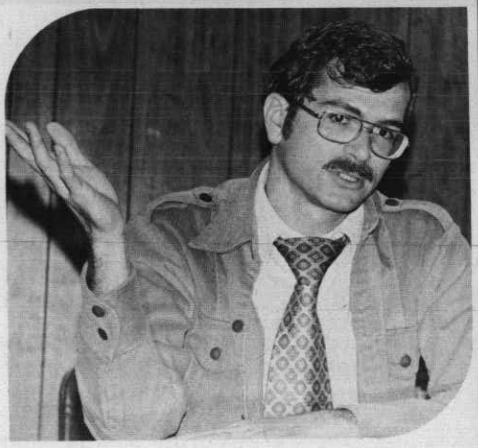
RS 407* Christianity and Culture **2 CEU**
Christian view of culture today: role of church in both encouraging and challenging American value assumptions.

RS 408* Religion and Technology **2 CEU**
The effects of technological society upon the environment, the production and consumption of goods; resources within the Judaeo-Christian tradition relevant to the task of humanizing technology.

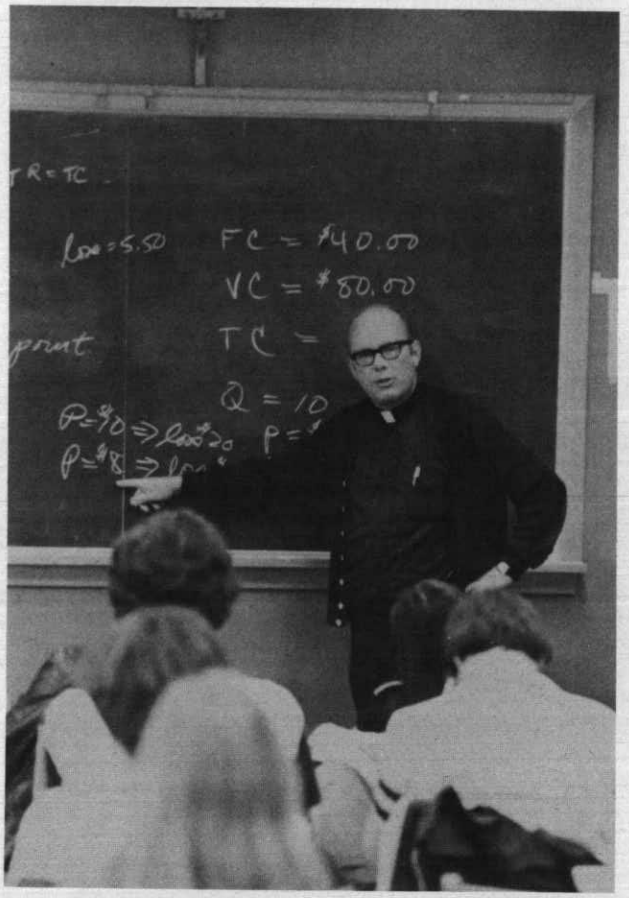
RS 409* Environmental Ethics **2 CEU**
Ethical dimensions of the environmental crises, based on interdisciplinary sources of understanding: e.g., value assumptions and the need to raise new value questions.

RS 410* Special Topics **2-3 CEU**
RS 411* Special Topics **2-3 CEU**
RS 412* Special Topics **2-3 CEU**





ALBERS SCHOOL OF BUSINESS



Albers School of Business

John D. Eshelman, Ph.D., Dean
J.W. McLelland, M.A., Associate Dean

Department Chairpersons

Accounting and Legal Environment: David Tinius, Ph.D., CPA, Chairperson
Administration: C. Patrick Fleenor, Ph.D., Chairperson
Economics: Hildegard Hendrickson, Ph.D., Chairperson

Objectives

Collegiate education for business should prepare students for business careers, not simply for job-finding. A broad, liberal education, comparable to university studies in other professional fields, will not replace practical business experience, but will provide a sound base for development of managerial talents.

The programs of the Albers School of Business 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 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 of Bachelor of Arts in Business Administration

American Assembly of Collegiate Schools of Business.

Organization

The Albers School of Business has two principal divisions, undergraduate and graduate studies. Undergraduate majors are offered in five business fields: accounting, finance, general business, management and marketing. In addition, the School contains the Economics department which offers a bachelor's degree program and an undergraduate minor.

Admission Requirements

Admission to undergraduate programs is granted to applicants who have specified an interest in business or economics and who meet the University's entrance requirements described in the admissions section of this bulletin.

Students seeking entrance to graduate studies in business should communicate with the Albers School of Business Graduate Admissions officer.

Degrees Offered

Bachelor of Arts in Business Administration
Bachelor of Arts in Economics
Master of Business Administration (evening classes only)—See Graduate Bulletin

Curriculum

The program of required study for the bachelor's degree in business has three principal components: the arts and sciences, the business core and an area of specialization. All students in the baccalaureate degree program fulfill requirements in English, mathematics, philosophy, a natural science, social sciences and theology and religious studies. The business core includes courses in accounting, administrative processes, economics, finance, information systems, legal environment, management, marketing and statistics. Specialization in one of the five major fields is required.

General Program Requirements

A minimum of 180 credits is required for bachelors' degrees in business or economics. See the degree requirements for specific course requirements.

Degree Requirements

Bachelor of Arts in Business Administration — Students seeking this degree complete a program with the following components:

1. Requirements in arts and sciences....75 credits

   English 100 and one of the following English courses: 132, 133, 134, 220, 230, 240 or 383; Mathematics 118, 130 and 213 recommended or 214; Philosophy 110, 220 and a five-credit philosophy elective; social sciences, ten credits (Psychology 100 and Sociology 101 recommended); ten credits in theology and religious studies selected from two different areas; five credits in natural science; and ten credits chosen with the direction of an adviser.

2. Business core requirements .....60 credits

   Business 211, 230, 231, 270, 310, 340, 350, 380, 480, 482; Economics 271, 272.

3. Specialization in a major area of concentration .....20 credits

   Accounting, finance, general business, management or marketing.

4. Electives from any undergraduate offerings of the University.....25 credits

Total . . . . 180 credits

Bachelor of Arts in Business Administration

Freshman year

Business 170 or Economics 100..... 5 credits
English 100 and 132 or 133 or 134 or 220 or 230 or 240 or 383 .....10 credits
Mathematics 118, 130 .....10 credits
Natural Science ..... 5 credits
Philosophy 110 ..... 5 credits
Social Sciences (Psychology 100 and Sociology 101 recommended) ..... 10 credits
Elective ..... 5 credits

Sophomore year

Business 211, 230, 231, 270.....20 credits
Economics 271, 272 .....10 credits
Mathematics 213 (recommended) or 214 ... 5 credits
Philosophy 220 ..... 5 credits
Theology and religious studies ..... 5 credits

Junior year

Business 310, 340, 350, 380.....20 credits
Business major (300-499).....10 credits
Theology and religious studies ..... 5 credits
Electives other than business or economics .....10 credits

Senior year

Business 480, 482.....10 credits
Business major (300-499).....10 credits
Philosophy ..... 5 credits
Electives .....20 credits

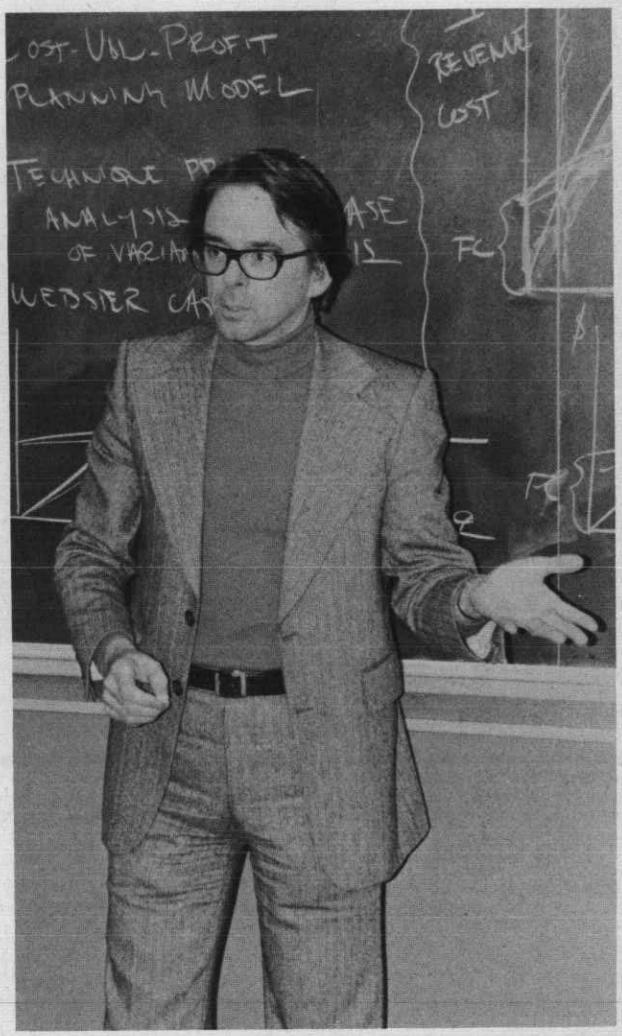
Total . . . . 180 credits

Accounting

Objectives

The work of the accountant is firmly established as an indispensable service in the world of business. Professionally trained accountants serve in many areas of private business and government, such as cost determination, financial accounting, financial planning and auditing. By passing state examinations the accountant may pursue a career as a certified public accountant.

Minimum requirements for the accounting major are: Bus 330, 332, 333 and 431. Students who wish to prepare for the certified public accountant examination are advised to complete Bus 336, 370, 433, 435 and 436.



Finance

Objectives

The finance curriculum is designed to afford an understanding of the financial functions in business and the management of assets for financial institutions and individuals.

Requirements for the finance major are: Bus 341, 343, 441 and Ec 372. Ec 472 and 473 are strongly recommended.

General Business

Objectives

The general business major 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.

General business majors must complete at least 20 credits selected from: Bus 341, 343, 352, 370, 375, 381, 383; Ec 372, 374, 377, 471, 472, 473 and 476.

Management

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.

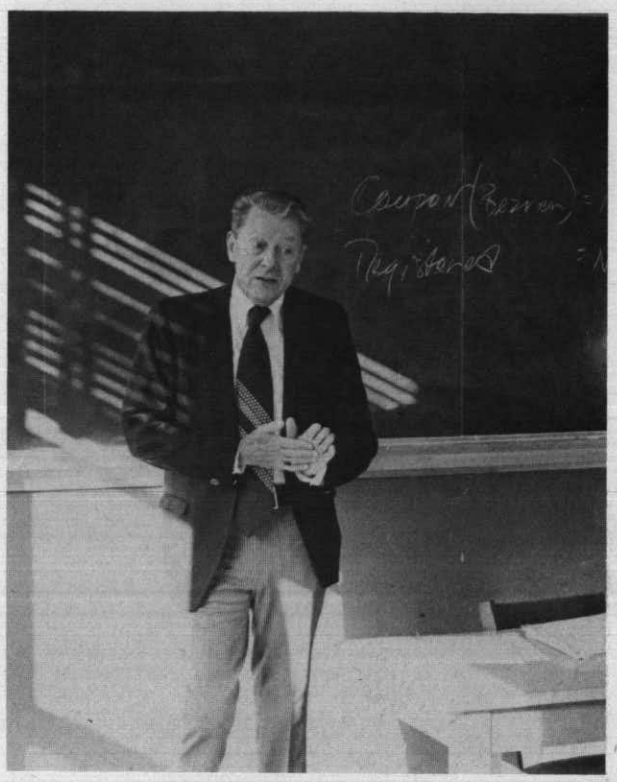
Requirements for the management majors are: Bus 381, 383 and at least 10 credits from Bus 382, 481, 483.

Marketing

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.

The requirements for the marketing major are: Bus 352, 353, 451 and 452. Ec 374, 472 and 473 are strongly recommended.



Business Courses

Bus 170 Economic and Social Environment **5 credits**
Survey of the significance and effect of economic and social environment on business sector; role and responsibilities of business in society; career opportunities; inter-relationships of major functional areas.

Bus 211 Business Statistics **5 credits**
Basic statistics, probability concepts, probability distributions, expectation, sampling, estimation, hypothesis testing, index numbers and introduction to simple linear models. Prerequisite: Mt 130. (fall, winter, spring)

Bus 230 Principles of Accounting I (Financial) **5 credits**
Introduction to financial accounting concepts with emphasis on the development of the student's ability to understand and interpret financial statements of business entities. (fall, winter, spring).

Bus 231 Principles of Accounting II (Managerial) **5 credits**
Introduction to the use of accounting information for decision making in planning and controlling the operation of business organizations. Prerequisite: Bus 230 (fall, winter, spring)

Bus 270 Law & Business **5 credits**
Nature and development of law; structure and functions of the courts; civil and criminal procedure; role of attorneys and an introduction to the law of contracts.

Bus 291 Special Topics **1-5 credits**
Bus 292 Special Topics **1-5 credits**
Bus 293 Special Topics **1-5 credits**

Bus 310 Computer-Based Management Information Systems **5 credits**
Data processing applications. Introduction to information systems. Planning, designing, implementing commercial systems. Development of computer-based management information systems. Prerequisite: Mt 213 or 214.

Bus 330 Cost Accounting **5 credits**
Determination of manufacturing costs in job order, process and standard cost systems; introduction to methods of cost control. Prerequisite: Bus 231.

Bus 332 Intermediate Accounting I **5 credits**
Theory and development of accounting principles; evolution of theory as relates to the current state of accounting for the assets of the entity and the measurement and reporting of periodic income. Prerequisite: Bus 231. (fall, spring)

Bus 333 Intermediate Accounting II **5 credits**
Theory and development of accounting principles; evolution of theory as relates to the current state of accounting for liabilities and owners' equities. Prerequisite: Bus 332. (winter, summer)

Bus 336 Federal Income Tax I **5 credits**
Tax returns of individuals; gross income and deductions; use of a tax service and research in tax problems. Prerequisite: Bus 332.

Bus 340 Business Finance **5 credits**
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, Bus 231. (fall, winter, spring)

Bus 341 Investment and Security Analysis **5 credits**
Principles, policies and practices of investing. Analysis of public and private industries and securities, individual and institutional viewpoints. Prerequisite: Bus 340.

Bus 343 Financial Institutions and Markets **5 credits**
Nature and function of bank and non-bank financial institutions and markets and their relationships and interdependence. Prerequisites: Ec 271, Bus 231.

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

Bus 352 Marketing Communication **5 credits**
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: Bus 350.

Bus 353 Price Practices and Policies **5 credits**
Methods of price determination and administration of price policies by manufacturers, wholesalers and retailers. Legal aspects of pricing under anti-trust laws. Prequisites: Bus 211, 350.

Bus 370 Advanced Law and Business **5 credits**
Commercial law, including contracts, business structures and property relationships; legal aspects of government and business, including credit and environmental legislation. Prerequisite: Bus 270.

Bus 375 Economics of Profit Sharing **5 credits**
Survey of the philosophy, economics and law in the field of profit sharing; analysis of industry profit sharing plans. Prerequisites: Bus 231, Ec 271.

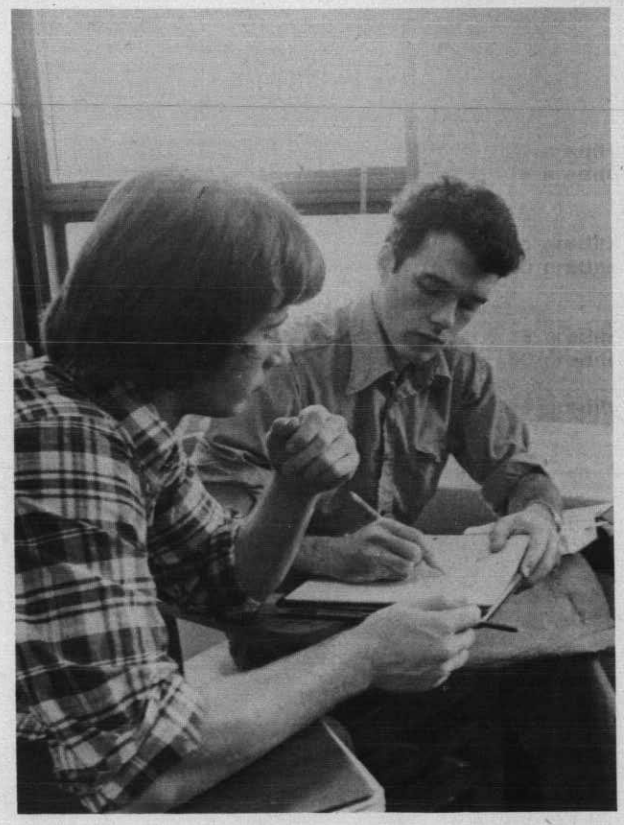
Bus 380 Organization Behavior **5 credits**
Develops understanding of organizational behavior, with focus on basic processes, methods involved in diagnosing human situations. Experiential exercises and analysis of concepts. Prerequisite: junior standing.

Bus 381 Organization Structure **5 credits**
Administrative setting, roles of supervisory personnel as determinates of the scope and techniques of management. Interpersonal relations, communication, leadership, organization structure, individual behavior and motivation. Prerequisite: Bus 380.

Bus 382 History, Theory and Practice of Management **5 credits**
The origins of current management practices are explored. Theories are developed and then applied to solving real cases and incidents. Prerequisite: junior standing.

Bus 383 Personnel Management **5 credits**
Management of human resources to achieve the goals of the firm and its personnel in times of change. Prerequisite: Bus 380.

Bus 431 Advanced Accounting I **5 credits**
Special accounting problems associated with partnerships and business combinations. Particular emphasis on consolidated financial statements and price-level adjusted financial statements. Prerequisite: Bus 333.



Bus 433 Seminar in Accounting Theory **5 credits**
Critical examination of accounting theories; concepts, postulates and principles related to income measurement, assets, liabilities and equities. Prerequisite: Bus 333.

Bus 435 Auditing **5 credits**
Purpose, scope, concepts and methods used in examining and attesting to financial statements. Current issues concerning professionalism, and role of the public accountant. Prerequisite: Bus 333.

Bus 436 Federal Income Tax II **3 credits**
Tax returns of partnerships and corporations; problems related to installment sales, cash basis and accrual basis. Prerequisite: Bus 336.

Bus 441 Case Problems in Finance **5 credits**
Variables relevant to financial problems; skill, techniques and judgment necessary to make financial decisions. Prerequisite: Bus 340.

Bus 451 Marketing Research **5 credits**
Purpose, methods and techniques of marketing research. Prerequisites: Bus 211, 352, 353.

Bus 452 Marketing Management **5 credits**
Case studies of corporate problems, decision-making. Student participation in various roles of marketing. Organization planning, execution and control of marketing programs. Prerequisites: Bus 231 and 451. Seniors only.

Bus 480 Operations Management **5 credits**
Survey of systems analysis techniques for manufacturing and service organizations. Network analysis, scheduling, inventory control, linear programming and heuristics. Prerequisite: Bus 211, Mt 213 or 214.

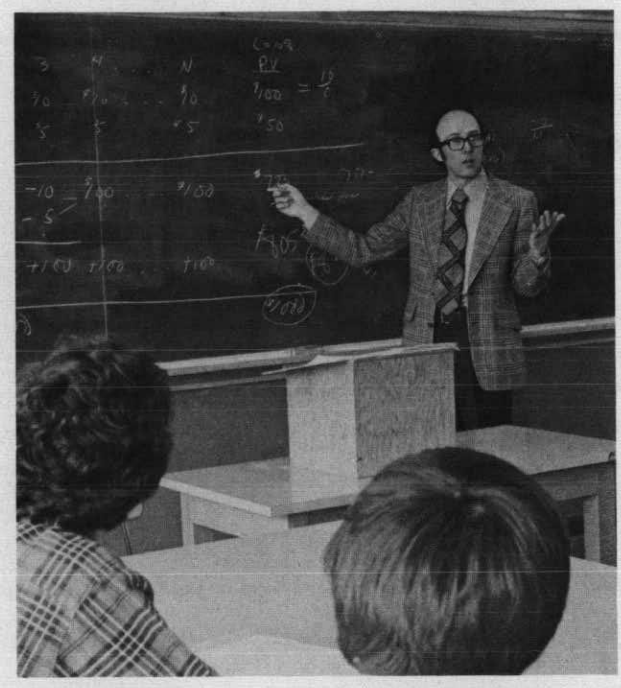
Bus 481 Small Business Management **5 credits**
Procedures and problems in starting and operating a successful small business enterprise. Prerequisite: Senior standing.

Bus 482 Business Policy and Organization **5 credits**
Case studies of policy and administration of business; intellectual discipline which permits understanding a problem, planning a program of action, progression to execution and constant review; original work in analysis and policy decisions. Prerequisite: Senior standing. (fall, winter, spring)

Bus 483 Management Seminar **5 credits**
Development of a specific area of management. Various approaches to study of organizations, conceptual and analytical models, research methodologies, trends in management. Prerequisite: Bus 381, 383, 480, senior standing.

Bus 491 Special Topics **2-5 credits**

Bus 499 Independent Study **1-5 credits**
Supervised individual research. Open to senior business majors with the approval of the student's adviser.



Economics

Objectives

The courses in economics are designed to acquaint the student with the economy in which he/she lives and to provide for the application of these courses to all other social sciences. The tools of analysis necessary to solve such problems as income distribution, domestic and international finance, economic fluctuations and business organizations are acquired and opportunity is given to apply the various methods of solution. 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

General Program Requirements

Students in economics must satisfy the core curriculum of the University on page 18 of this bulletin. In fulfilling the core, Pls 160, Mt 118 and 130 are required. In addition, students who do not elect Ec 273 as part of their major program must take Hs 231 as one of the history core courses.

Departmental Requirements

Bachelor of Arts — 55 credits of economics which must include Ec 271, 272, 372, 374, 479 and seven additional economics courses not including Ec 100 (Bus 343 may be substituted for one); Bus 211 and 230.

Undergraduate Minor — 30 credits of economics which must include: Ec 271, 272, 372, 374 and any two courses in economics selected with the assistance of an adviser.

Bachelor of Arts in Economics

Freshman year

English 100 and core option	10 credits
History 231 and core option	10 credits
Mathematics 118, 130	10 credits
Philosophy 110	5 credits
Political Science 160	5 credits
Elective	5 credits

Sophomore year

Business 211, 230	10 credits
Economics 271, 272	10 credits
Philosophy 220	5 credits
Social Science core option	5 credits
Electives	15 credits

Junior year

Economics 372, 374 and electives	20 credits
Philosophy core option	5 credits
Theology core options	10 credits
Electives	10 credits

Senior year

Economics 479 and electives	25 credits
Electives	20 credits
Total	180 credits

Economics Courses

Ec 100 **Nature of Economic Society** **5 credits**
Evolution of economic institutions, with emphasis on market capitalism, its critics and problems, past and present. Changing roles and responsibilities of government and the private sector.

Ec 271 **Principles of Economics - Macro** **5 credits**
Organization, operation and control of the American economy in its historical and socio-political settings; problems of inflation, unemployment, taxation, the public debt, money and banking, growth.

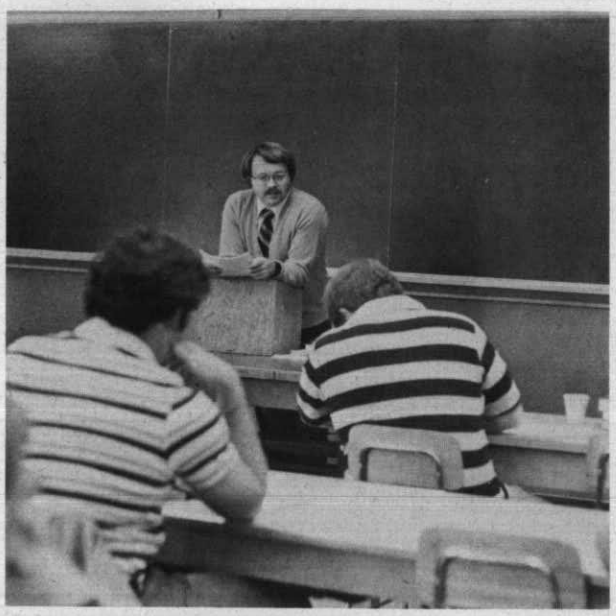
Ec 272 **Principles of Economics - Micro** **5 credits**
Operation of the American economy with emphasis on prices, wages, production and distribution of income and wealth; problems of the world economy.

Ec 273 **American Economic History** **5 credits**
Economic growth of the United States in the light of the political and social trends of the times. Stresses the historical background of contemporary problems.

Ec 275 **Economics of Poverty** **5 credits**
Poverty in the United States with emphasis on urban poverty. Roles of technology, region, race, sex and education on poverty. Success of programs, public and private, in the areas of housing, welfare and occupational training. Legislation related to poverty.

Ec 291 **Special Topics** **1-5 credits**
Ec 292 **Special Topics** **1-5 credits**
Ec 293 **Special Topics** **1-5 credits**

Ec 371 **History of Economic Thought** **5 credits**
Major historical developments in economic thought, ancient to contemporary, Christian influence, merchantilism, laissez faire; German and Austrian schools, Marx and socialists; Keynes and neo-Keynesian analysis.



Ec 372 National Income Analysis **5 credits**
Determination of levels of national income, employment and prices. Problems of unemployment and inflation. Policies for stabilization and growth. Prerequisite: Ec 271.

Ec 374 Intermediate Price Theory **5 credits**
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.

Ec 377 Government and Business **5 credits**
Development in the United States of public policy. Government regulation of industry and commerce and application to mergers, business concentration and restrictive business practices, regulation of public utilities. Prerequisite: Ec 272.

Ec 378 Urban Economics **5 credits**
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.

Ec 379 Environmental Economics **5 credits**
Economic analysis of man's effect on the physical environment; problems of pollution, maintenance of the ecological balance and conservation of natural resources. Prerequisite: Ec 272.

Ec 471 Government Finance **5 credits**
Revenues, expenditures and debts of federal, state and local governments; economic theories; constitutional limitations; government finance as means for social reform; shifting and incidence of taxes. Prerequisites: Ec 271, 272.

Ec 472 International Trade and Development **5 credits**
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. Prerequisite: Ec 271.

Ec 473 International Finance and Investment **5 credits**
Foreign Exchange Market. Balance of Payments. Gold standard and developments. Bretton Woods system, the I.M.F. and current problems. Oil prices and inflation. Post-war international investment. Eurodollars. Prerequisite: Ec 271.

Ec 476 Labor Economics **5 credits**
Survey of the economics of industrial relations; effects of industrial changes on labor; hours and wages; employment and unemployment; trade unionism and labor legislation. Prerequisite: Ec 272.

Ec 477 Economic Development **5 credits**
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.

Ec 478 Comparative Economic Systems **5 credits**
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 and 272.

Ec 479 Senior Research **5 credits**
An advanced course providing the opportunity for students to pursue topics in breadth and depth and apply the tools of economic analysis to current issues in national and international economic policy. Prerequisite: Permission.

Ec 491 Special Topics **2-5 credits**

Ec 499 Independent Study **2-5 credits**
Supervised individual research. Open to senior economics majors with approval of adviser.

SCHOOL OF EDUCATION

School of Education

John A. Morford, Ed.D., Dean
Gary H. Zarter, Ph.D., Associate Dean

Objectives

Within the framework of the University's philosophy and principles, the School of Education has as its objectives the attainment of a liberal and humane education, the formation of men and women dedicated to the art of teaching and knowledgeable of its sciences, and a sound preparation in fields or areas of learning applicable to the curriculum of the elementary and secondary school and adult education.

The School offers programs leading to the Washington provisional teaching certificate, standard teaching certificate, provisional principal's credential, standard principal's credential and school counselor's certificates. Also available are programs to train Montessori school teachers or teachers of the mentally retarded.

Through reciprocal agreements School of Education graduates also qualify for certification in most other states.

Accreditation

The School is accredited by the Northwest Association of Higher Education and the National Council for Accreditation of Teacher Education and approved by the Washington State Board of Education.

Organization

The School of Education has two major divisions, undergraduate studies and graduate studies and one department, Health and Physical Education. Close cooperation exists among all departments, schools and colleges of the University in working out a program of preparation for the individual student.

Degrees Offered

Bachelor of Arts in Education
Bachelor of Education
Master of Arts in Education — See Graduate Bulletin
Master of Education—See Graduate Bulletin
Master of Counseling—See Graduate Bulletin
Doctor of Education—See Graduate Bulletin

Undergraduate Programs

Admission Requirements

All entering freshmen and undergraduate transfer students from accredited institutions of higher learning who aspire to become teachers may be admitted to the School of Education for lower division courses if they meet the University's regular admission standards.

Criteria and Procedure for Admission into Upper-Division Candidacy in the Teacher Training Programs

Requirements for entrance into upper-division candidacy in the teacher training program are higher than those for graduation. Therefore, students must make application for and be accepted into the program prior to registration in Ed 324 and 325, or 434, 435, 437 or 442.

For undergraduates, this application will usually be made during the quarter in which Ed 322 is taken, usually in the sophomore year. Transfer students must complete one quarter at Seattle University before unconditional entrance into upper-division candidacy. Students entering initially as post-bachelor students are evaluated at the time of admission and need not make a separate application for entrance into upper-division candidacy. An interview with a School of Education adviser is required of all applicants, and a plan for completion of upper-division work must be approved by the adviser and submitted with the application.

Applicants for teacher training are evaluated by the School of Education on the following basis: 1) recommendation of the teaching major department, or adviser in the case of elementary or "undecided" students; 2) academic record; 3) physical qualifications; 4) emotional health; and 5) evidence of interest in teaching as a career.

The School will place each applicant into one of four categories:

1. Accepted — may begin upper-division work toward teaching certificate. Criteria are: Unconditional recommendation from major department or adviser; Cumulative grade point average of 2.5, and for secondary candidates a 2.5 grade point average in the major or teaching field; physical ability and appearance necessary for teaching; good moral character and evidence of interest in teaching as a career.

2. Accepted conditionally — may begin work toward teaching certification provided the conditions set forth are met. Conditions most commonly, but not always, relate to the achievement or maintenance of certain grades or grade point averages. The Undergraduate Studies Executive Committee retains the right to refuse to accept conditional students in teaching fields in which an extreme surplus of teachers exists.

   Criteria are: (Any one is sufficient reason for conditional acceptance.)

   Conditional recommendation from major department or adviser; grade point averages below 2.5 but above 2.0 in both cases; a physical defect that makes a teaching career questionable, but not impossible; symptoms of emotional problems or immaturity which make a career in teaching questionable but are currently of a minor nature; evidence of insufficient interest in a career in teaching.

3. Deferred without prejudice — may not begin or continue upper division professional work toward teaching certification but may apply at a later date if certain conditions set forth in the deferral are met.

   Criteria are: (Any one is sufficient cause for deferral.)

   A recommendation that this be done from the major department or adviser; a grade point average below 2.0 overall or in teaching major; a physical defect which currently would make a teaching career impossible but which is correctable; evidence of an emotional problem or immaturity which may be overcome by time.

4. Rejected — may not begin or continue work toward teaching certification. Ordinarily, rejected applicants will not be reconsidered at a later date.

   Criteria are: (Any one is sufficient cause for rejection.)

   A recommendation that this be done from the major department or adviser; physical defect making a career in teaching impossible; evidence of lack of the moral character needed for teaching; evidence of emotional and/or mental immaturity or disorder of a type which is not likely to be changed by time and which makes the applicant unsuited for teaching.

Applicants may appeal the classification by the Associate Dean to the Undergraduate Studies Executive Committee. Appeals must be made in writing within one week of notification of classification.

The status of any student is reviewed automatically if the student receives a grade of D or lower in a professional course, drops below the required grade point average or the adviser so recommends.

Admission to Student Teaching

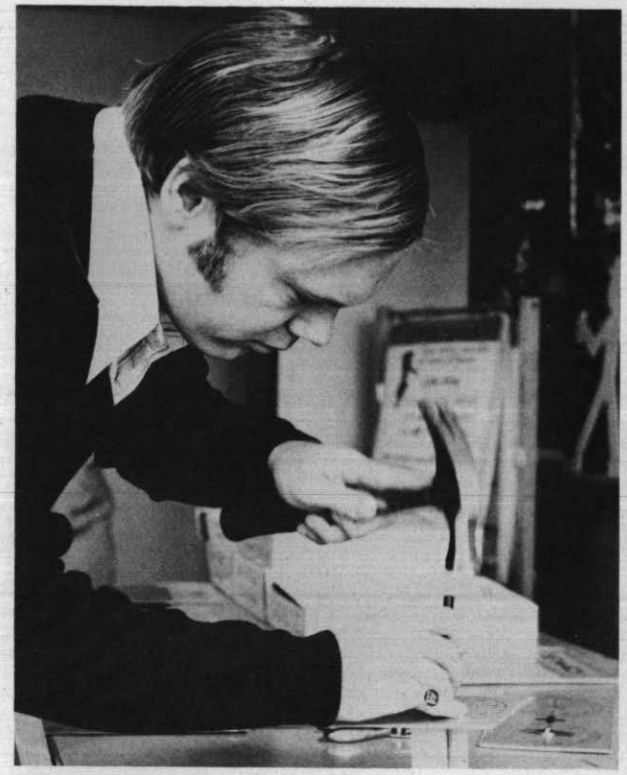
Acceptance into upper-division candidacy in the teacher training program and completion of prerequisite courses does not guarantee admittance into student teaching. An application must be submitted to the Dean by the end of the fifth week of the quarter prior to the one in which the student wishes to fulfill the student teaching requirement. Specific dates during which forms may be obtained and submitted are announced each quarter.

Categories and criteria for acceptance are the same as those listed above except, recommendation from the faculty in the School of Education is also considered, and the student must have a grade point average of 2.5 in three areas: cumulative, in the teaching field (secondary), and in professional education courses.

Curriculum

The teacher preparation curriculum at Seattle University encompasses three components:

The liberal core of arts and sciences offered at Seattle University comprises about 35 per cent of the prospective teacher's curriculum. Forty per cent of the program is utilized in gaining a depth of knowledge in a teaching major for the secondary school teacher or two teaching areas for the elementary school teacher. The remaining 25 per cent of the 190 quarter hour basic teaching preparation is received in professional courses in foundations of education, psychology of child and adolescent development and learning, the principles, materials and technology of teaching, and closely supervised and assisted student teaching and appropriate laboratory experience in schools throughout the area. At least one course having primary emphasis on multi-cultural or ethnic heritage must be included.



Typical Program

Freshman year

English core options	10 credits
History core options	10 credits
Philosophy core options	5 credits
Social Science core option	5 credits
Major or electives	15 credits

Sophomore year

Education 322	5 credits
Mathematics/Science core options	10 credits
Philosophy core options	10 credits
Theology core options	10 credits
Major or electives	10 credits

Junior year

Education 324, 325, 330, 337	20 credits
Physical Education	5 credits
Major or electives (including course in teaching of major)	25 credits

Senior year

Education 439	3 credits
Student Teaching	12 credits
Major and electives	35 credits
Total	190 credits

General Program Requirements

Bachelor of Arts in Education Secondary

Bachelor of Arts in Education (middle school, junior high school, or senior high school teaching) — 1) All University core requirements as found on page 18: 60 credits, 2) A teaching major or of at least 45 credits in any subject commonly taught in secondary schools. (See departmental sections of the bulletin for exact requirements in each teaching major. Where no requirements are shown in a departmental section, an individualized program must be developed jointly). 3) Professional education courses: 45 credits. 4) Electives: 40 credits. Students are advised to use electives to complete additional teaching fields.

For recommendation to Comprehensive Social Studies the following are required: 1) a major in **one** of the social studies fields, 2) at least 25 hours in history, including American, Western, and non-Western, and 3) a minimum total of 70 quarter credits in the social studies, including courses in at least three social studies areas in addition to history.

For recommendation in Business Education the following must be completed: 1) Bus 230, 231, 270, 340, and 380; 2) Econ. 271 and 272; 3) Ed 430, Teaching Secondary Subjects: Business: 4) proficiency must be demonstrated in **two** of these skills—typing, shorthand, office machines.

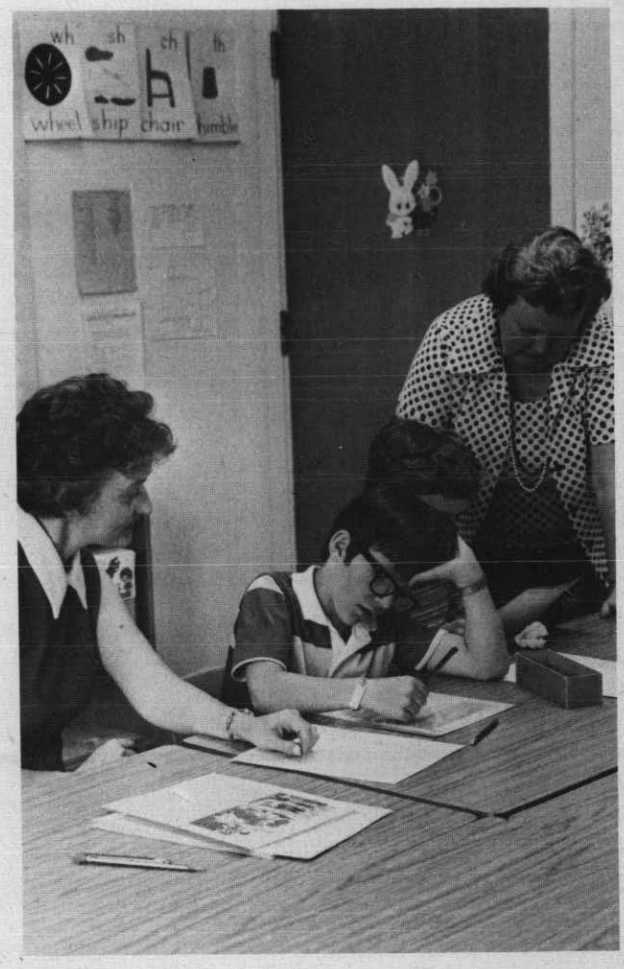
Ten of the 190 credits required for the degree and provisional certification also count toward the standard certificate teachers must earn once they begin teaching.

Bachelor of Education
Elementary

Bachelor of Education (elementary, middle school, junior high school or Montessori school teaching — 1) All University core requirements: 60 credits. The B.Ed. requires certain specific core courses as shown in the program outline. See page 18 for remaining core requirements. 2) Common courses: 25 credits. Includes work in art, music, geography, literature, speech and physical education needed by all elementary and middle school teachers. 3) A teaching major of at least 25 credits and a teaching minor of at least 20 credits in subjects or areas commonly taught in elementary or junior high schools. Junior high candidates must take the 25 hour teaching major in a specific subject taught at the junior high level. 4) Professional education courses: 50 credits. 5) Electives: 10 credits. These vary slightly for students seeking either special education or Montessori training.

Ten of the 190 credits required for the degree and provisional certification also count toward the standard certificate teachers must earn once they begin teaching.

Students interested in Montessori teaching should confer with the Montessori Program Director early in their studies.



Elementary
Typical Program

Freshman year

English core (include American Literature)	10 credits
History core (include U.S. History)	10 credits
Philosophy core option	5 credits
Social Science core option	5 credits
Teaching subject or supporting area	15 credits

Sophomore year

Art 370, Music 114	10 credits
Biology 205; Mathematics 200	10 credits
Education 322	5 credits
Philosophy core options	10 credits
Theology core options	10 credits

Junior year

Education 324, 325	10 credits
Physical Education	5 credits
Education 330, 336, 340	15 credits
Teaching subject and electives	20 credits

Senior year

Education 438	3 credits
Student teaching	12 credits
History 341 or Speech 320 or Education electives and 420	15 credits
Teaching subject and supporting area and electives	20 credits
Total	190 credits

Typical Program
Elementary with Montessori Emphasis

Freshman year

English core (include American Literature)	10 credits
History core (include U.S. History)	10 credits
Philosophy core option	5 credits
Social Science core option	5 credits
Teaching subject or supporting area	15 credits

Sophomore year

Art 370, Music 114	10 credits
Biology 205; Mathematics 200	10 credits
Education 322	5 credits
Philosophy core options	10 credits
Theology core options	10 credits

Junior year

Education 328, 329	10 credits
Physical Education	5 credits
Education 336 and 340	10 credits
Teaching subject and electives	22 credits

Senior year

Student teaching (½ day for a year)	18 credits
Education 434, 435, 437, 442	20 credits
One of Ed 374, Hs 341, or Ed 420	5 credits
Teaching subjects	10 credits
Total	190 credits

Typical Program
Special Education: Teaching Mentally Retarded

Freshman year
English core (include American Literature) .... 10 credits
History core (include U.S. History) .....10 credits
Philosophy core option..... 5 credits
Social Science core option ..... 5 credits
Teaching subject or supporting area .....15 credits

Sophomore year
Art 370, Music 114.....10 credits
Biology 205; Mathematics 200 .....10 credits
Education 322 ..... 5 credits
Philosophy core options .....10 credits
Theology core options.....10 credits

Junior year
Education 324 and 325.....10 credits
Education 330, 336, 340 .....15 credits
Education 438 and 425..... 6 credits
PE 352 and 410 ..... 6 credits
Teaching subjects.....13 credits

Senior year
Student teaching .....12 credits
Education 424, 426, 427 ..... 9 credits
Education Electives ..... 5 credits
Teaching subjects and elective .....24 credits

Total . . . . 190 credits

Special Non-Degree Programs

A number of programs may be taken in addition to or separately from degree requirements:

For bachelor's degree holders **without** teacher training: (at least 30 hours must be completed at Seattle University in these programs to receive our recommendation.)

a) Elementary teaching provisional certification,
b) Secondary teaching provisional certification,
c) Montessori teaching certification.

For bachelor's or master's degree holders with teacher certification or its equivalent:

a) Standard certification (fifth-year); may be either a non-degree program or combined with a master's degree.
b) Provisional principal's credential.
c) Standard principal's credential.
d) School counselor's certification.

See Graduate Bulletin for further details.

Education Courses

Ed 101 Developmental Reading 1-5 credits
Individualized course in college reading. Topics include: reading textbooks effectively, taking lecture notes, taking tests, analytic reading skills, speed reading, vocabulary and spelling improvement. May be taken as complete unit, or in parts. Mandatory CR/NC.

Ed 102 College Study Skills 1-5 credits
Course to develop skills in note-taking, test taking, outlining, effective textbook reading and time management. Mandatory CR/NC.

Ed 103 Individual Writing Skills 1-5 credits
Individualized course in writing academic prose, e.g., essays, term papers, research papers. May include grammar, punctuation, spelling, vocabulary, syntax, paragraph and essay structure. Mandatory CR/NC.

Ed 291 Special Topics 1-5 credits
Ed 292 Special Topics 1-5 credits
Ed 293 Special Topics 1-5 credits

Ed 322 Psychology of Development 5 credits
Developmental changes in the normal human being with emphasis on application to the school age years. Includes observations in the field. (fall, winter, spring)

Ed 324 Foundations of American Education 5 credits
Foundation study of the philosophy, sociology and history of public, private and Catholic education in the United States; field experience to support classroom theory and laboratory work. Prerequisite: Ed 322; corequisite: Ed 325. (fall, winter)

Ed 325 Psychology of Learning 5 credits
Study of learning in classroom; theories of learning; organization and retention of knowledge; evaluation of mental processes; factors in the economy of learning. Includes field experience. Prerequisite: Ed 322; corequisite: Ed 324. (fall, winter)

Ed 328 Montessori Orientation 5 credits
Basic philosophy, principles and procedures of environmental learning within a "prepared environment." Perceptual-motor education as utilized by everyday living and learning experiences of the young child. (fall)

Ed 329 Sensorial Education 5 credits
Experience with the education of the senses in isolation. Also a study of the acquisition of practical skills within the child through his absorptive and imitative tendencies which lead gradually to abstraction. (fall)

Ed 330 General Methods, Media and Materials 5 credits
Application of principles of learning and development to preparing, organizing and presenting learning units. Field experience. Prerequisites: Ed 324, 325; corequisites: Ed 340 and 336 or 337. (winter, spring)

Ed 335 Early Childhood — Kindergarten 3 credits
Principles, organization and methods of teaching. (summer)

Ed 336 Fundamentals of Reading Instruction — Elementary 5 credits
Nature of the reading process, sequence of skills K-6, recommended practices, materials, methods of diagnosis and evaluation. Includes field experience. Prerequisites: Ed 322, 325; corequisite: Ed 330. (fall, winter, spring)

Ed 337 Fundamentals of Reading Instruction — Secondary 5 credits
Development of reading and study skills; reading in content areas; diagnosis and evaluation, special reading programs. Includes field experience. Prerequisite: Ed 325; corequisite: Ed 330. (winter, spring)

Ed 340 Fundamentals of Mathematics Instruction — Elementary 5 credits
Study of number systems including basic operations and properties of numbers; principles of teaching these concepts K-6; includes field experience. Prerequisite: Mt 200. (winter, spring)

Ed 342 Pacific Science Center Internship 3 credits
Laboratory experience working with a teaching team in mathematics or science, grades 2-8. Prerequisites: Ed 340 and selective interview by Science Center staff prior to quarter.

Ed 372 Teaching Geography and Social Studies 5 credits
Survey of modes, methods, media and materials for instruction in a Social Studies program with basic concepts from geography as the core.

Ed 373 Story Telling — Primary 3 credits
Selection and interpretation of kindergarten-primary grade literature. For Kindergarten-primary grade teachers and elementary school librarians.

Ed 374 Literature for Children 5 credits
Selection, introduction and student use of literature for preschool, kindergarten, primary and intermediate grades. (winter)

Ed 375 Literature for Early Childhood 3 credits
Survey of the present field of literature for early childhood and primary education. (summer)

Ed 376 Literature for Youth 3 credits
Survey of junior books and an analysis of adult books suitable for intermediate grade children and early adolescence. (summer)

Ed 378 Literature for Later Childhood 3 credits
Survey of literature for children in grades 4-8.

Ed 391 Special Topics 1-5 credits
Ed 392 Special Topics 1-5 credits
Ed 393 Special Topics 1-5 credits

Ed 401 Workshop in Elementary School Methods (summer) **3 credits**

Ed 420 Teaching Elementary School Subjects 5 credits
Methods of teaching in specific subject areas and levels of the elementary school. Required concurrently with student teaching. Prerequisite: Ed 330. (fall, winter, spring)

Ed 424 Introduction to Learning Disabilities 3 credits
History and current practices in diagnosis and remediation of learning disabilities.

Ed 425 Psychology of the Exceptional Child 3 credits
Study of the atypical child who deviates from the normal to well above or below the average; tests for evaluation; consideration of remedial techniques. Prerequisite: Ed 322 or permission of instructor.

Ed 426 Special Education—Introduction to Mental Retardation 3 credits
Study of the syndromes and behavioral characteristics of the mentally retarded and survey of the current trends in the field.

Ed 427 Special Education—Methods in Mental Retardation 3 credits
Application of principles of learning and development in designing instructional programs for the mentally retarded. Prerequisite: Ed 426.

Ed 428 Special Education—Language Development 3 credits
An introduction to critical features of the developmental processes of receptive and expressive language with consideration of diagnosis, curriculum and method.

Ed 430 Teaching Secondary School Subjects 5 credits
General methods of teaching in specific subjects, areas and levels of the secondary school. Prerequisite: Ed 330; corequisite: Ed 445.

Ed 434 Montessori Language Arts Methods & Materials 5 credits
Development of language and communication skills as basis of language program, readiness for reading and writing, materials and methods for teaching language arts. Supervised practice. (winter)

Ed 435 Montessori Mathematics Methods & Materials 5 credits
Readiness for learning mathematical concepts, orderly progression of skills within the materials, introduction to number and its properties, basic operations leading to abstraction. Supervised practice. (winter)

Ed 437 Comparative and Observational Study of Early Education 5 credits
Current trends of Open Classroom structures will be compared to the Montessori approach to learning. British infant and Integrated Day, Free School, Individualized systems. Observation—30 clock hours. (spring)

Ed 438 Laboratory Experience—Elementary 1-6 credits
Mandatory CR/NC. (fall, winter, spring)

Ed 439 Laboratory Experience—Secondary 1-6 credits
Mandatory CR/NC. (fall, winter, spring)

Ed 440 Student Teaching — Elementary 12 credits
One quarter of full-day supervised teaching experience on the elementary school level. Prerequisite: Ed 330 and permission of the Dean. Corequisite: Ed 420. (fall, winter, spring)

Ed 441 Montessori Student Teaching 18 credits
Supervised teaching within Montessori preschool. A half day (daily) session in an approved or credentialed school under a Montessori teacher. (8 credits in fall; 5 credits in other quarters.)

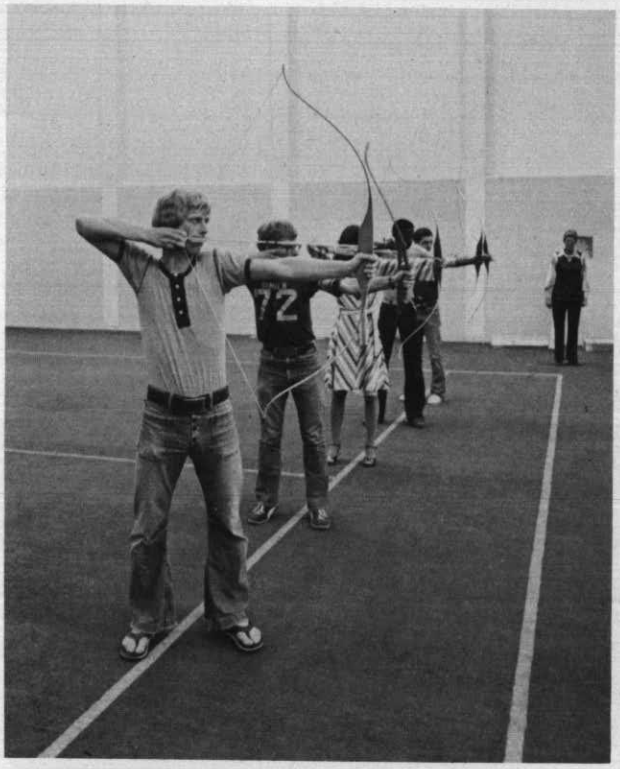
Ed 442 Cosmic Environmental Learning 5 credits
Study of the world, flora, fauna and inhabitants, emerging through time lines and other concrete materials made by that student in social studies, geography and cultural history. (spring)

Ed 445 Student Teaching — Secondary 12 credits
One quarter of full-day supervised teaching experience on the secondary school level. Prerequisite: Ed 330 and permission of the Dean. (fall, winter, spring)

Ed 446 Student Teaching — Supplementary 5-15 credits

Ed 491 Special Topics 1-5 credits
Ed 492 Special Topics 1-5 credits
Ed 493 Special Topics 1-5 credits

Ed 497 Independent Study 1-5 credits
Ed 498 Independent Study 1-5 credits
Ed 499 Independent Study 1-5 credits



Health and Physical Education

Joseph T. Page, Ph.D., Chairman

Objectives

The Health and Physical Education department has as its prime objectives the physical and neuromuscular skill development and the recreational welfare of all students. The department fulfills two major functions at Seattle University. These are:

The professional preparation of young men and women as teachers of health and physical education.

The sponsorship of a broad range of physical education instructional service programs designed to meet the physical activity needs of college men and women.

Degrees Offered

Bachelor of Arts in Education
Master of Education — See Graduate Bulletin
Master of Arts in Education — See Graduate Bulletin

General Degree Requirements

Students in the fields of health and physical education must satisfy University core curriculum requirements as given on page 18 of this bulletin and those of the School of Education.

All students planning to receive a teaching certificate must be accepted by the School of Education but such acceptance does not imply that the student will be permitted to pursue this teaching field. Students may indicate their interest in this area at the time of application for admission to the School of Education. During the succeeding months their aptitude and promise for the field of physical education will be evaluated.

Counseling, designed to assist the student to develop in ways requisite for successful teaching and leadership in the field, will be offered. Candidates must demonstrate superior physical skills, intellectual competency, and desirable personality and character traits before they will be accepted.

Candidates for teaching certificates will complete the required courses in teacher education. Upon graduation, certified teachers will have, in addition to the general and professional education requirements, a total major area of 55 credits or for the minor, 25 credits in health and physical education.

Departmental Requirements

Bachelor of Arts in Education (Health and Physical Education) — 55 credits in health and physical education courses which must include: PE 200, 210, 220, 230, 350, 460; 15 credits in selected major activities and 12 credits of approved area electives.

Undergraduate Teaching Minor (Health and Physical Education) — 25 credits which must include PE 220, 230, 350, 460 and 7 credits in approved activities.

Minor in Athletic Coaching — 27 credits which must include PE 210, PE 220, PE 320, 5 credits of approved Major Activities and 8 credits selected from coaching theory classes which must include PE 408 or PE 409. This sequence is recommended for teachers of any subject matter with an interest in assuming coaching responsibilities in elementary or secondary schools.

Master's Degree in Curriculum and Instruction — Emphasis in Physical Education — See Graduate Bulletin.

Bachelor of Arts in Education

Freshman year

English 100 and core option	10 credits
History core option	10 credits
Major, minor or electives	21 credits
Mathematics/Science core option	5 credits
Social Science core option	5 credits

Sophomore year

Education	10 credits
Major, minor or electives	20 credits
Mathematics/Science core option	5 credits
Philosophy 110, 220	10 credits

Junior year

Education	15 credits
Major, minor or electives	29 credits
Philosophy core option	5 credits

Senior year

Education 445	15 credits
Major, minor or electives	20 credits
Theology core options	10 credits
Total	190 credits

Health and Physical Education Courses

Basic instructional courses in activities indicated are designed to meet the physical and recreational needs of college men and women. PE 120-154 all CR/NC.

PE 120 **Badminton** **1 credit**
PE 121 **Bowling** **1 credit**
PE 123 **Gymnastics** **1 credit**
PE 124 **Swimming** **1 credit**
PE 125 **Tennis** **1 credit**
PE 126 **Volleyball** **1 credit**
PE 127 **Racquet Ball** **1 credit**
PE 129 **Skiing** **1 credit**
PE 130 **Paddle Sports** **1 credit**
PE 131 **Archery** **1 credit**
PE 132 **Handball—Squash** **1 credit**
PE 135 **Fencing** **1 credit**
PE 138 **Conditioning** **1 credit**
PE 142 **Developmental Physical Education—Men** **1 credit**
PE 143 **Modern Dance** **1 credit**
PE 147 **Folk-Square Dance** **1 credit**
PE 148 **Self-Defense—Men and Women** **1 credit**
PE 149 **Synchronized Swimming** **1 credit**
PE 152 **Golf-Intermediate and Advanced** **1 credit**
PE 153 **Gymnastics—Intermediate and Advanced** **1 credit**
PE 154 **Swimming—Intermediate and Advanced** **1 credit**

PE 200 **Personal and Community Health** **5 credits**
Comprehensive course covering all basic aspects of health education; personal health problems; school health programs; community health agencies and problems. (spring)

PE 210 **Anatomy and Kinesiology** **5 credits**
Foundation science course combining structure with function. Emphasis on muscular, circulatory and cardio-respiratory bodily systems. (spring)

PE 220 **Physiology of Exercise** **5 credits**
Study of physical changes as the result of muscular activity; the muscular, circulatory and cardio-respiratory systems. Prerequisite: BI 200. (winter)

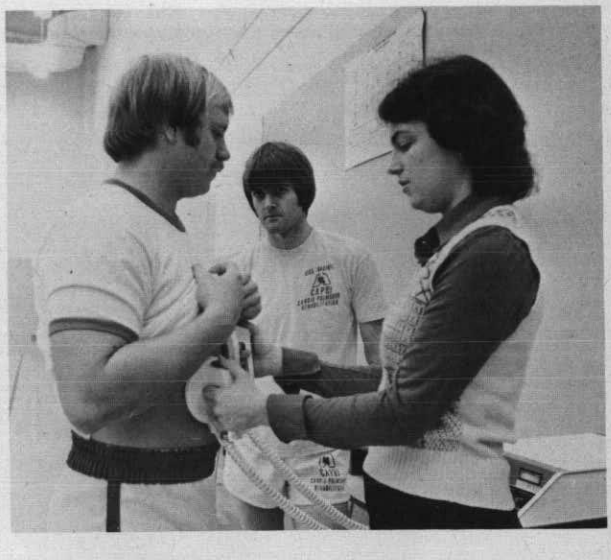
PE 230 **Instructor-Standard First Aid and Personal Safety** **3 credits**
Skills, knowledge, teaching methods. American Red Cross standards and certification. (winter)

Major Activities: Concentrated study of skills, techniques, and teaching methodologies pertinent to elementary and secondary physical education activities.

PE 250 **Major Activities I** **5 credits**
Badminton, Volleyball, Golf and Tennis

PE 251 **Major Activities II** **5 credits**
Movement Exploration, Gymnastics

PE 252 **Major Activities III** **5 credits**
Track, Soccer, Football and Speedball



PE 253 **Major Activities IV** **5 credits**
Wrestling and Weight Training, Baseball, Basketball

PE 254 **Major Activities V** **5 credits**
Folk-Square Dancing, Bowling and Archery

PE 255 **Major Activities VI** **5 credits**
Swimming, Life Saving, WSI

PE 256 **Major Activities VII** **5 credits**
Basketball - Women, Track and Field

PE 257 **Major Activities VIII** **5 credits**
Recreational Games

PE 258 **Major Activities IX** **5 credits**
Field Sports - Women

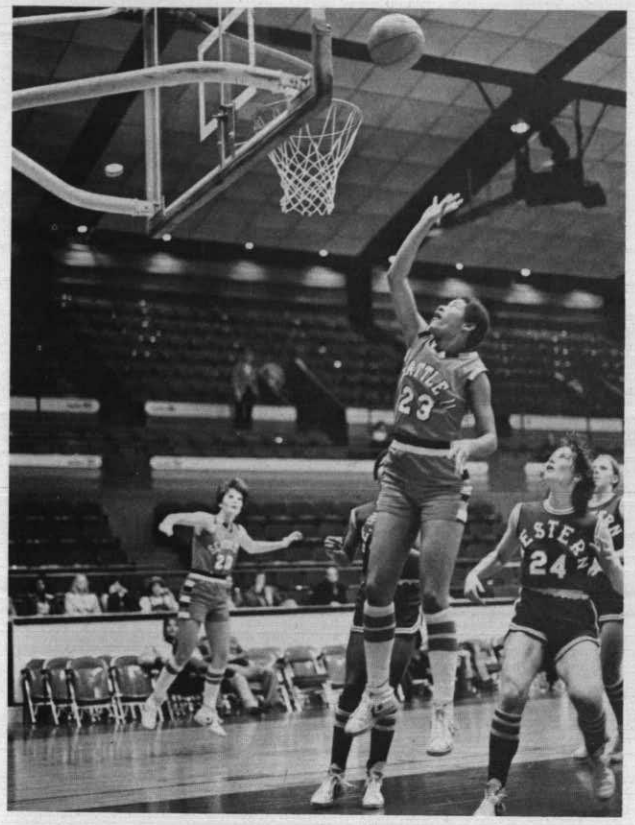
PE 291 **Special Topics** **1-5 credits**
PE 292 **Special Topics** **1-5 credits**
PE 293 **Special Topics** **1-5 credits**

PE 320 **Care and Prevention of Athletic Injuries** **4 credits**
Common athletic injuries and problems with emphasis on prevention. Includes pre and post injury care, such as taping and conditioning. (spring)

PE 330 **Test and Measurements in Physical Education** **3 credits**
Utilization of available testing procedures in physical education; evaluation of student achievement in terms of objectives. Includes statistical analysis of data. (winter)

PE 350 **Principles and Practices in Physical Education** **5 credits**
Concentrated analysis and study of the foundational principles of physical education. Application of these principles to problems in curriculum, methodology, administration and evaluation. (fall)

PE 352 **Orientation to Health and Physical Education — Elementary** **3 credits**
Curriculum purposes, procedures and techniques, includes legal liability, evaluation. Required of all elementary education majors. (fall, winter, spring, summer)



PE 353 Orientation to Health and Physical Education — Secondary **3 credits**
Objectives, content services and relationship to the total school program. Required of secondary education majors. (fall, winter, spring)

PE 380 Camp Counseling and Administration **5 credits**
The educational significance and social impact of camping, organization and practical application of activities, and problems of administration and leadership.

PE 385 Philosophy of Recreation **5 credits**
Social impact of recreation: city-county, institution, industry, agency; special groups—handicapped, geriatrics; issues.

PE 398 Modern Dance **2 credits**
An activity course open to all students. (winter)

PE 408 Officiating of Women's Sports **3 credits**
Philosophy and techniques applicable to girls' and women's sports in schools and colleges. (fall)

PE 409 Psychology of Coaching **5 credits**
Principles and practices applicable to the coaching of sports on any level of learning. Empirical theories resulting from observations of coaches in the handling of youth who are qualifying for school teams. (fall, summer)

PE 410 Perceptual Motor Development **3 credits**
Principles of perceptual motor development and their application in the education of the exceptional child. (spring)

PE 420 Elementary Physical Education Workshop **5 credits**
Improving the classroom teacher's background in physical education through basic movement skills and rhythmic activities. (summer)

PE 460 Organization and Administration of Physical Education **5 credits**
Summary professional course in physical education; includes service, intramural and inter-scholastic programs; stresses curriculum, scheduling, facilities. Prerequisites: Upper division standing and departmental approval. (fall)

PE 465 Organization and Administration of Recreation Programs **5 credits**
Organization and administration of recreation programs to include the practical aspects of: staffing, budgeting, funding, activities and public relations.

Coaching Courses: Concentrated study of the philosophy, practice, organization, theory and techniques of coaching interscholastic athletics.

PE 470	**Football Coaching**	**2 credits**
PE 471	**Basketball Coaching**	**2 credits**
PE 472	**Baseball Coaching**	**2 credits**
PE 473	**Track and Field Coaching**	**2 credits**
PE 474	**Gymnastics Coaching**	**2 credits**
PE 475	**Wrestling Coaching**	**2 credits**
PE 476	**Swimming Coaching**	**2 credits**
PE 477	**Golf Coaching**	**1 credit**
PE 478	**Tennis Coaching**	**1 credit**

PE 480 Current Issues in Physical Education **3 credits**
Trends and factors influencing physical education and other movement-oriented programs; implications for meeting student and community needs in implementing relevant programs in schools and colleges.

PE 482 Historical Foundations of Physical Education **3 credits**
Traces the historical development of physical education and athletics from the early societies to modern culture. Emphasis on current applications.

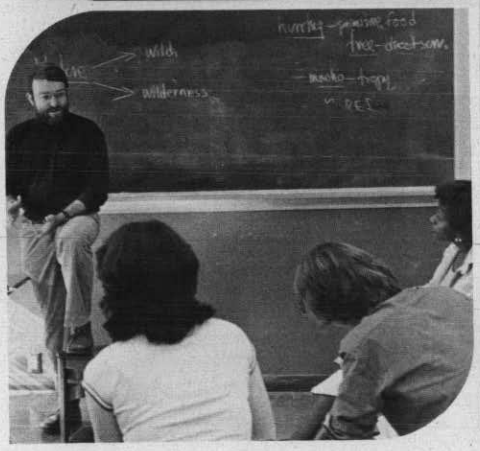
PE 484 The Drug Scene **3 credits**
A survey of the misuse and abuse of licit and illicit drugs. Scientific information for concerned school personnel presented by professional people working with drug problems and users.

PE 486 Women in Sport **3 credits**
A historical, sociological and biophysical approach to women in sport with emphasis on concepts, impacts and implications related to American and World culture, past, present, and future.

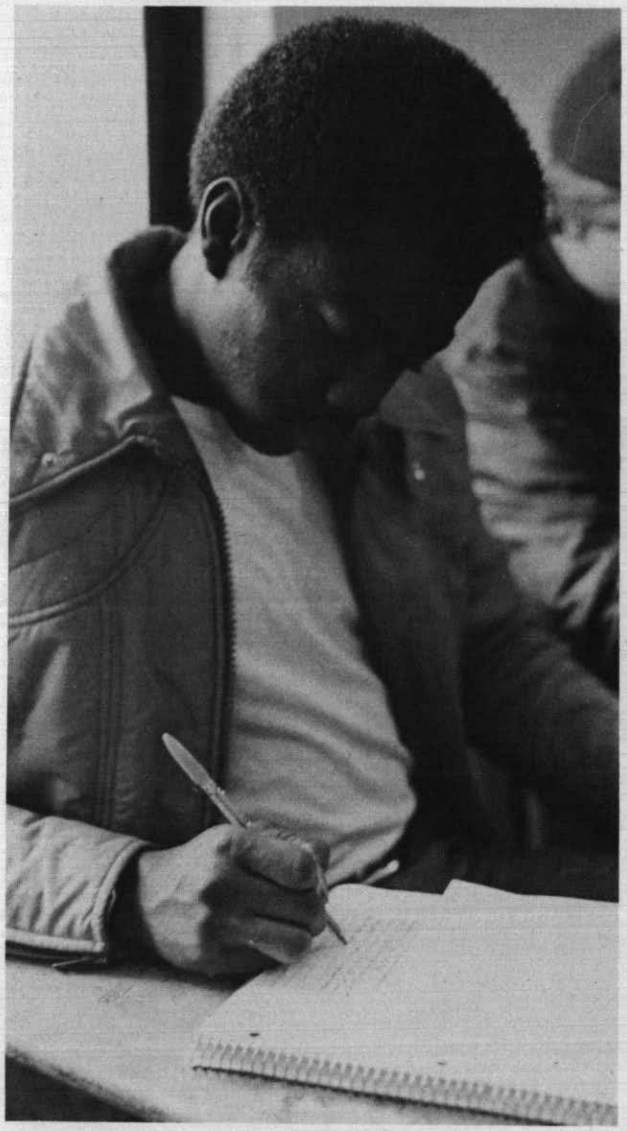
PE 488 Seminar: Sports and American Culture **3 credits**
Reviews development and purposes of intercollegiate, interscholastic and professional sports. Focuses on issues, problems, opportunities and challenges, particularly for minorities.

PE 491 Special Topics **1-5 credits**
(fall, winter, spring, summer)

PE 498 Independent Study **1-5 credits**



MATTEO RICCI COLLEGE - II



Matteo Ricci College—II

Edwin H. Weihe, Ph.D., Director

Matteo Ricci College is a coordinated and integrated six year program which begins with the traditional freshman year of secondary school and concludes with the granting of a baccalaureate degree by Seattle University. Form One, the first three years of the program, operates out of the Interlaken Campus of Seattle Preparatory School. Form Two, the subsequent three years, is an academic division of Seattle University on the Seattle University campus.

Objectives

Matteo Ricci College seeks to develop students who shape their personal and social futures through responsible choices. The objectives of the Form II program are to continue the harmonious development of the student's cognitive, affective, and valuative potential; bring the student to a reflective consciousness of "how" he or she learns; and foster an inquiring, caring community of learners and teachers. Focusing on the student's intellectual, aesthetic, emotional, ethical, and religious life, the curriculum is designed to sharpen and test generalizable learning skills; 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; expose a variety of values clarifying themes and problems for interdisciplinary investigation; and encourage prescriptive self-assessment.

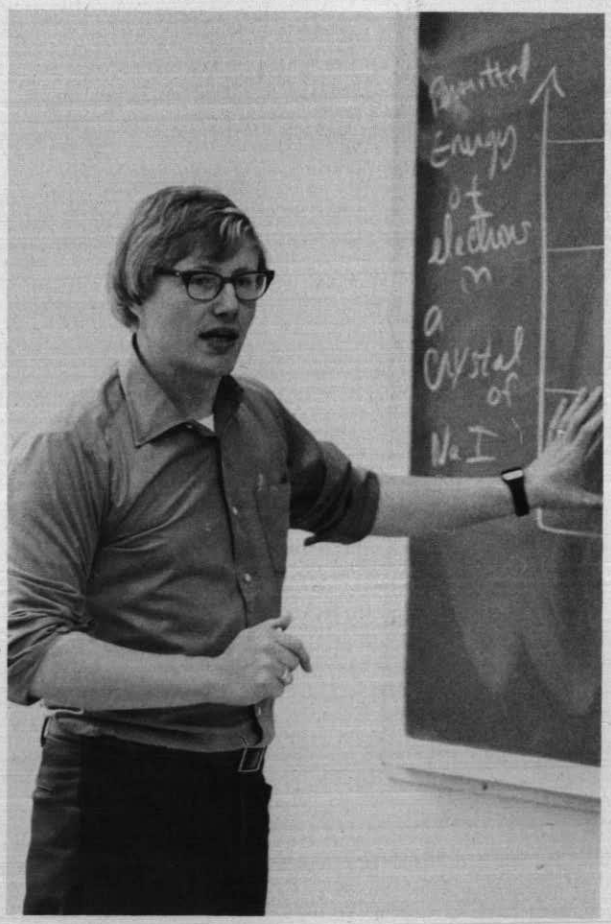
While the Matteo Ricci College program does not attempt to advance the student in only six years to the level of vocation-oriented specialization sometimes acquired in eight, it does provide a foundation for, and initiation into, professional training, effectively preparing the student to pursue either a second baccalaureate or graduate degree.

Admission Requirements

Only students who have successfully completed the academic program of Matteo Ricci College-I will be admitted to the academic program of Matteo Ricci College-II at Seattle University.

Degree Offered

Bachelor of Arts in Humanities



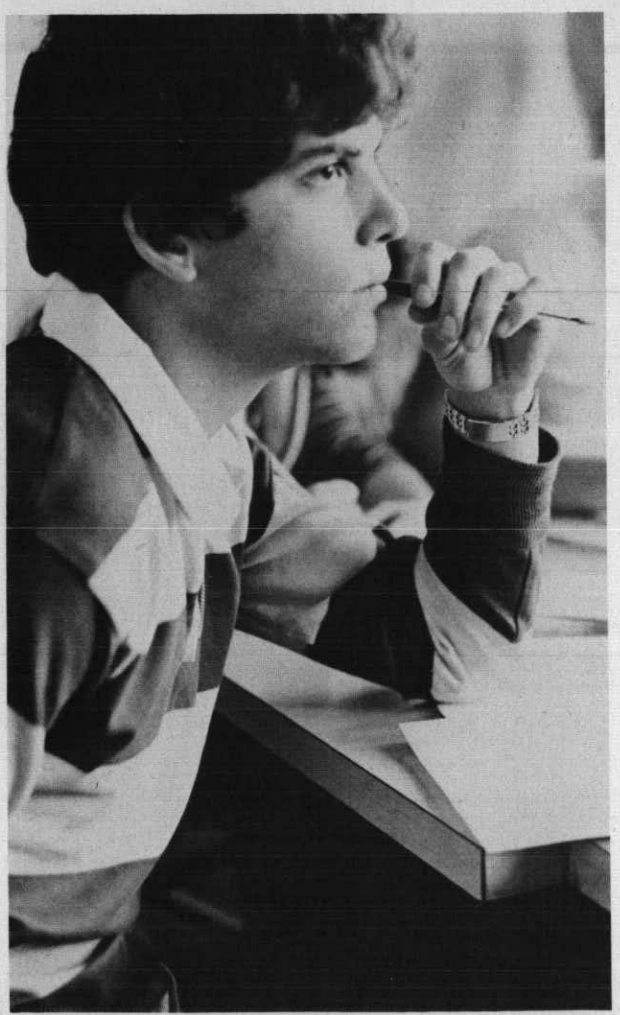
General Program Requirements

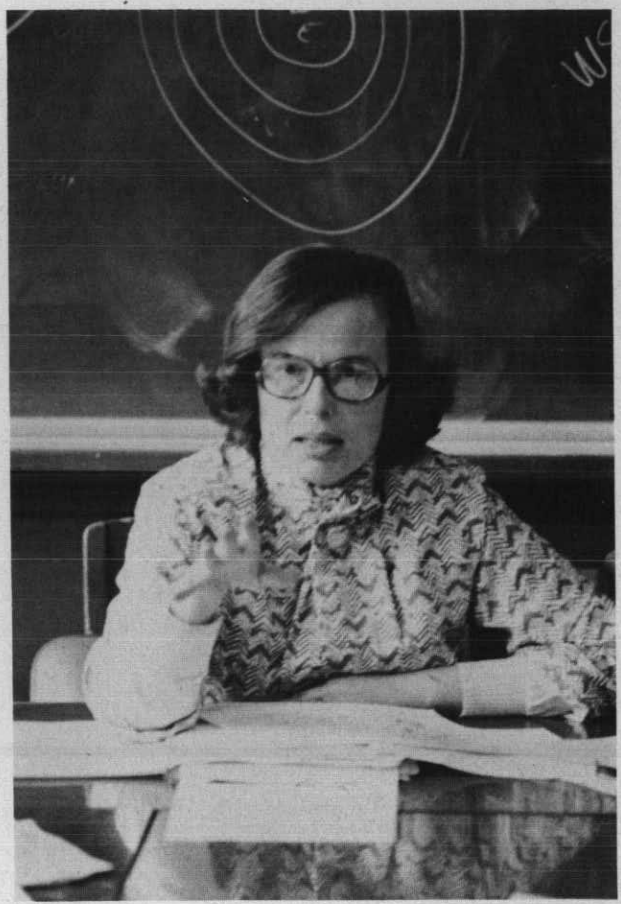
The MRC-II Advisory Panel members serve as the principal advisers to all MRC-II students on academic and academically-related matters. Consequently, an MRC-II student may not register for any Seattle University course, either in the summer session or during the regular academic year, without first consulting and receiving the written permission of an Advisory Panel member.

Degree Requirements

135 credits which must include: 60 credits in MRC/HUManities courses; a maximum of 45 credits in either a General Studies/Humanities area or a single discipline focused in the College of Arts and Sciences, **or** a maximum of 55 credits in a General Studies/Science area, in Pre-Professional Studies, or in a single discipline focused in one of the University's professional schools; and the remaining credits in courses approved by the student's MRC-II adviser.

MRC-II students who have successfully completed a Pre-Professional course of study may apply these 55 credits toward a second baccalaureate degree, subject to the approval of the appropriate professional school, and the University regulation of 45 minimum additional credits for a second baccalaureate degree.





Typical Schedule

Year/4

HUM 100, 200 series courses .....30 credits
Major and Approved Courses.....15 credits

Year/5

HUM 300 series .....15 credits
Major and Approved Courses.....30 credits

Year/6

HUM 400 series .....15 credits
Major and Approved Courses.....30 credits

Total . . . . 135 credits

Matteo Ricci College/HUM Courses

HUM 150 Composition: Language I **2 credits**
Study and practice in forming one's meaning into words and converting words composed by others into meaning for one's self, with emphasis upon clear, logical, and persuasive writing.

HUM 151 Composition: Language and the Arts **5 credits**
Interdisciplinary study and practice in artistic composition and communication; emphasis upon literature, music, and the visual arts.

HUM 160 Modes of Inquiry: Scientific **3 credits**
Investigation of scientific method, emphasizing the creative and critical phases of human knowing in the natural sciences; practical training in informal logic, clear thinking, and communication.

HUM 180 Western Cultural Traditions I **5 credits**
HUM 181 Western Cultural Traditions II **5 credits**
A two-quarter, interdisciplinary study of the evolution of major systems of meaning and value in Western Civilization; emphasis on understanding and evaluating criteria for judging claims to truth and morality as basis for action.

HUM 250 Composition: Language II **2 credits**
Application of the skills of logical, persuasive, and artistic composition and analysis to the student's communication of his/her immediate experiences and their interpretation.

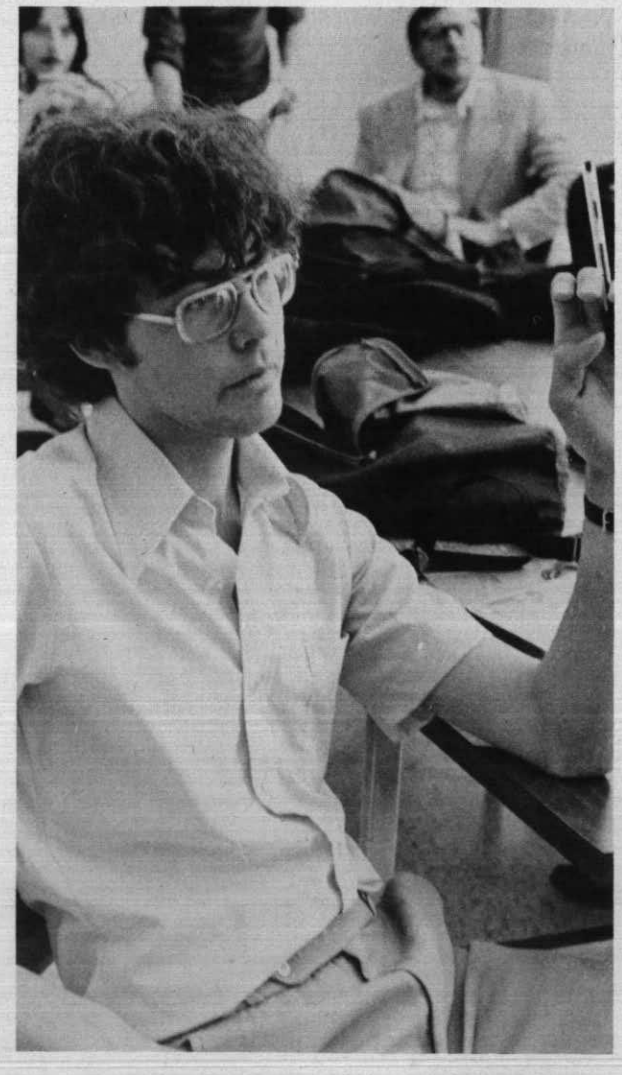
HUM 260 Modes of Inquiry: Humanistic **3 credits**
Study and practice in the data gathering and interpretive methods in the social sciences; comparison of these methods with those in the natural sciences and the arts.

HUM 280 Cultural Interface **5 credits**
Interdisciplinary study of the elements of human behavior which define culture, and the processes of interaction between European culture and cultures of Asia and Africa.

HUM 300 Contemporary Social Structures in the United States **5 credits**
Study of social structures in the United States through selections drawn from the social science disciplines; emphasis upon the relationships among, and human impact of, existing social structures.

HUM 301 Perspectives on the Human Person I **5 credits**
HUM 302 Perspectives on the Human Person II **5 credits**
Study of the relationships between individuals, and between individuals, society, the world, and God through the history of philosophical and theological questions and their answers from Plato to the present day.

HUM 400 MRC Seminar **5 credits**
HUM 401 MRC Seminar **5 credits**
HUM 402 MRC Seminar **5 credits**
Required seminars, which include a research and writing project; focus on the development of grounds for a human ethic, interdisciplinary problems and transdisciplinary modes of thinking, on "valuing," and on integrating the academic and the "real world."



SCHOOL OF NURSING

School of Nursing

Patricia A. Ferris, Ph.D., Dean

Objectives

The aim of Seattle University's School of Nursing is to provide the educational preparation for the professional nurse who appreciates both the heritage and responsibilities in nursing and its role in the community; is able to apply to patient care the basic concepts and principles from the humanities, the natural and social sciences within the framework of the University philosophy and principles, and is able to assume nursing responsibility for the promotion, maintenance and restoration of health.

Accreditation

National League for Nursing
Washington State Board for Nursing

Organization

The School of Nursing is organized within the University structure under the direction of a dean, offering an undergraduate program in nursing.

Admission Requirements

All entering freshmen, transfer students from accredited institutions of higher learning and registered nurses 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. Chemistry is the required laboratory science for entering freshmen. Additional requirements for registered nurses are:

- Graduation from an approved school of professional nursing.
- Current nursing licensure in the State of Washington
- Report of complete physical examination within six months before entrance
- Recommendation from the Director of the Nursing Program and from previous employer

Degree Offered

Bachelor of Science in Nursing

Curriculum

The baccalaureate degree program is designed for high school graduates, transfer students and registered nurses who wish to complete requirements for the degree. The program is planned to provide the student with a foundation in the liberal arts and nursing, to stimulate students to assume responsibility for self-directed learning and professional development, and to provide a basis for graduate education and research.

The professional portion of the curriculum includes study of man with a variety of health problems requiring different modalities of care with a focus on the individual, the family and the community.

Clinical experience is provided through cooperating teaching units which include Children's Orthopedic Hospital and Medical Center; Group Health Cooperative Hospital and Clinics, the Mason Clinic, Northwest Hospital, Overlake Memorial Hospital, Providence Hospital, Seattle King County Health Department, Seattle King County Visiting Nurse Service, United States Public Health Service Hospital, Summit Inn, Swedish Hospital Medical Center, Veterans Administration Hospital and selected health agencies.

General Program Requirements

Students in the School of Nursing must satisfy core curriculum requirements of the University given on page 18 of this bulletin. For additional required sequences see the program of study which follows.

A cumulative academic grade point average of 2.50 or above from high school or another college or university is required for admission into the School of Nursing.

A student in the School of Nursing must have achieved a cumulative grade point average of 2.50 or above by the end of the sophomore year, and a grade of C or above in the Nursing courses, for approval to proceed into the upper division nursing courses. The academic and clinical performances of each nursing student are evaluated at the end of each year to determine progression in the program. Specific requirements for progression may be obtained from a faculty adviser.

Students are responsible for the expenses of the annual physical examination and health assessment, uniforms, and transportation costs to, from and while in cooperating teaching units. A current driver's license and car covered by insurance as prescribed by state law are recommended for all clinical courses. Professional liability insurance is recommended for clinical nursing courses. It is strongly recommended that students have adequate health insurance coverage.

Bachelor of Science in Nursing

Freshman year

Chemistry 101, 102	10 credits
English 100 and core option	10 credits
History core option	10 credits
Philosophy 110	5 credits
Social Science core options	10 credits

Sophomore year

Biology 200, 210, 220	15 credits
Nursing 205, 206, 300	15 credits
Philosophy 220	5 credits
Psychology or Education 322	5 credits
Theology core option	5 credits

Junior year

Nursing 312, 314, 316, 330, 332, 335, 337, 340, 341	45 credits

Senior year

Nursing 408, 409, 432, 433	25 credits
Philosophy core option	5 credits
Theology core option	5 credits
Electives	10 credits
Total	180 credits

Nursing Courses

N 205 **Basic Nursing I** **5 credits**
Introduction to scope of practice and nursing roles; focus on nursing process, people's needs as consumer of health services, concepts and skills related to comfort and safety; simulated laboratory practice.

N 206 **Basic Nursing II** **5 credits**
Theory and practice focused on concepts of anxiety, communications, immobility and nutrition, principles and skills related to pre- and post-operative care and oxygenation. Supervised practice in direct patient care.

N 300 **Pathophysiology** **5 credits**
Study of the functional changes of the body which accompany illness and form the basis for nursing intervention.

N 312 **Health Appraisal** **5 credits**
Demonstration and practice in basic skills to assess and describe state of health; growth and development framework used to understand physiological and behavioral assessment.

N 314 **Mental Health Concepts** **5 credits**
Behavioral science principles basic to assisting self and others to cope with the stresses of illness; promotes development of inherent capabilities of student and patient.

N 316 **Contemporary Nursing Issues** **5 credits**
Major legal, ethical and professional issues are studied in relation to concepts of power, authority, responsibility in present and emerging health care patterns. The nurse's role as a client advocate is examined.

N 330 **Medical-Surgical Nursing I** **4 credits**
Problems in various phases of illness; nursing process in assisting individuals to maintain-regain health or adapt to chronic illness; nursing care related to pulmonary, renal and gastro-intestinal problems.

N 332 **Medical-Surgical Nursing II** **4 credits**
Further development of the nursing process; nursing care needs related to neuro-sensory, endocrine, musculo-skeletal and cardiovascular problems.

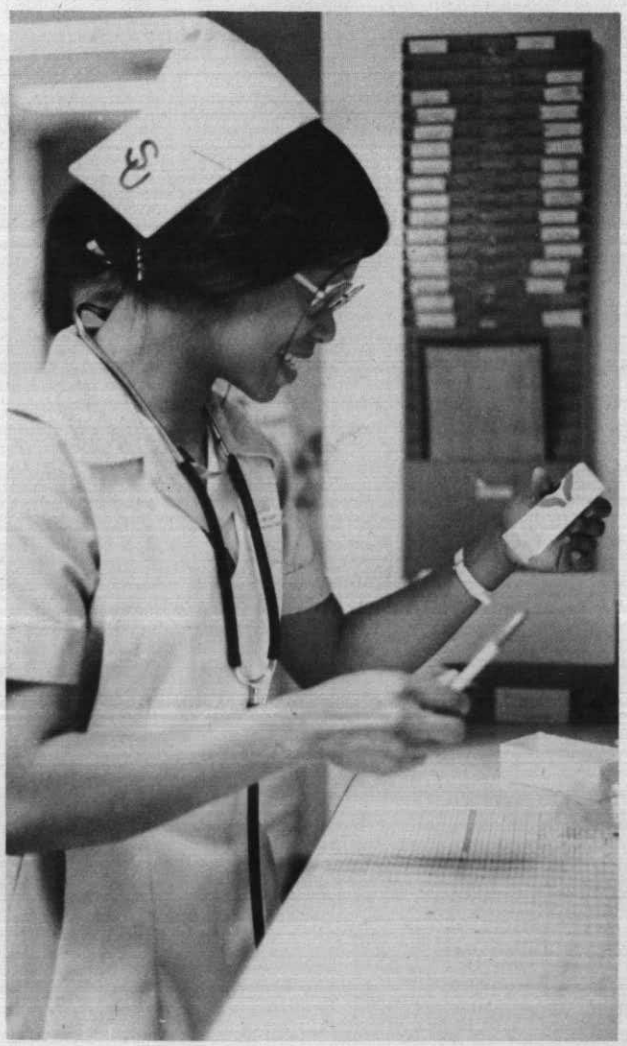
N 335 **Nursing Care of Children** **6 credits**
Experiences are aranged in a variety of settings, selected to provide opportunities to apply concepts and principles from theory courses.

N 337 **Nursing Care of Adults** **6 credits**
Experiences are arranged in a variety of settings, selected to provide opportunities to apply concepts and principles from theory courses.

N 340 **Maternal-Child Nursing: Family and Community** **4 credits**
Assessment of family dynamics and parental roles; family system and its use of community resources; current concepts in women's health care.

N 341 **Maternal-Child Nursing Practice: Family and Community** **6 credits**
Clinical practice to promote application of concepts from N 340; supervised experience with child-bearing families in a range of community settings.

N 408 **Psychiatric Nursing** **4 credits**
Psychodynamics, psychopathology and group interaction in psychiatric nursing care; use of behavioral science principles to promote mental health and provide care for individuals with emotional problems.



N 409 **Psychiatric Nursing Practice** **6 credits**
Clinical practice to promote application of concepts from N 408 in a manner that facilitates growth and constructive problem solving in client, family and student.

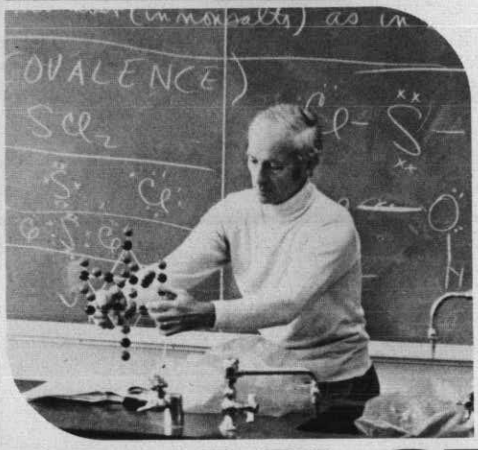
N 432 **Community/Advanced Nursing** **5 credits**
Interrelated health-illness problems examined in a framework of the decision making process; concepts of family and family systems are studied.

N 433 **Community/Advanced Nursing Practice** **10 credits**
Clinical practice to promote application of concepts, principles and processes from N 432; experiences in hospitals, clinics and other community agencies with individual clients, groups of clients/patients and families.

N 490 **Independent Study** **2-5 credits**
Prerequisite: Senior status and permission required.

N 492 **Special Topics** **1-5 credits**
N 493 **Special Topics** **1-5 credits**

N 499 **Independent Study** **2-5 credits**



SCHOOL OF SCIENCE & ENGINEERING

School of Science and Engineering

Gary A. Zimmerman, Ph.D., Dean

Objectives

The programs of the School of Science and Engineering seek to combine a liberal education with preparation for a professional career or graduate school in one of the sciences, mathematics or engineering. More generalized programs are offered for those students who wish a strong scientific or engineering background as part of a liberal education.

Accreditation

American Chemical Society

Engineering Council for Professional Development

American Medical Association

American Society of Clinical Pathologists

American Medical Record Assocation

Organization

The School of Science and Engineering offers programs in Allied Health Technology, Biology, Chemistry, Clinical Chemistry, General Science, Health Information, Mathematics, Physics, and in Civil, Electrical and Mechanical Engineering. Students interested in other scientific, technical, and health-related careers, such as medicine or dentistry, may enroll for suitable pre-professional programs prior to transfer to the appropriate professional training center.

Admission Requirements

Students entering the School must satisfy all entrance requirements for the University as outlined in the Admission section of this bulletin. In addition, some departments list further requirements for admission into certain major programs.

Degrees Offered

Bachelor of Arts with a major in Biology, Chemistry, Mathematics or Physics

Bachelor of Science with a major in Biology, Cytotechnology, Diagnostic Ultrasound Technology, Mathematics, Medical Technology, Nuclear Medical Technology or Physics.

Bachelor of Science in Biology, Chemistry, Clinical Chemistry, General Science, Health Information, Mathematics, or Physics.

Bachelor of Engineering

Bachelor of Civil Engineering

Bachelor of Electrical Engineering

Bachelor of Mechanical Engineering

Master of Transportation Engineering — See Graduate Bulletin

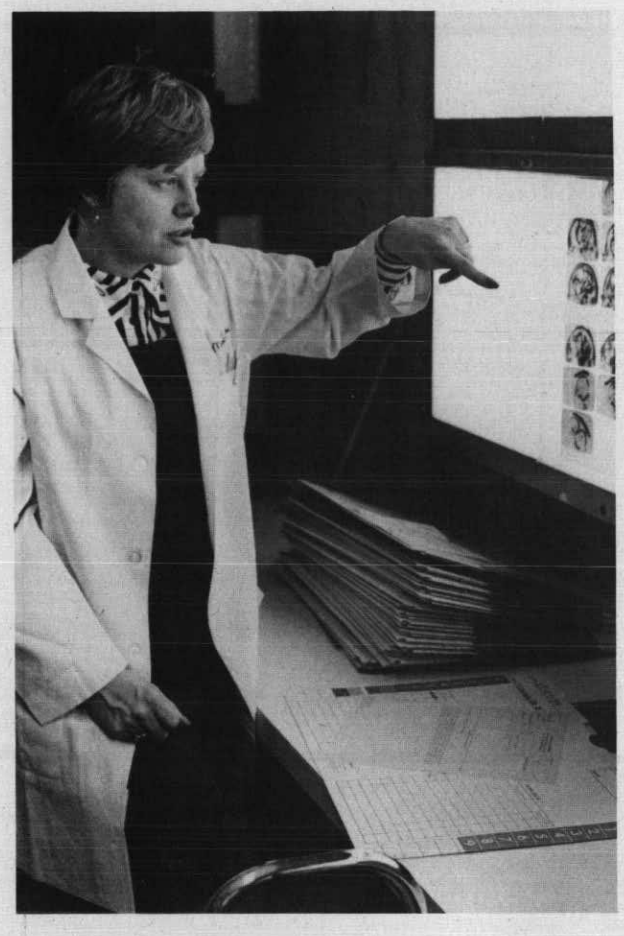
Co-Operative Work Study Program

Students in good standing may elect to enter the co-operative work study program. Such students will take a reduced academic schedule each quarter, but will attend school eleven months a year (all regular quarters plus summer quarter). The University will assist such students in finding suitable paid industrial employment on an approximately half-time basis. The employment is selected for its educational value as well as financial remuneration.

Students who enter the program at the earliest possible point (summer after the freshman year) and follow it regularly will graduate at the same time as if they had not taken the program, but will have the equivalent of over one year of industrial experience upon graduation.

General Program Requirements

Students seeking the Bachelor's degree in the School of Science and Engineering must complete 180 credits, including the University core requirements shown on page 18 of this bulletin. The history and social science core requirements have been modified for several of the more technical degrees, as described in the individual departmental sections of this bulletin. Students also must complete the specific departmental requirements for their particular degree.



Allied Health Technology

Joan P. Baker, RDMS, MSR, Program Director

Objectives

The Allied Health Technology program is designed to prepare students for professional careers as technologists in several medical laboratory disciplines or as laboratory assistants in biological research laboratories. Founded on a concentration in basic sciences, the program affords simultaneous opportunities for receiving a liberal arts education and a practical exposure to the medical laboratory environment. The Bachelor of Science degree is awarded, with a major in a specific allied health field. The student may concentrate studies in cytotechnology, medical technology, nuclear medicine technology, or diagnostic ultrasound technology.

Degree Offered

Bachelor of Science

General Program Requirements

Students in allied health technology must satisfy the core curriculum requirements of the University as given on page 18 of this bulletin for English, philosophy and theology and religious studies. Fifteen credits of history or social science are required.

Departmental Requirements

Bachelor of Science — Cytotechnology major — 45 credits of biology including 10 credits for Bl 165, 166, 167; 30 credits of chemistry, including Ch 114, 115, 116; Mt 134; and 45 credits of AH 310, 311, and 312. The cytotechnology internship may be taken after the sophomore year; registration as a cytotechnologist by the American Society for Clinical Pathology is possible upon completion of the internship and prior to completion of the degree.

Bachelor of Science — Medical Technology major—57 credits of biology including 10 credits from Bl 165, 166, 167, Bl 270, 271, 275, 280, 300 and 350; 30 credits in chemistry, including Ch 114, 115, 219, 470, 471, and 472; Mt 134, 15 credits in physics; and AH 410, 415. Professional certification requires one year of internship in an approved laboratory training program after completion of this degree. Certification of this type is required by most employers of medical technologists.

Bachelor of Science - Nuclear Medicine Technology major — 45 credits of AH 440, 441, 442, 447, 448, 449, 450, 451, 452, 453, 456, 457, 458, 459; 35 credits in physics and mathematics, including either Ph 107 or 202, Ph 375 or Ch 461, and Mt 135; and 25 credits each in biology and chemistry.

Bachelor of Science - Diagnostic Ultrasound Technology major — 40 credits in physics and mathematics, including either Ph 107 or 202, Mt 134, Mt 213 or 214, Ph 290, and Ph 350. 40 credits in biology, including 10 credits from Bl 165, 166, 167; Bl 190, and 445, and 10 credits in ultrasound technology, AH 470 and 471, are required. A one-year internship will be necessary for entry into professional employment as an ultrasound technologist. This is available as a postbaccalaureate curriculum of AH 475, 476, 477, 478, 480, 481, 482, 486, 487, and 488 for 46 credits.

Bachelor of Science in Allied Health Technology
Cytotechnology Major

Freshman year

Biology 160 series, Biology Elective	15 credits
English 100 and core option	10 credits
History/Social Science core options	10 credits
Mathematics 112, 134	10 credits

Sophomore year

Biology 275, 280, 330 (or 270, 271, elective)	15 credits
Chemistry 114, 115, 116	15 credits
Philosophy 110, 220	10 credits
Theology core option	5 credits

Junior year

Allied Health 310, 311, 312	45 credits

Senior year

Biology 300 and electives	15 credits
Chemistry 219, 235, 236	15 credits
History/Social Science core option	5 credits
Philosophy core option	5 credits
Theology core option	5 credits
Total	180 credits

Bachelor of Science in Allied Health Technology Diagnostic Ultrasound Technology Major

Freshman year

Biology 160 series, 190	15 credits
English 100 and core option	10 credits
History/Social Science core option	5 credits
Mathematics 112, 134, 213 or 214	15 credits

Sophomore year

Chemistry 101, 102	10 credits
Philosophy 110, 220, elective	15 credits
Physics 105, 106, 107	15 credits
Theology core option	5 credits

Junior year

Biology 200, 210, or 270, 271, 274, 300	20 credits
Chemistry 455	5 credits
Health Information 425, 426	6 credits
Psychology 100	5 credits
Electives	9 credits

Senior year

Allied Health 470, 471	10 credits
Biology 445	5 credits
History/Social Science core	5 credits
Physics 290, 350	8 credits
Theology core option	5 credits
Electives	12 credits
Total	180 credits

Post Baccalaureate Internship in Diagnostic Ultrasound

Allied Health 475, 476, 477, 478, 480, 481, 482, 486, 487, 488	46 credits

Bachelor of Science in Allied Health Technology Medical Technology Major

Freshman year

Biology 160 series, Biology elective	15 credits
Chemistry 114, 115	10 credits
English 100	5 credits
Mathematics 112, 134	10 credits
History/Social Science core option	5 credits

Sophomore year

Biology 200, 210 or 270, 271	10 credits
Chemistry 116	5 credits
Philosophy 110, 220	10 credits
Physics 105, 106, 107	15 credits
Theology core option	5 credits

Junior year

Allied Health 410, 415	10 credits
Biology 275, 300	10 credits
Chemistry 219, 235, 236, 455	20 credits
English core option	5 credits

Senior year

Biology 274, 280, 330	15 credits
Chemistry 470, 471, 472, 475	10 credits
History/Social Science core option	10 credits
Philosophy elective	5 credits
Theology core option	5 credits
Total	180 credits

Bachelor of Science in Allied Health Technology Nuclear Medical Technology Major

Freshman year

Biology 160 series, Biology elective	10 credits
English 100	5 credits
Mathematics 112, 134, 135	15 credits
Physics 105, 106, 107	15 credits

Sophomore year

Biology electives	10 credits
Chemistry 114, 115, 116	15 credits
Philosophy 110, 220 and elective	15 credits
Theology core option	5 credits

Junior year

Biology elective	5 credits
Chemistry 235, 236	10 credits
English core option	5 credits
History/Social Science core options	15 credits
Physics 375 (or Ch 461 elective)	5 credits
Theology core option	5 credits

Senior year

Allied Health 440, 441, 442	9 credits
Allied Health 447, 448, 449	3 credits
Allied Health 450, 451, 452, 453	26 credits
Allied Health 456, 457, 458, 459	7 credits
Total	180 credits

Allied Health Courses

AH 310 Cytotechnology Internship I — **5 credits**
AH 311 Cytotechnology Internship II — **5 credits**
AH 312 Cytotechnology Internship III — **5 credits**

AH 410 Clinical Hematology — **5 credits**
Automated and manual cell counting; cellular morphology; testing procedures related to red and white cell disorders. Prerequisite: permission.

AH 415 Fundamentals of Immunology — **5 credits**
Properties and occurrence of antigens and haptens; nature of antibodies, blood groups, and autoimmune response; transfusions; tumor specialties.

AH 440 Basic Science of Nuclear Medicine I — **5 credits**
AH 441 Basic Science of Nuclear Medicine II — **2 credits**
AH 442 Basic Science of Nuclear Medicine III — **2 credits**
I. Review of basic principles of radioactive decay, interaction of radiation with matter, radiation detection. Rectilinear and Anger-type imaging devices; collimaters, resolution, sensitivity, contrast and modulation transfer function. II. Radiopharmaceuticals and radiopharmacy: drugs, drug distribution, radionuclide production, radiopharmaceutical dosimetry. Radiation biology. III. Tracer methodology and non-imaging uses of radionuclides: in-vivo function studies, in-vitro tests. Prerequisites for I, II, III: permission. (Offered in sequence: I-fall; II-winter; III-spring.)

AH 447 Clinical Nuclear Medicine I 1 credit
AH 448 Clinical Nuclear Medicine II 1 credit
AH 449 Clinical Nuclear Medicine III 1 credit
Applications of nuclear medicine procedures in medical diagnosis. Relative role of in-vivo and in-vitro radionuclide studies in diagnostic process. Prerequisite: permission. (I-fall; II-winter; III-spring.)

AH 450 Applied Nuclear Medicine Technology I 5 credits
AH 451 Applied Nuclear Medicine Technology II 7 credits
AH 452 Applied Nuclear Medicine Technology III 7 credits
AH 453 Applied Nuclear Medicine Technology IV 7 credits
Practical experience in static organ imaging, dynamic radionuclide studies, in-vivo and in-vitro testing, hematologic studies, gastro-intestinal absorption, and radioassay procedures. Prerequisite: permission. (Offered in sequence: fall, winter, spring, summer.)

AH 456 Nuclear Medicine Seminar I 1 credit
AH 457 Nuclear Medicine Seminar II 2 credits
AH 458 Nuclear Medicine Seminar III 2 credits
AH 459 Nuclear Medicine Seminar IV 2 credits
Student and faculty discussions of topics of professional interest; critical examination of current literature. Prerequisite: permission. (Offered in sequence: fall, winter, spring, summer.)

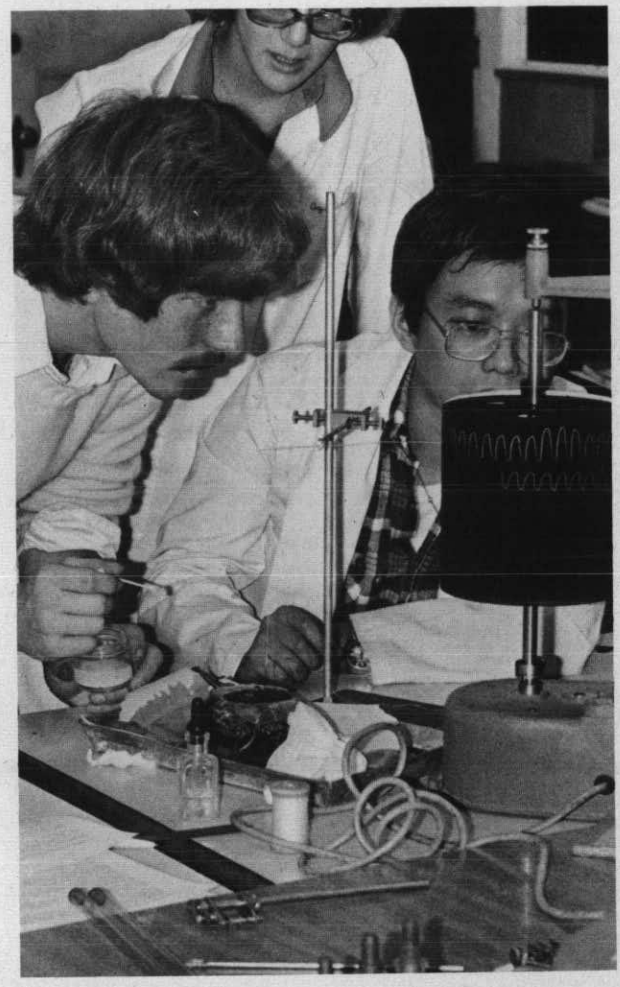
AH 470 Diagnostic Ultrasound I 5 credits
AH 471 Diagnostic Ultrasound II 5 credits
I. Review of acoustical physics; propagation of sound in human tissue; transducers; sound beams; modes of display. II. Basic echo systems; signal processing; applications to medical ultrasound; recording techniques; equipment calibration; Doppler systems. Prerequisites: I, Ph 350, permission; I for II. (I-winter, II-spring.)

AH 475 Basic Science of Ultrasound I 10 credits
AH 476 Basic Science of Ultrasound II 2 credits
AH 477 Basic Science of Ultrasound III 2 credits
Techniques of scanning; detailed cross-sectional anatomy of heart, abdomen, brain, pregnant uterus, male and female pelvis; pathological distortions of anatomy; ultrasound in patient management; and medical-ethics in ultrasound. Prerequisites: BI 445, Ph 350, AH 481 and permission. (I-fall; II-winter; III-spring.)

AH 478 Clinical Orientation to Ultrasound 2 credits
One day per week spent in hospital environment, learning patient care, practical medical ethics, observing ultrasound techniques and other diagnostic modalities. Prerequisite: permission.

AH 480 Clinical Experience in Ultrasound I 8 credits
AH 481 Clinical Experience in Ultrasound II 8 credits
AH 482 Clinical Experience in Ultrasound III 8 credits
Five 8-hour days per week in approved ultrasound department of hospital. Prerequisite: permission. (I-winter; II-spring; III-summer.)

AH 486 Ultrasound Seminar I 2 credits
AH 487 Ultrasound Seminar II 2 credits
AH 488 Ultrasound Seminar III 2 credits
Seminars to review cases performed by students. Seattle based students will meet one day per week. Students based outside of Seattle will return to campus for two days per month for seminars and review of work as evaluated by clinical instructor. Prerequisite: permission. (I-winter; II-spring; III-summer.)



Biology

Lewis E. Aldrich, Jr., Ph.D., Chairman

Objectives

The programs in the department are designed to provide a liberal education and to prepare a student for graduate studies or for professional work in basic and applied biology.

Degrees Offered

Bachelor of Arts
Bachelor of Science
Bachelor of Science in Biology

General Program Requirements

Students in biology must satisfy the core curriculum requirements of the University as given on page 18 of this bulletin for English, philosophy, and theology and religious studies. Core requirements for history and social science are as follows: for the Bachelor of Arts degree, 20 credits in history or social science, including Psychology 100; Bachelor of Science degree, 15 credits in history or social science; and Bachelor of Science in Biology degree, 15 credits in history or social science, including Psychology 100.

Departmental Requirements

Bachelor of Arts — 50 credits of biology which must include Bl 165, 166 and 167 with additional credits, which must include at least one credit of Seminar (three credits is the maximum that can be applied toward the degree), selected in consultation with the biology adviser; and 25 credits of chemistry. A year of physics and a course in calculus are recommended.

Bachelor of Science — 60 credits of biology which must include Bl 165, 166 and 167 and at least one seminar credit (three credits is the maximum that can be applied toward the degree); 30 credits of mathematics or science electives.

Bachelor of Science in Biology — 60 credits of biology which must include Bl 165, 166, and 167; at least 30 credits of biology courses at the 300-499 level; additional credits in consultation with the biology adviser, which must include at least one credit of Seminar (three credits is the maximum that can be applied toward the degree). Also required are 25 credits of chemistry; 15 credits of physics; reading knowledge of a modern language (equivalent to 106, as determined by examination); Psy 100 and Mt 112. Additional courses in biology, calculus, biochemistry and statistics are recommended. Students with 3 units of high school chemistry may elect to begin their chemistry sequence during the freshman year.

Teaching Major (School of Education) — Secondary: 45 credits in biology which must include Bl 165, 166 and 167 and 30 credits of approved electives. Elementary: 25 credits in biology which must include Bl 165, 166, 167, 275 and 370.

Undergraduate Minor — 30 credits of biology selected at direction of a biology adviser.

Bachelor of Arts

Freshman year
Biology 165, 166, 167 ..... 15 credits
English 100 and core option ..... 10 credits
Mathematics 112 ..... 5 credits
Philosophy 110, 220 ..... 10 credits
Psychology 100 ..... 5 credits
Electives ..... 5 credits

Sophomore year
Biology electives ..... 15 credits
Chemistry 114, 115, 116 ..... 15 credits
History or Social Science core options ..... 10 credits
Philosophy core option ..... 5 credits

Junior year
Biology electives ..... 10 credits
Chemistry 235, 236 ..... 10 credits
Social Science or History core option ..... 5 credits
Theology core options ..... 10 credits
Electives ..... 10 credits

Senior year
Biology electives ..... 10 credits
Electives ..... 35 credits

Total . . . . 180 credits

Bachelor of Science

Freshman year
Biology 165, 166, 167 ..... 15 credits
English 100 and core option ..... 10 credits
Philosophy 110, 220 ..... 10 credits
Mathematics or science electives ..... 10 credits

Sophomore year
Biology electives ..... 15 credits
History or Social Science core options ..... 15 credits
Science or mathematics electives ..... 10 credits
Philosophy elective ..... 5 credits

Junior year
Biology electives ..... 15 credits
Science or mathematics electives ..... 10 credits
Theology core options ..... 10 credits
Electives ..... 10 credits

Senior year
Biology electives ..... 15 credits
Electives ..... 30 credits

Total . . . . 180 credits

Bachelor of Science in Biology

Freshman year
Biology 165, 166, 167 ..... 15 credits
English 100 and core option ..... 10 credits
Mathematics 112 ..... 5 credits
Modern Language 105, 106 ..... 10 credits
Electives ..... 5 credits

Sophomore year
Biology electives ..... 15 credits
Chemistry 114, 115, 116 ..... 15 credits
History or Social Science core options ..... 10 credits
Psychology 100 ..... 5 credits

Junior year
Biology electives ..... 15 credits
Chemistry 235, 236 ..... 10 credits
Philosophy 110, 220 and core option ..... 15 credits
Theology core option ..... 5 credits

Senior year
Biology electives ..... 15 credits
Physics 105, 106, 107 ..... 15 credits
Theology core option ..... 5 credits
Electives ..... 10 credits

Total . . . . 180 credits

Biology Courses

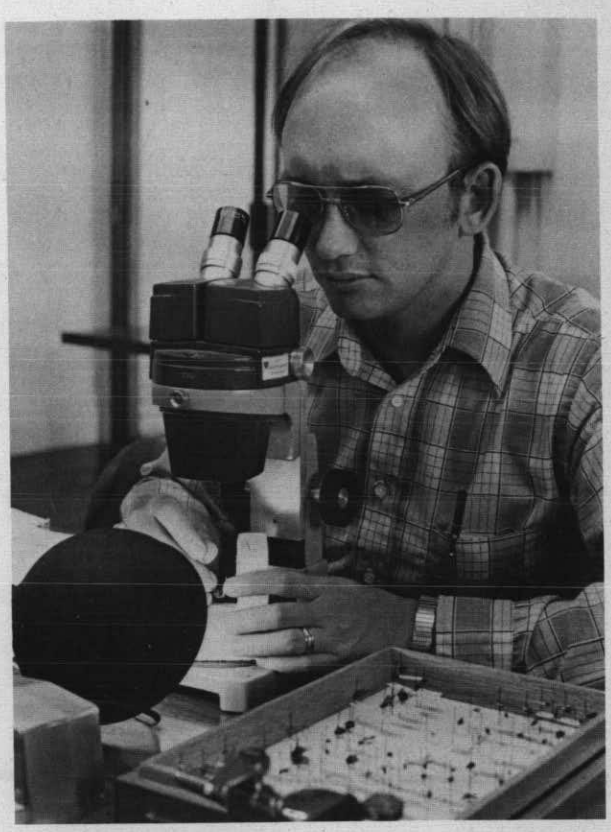
BI 101 Life Science **5 credits**
Important areas of biology, beginning at the cellular level and culminating with a consideration of interactions and changes in natural populations. Five lecture hours per week. (spring)

BI 165 General Biology I **5 credits**
BI 166 General Biology II **5 credits**
BI 167 General Biology III **5 credits**
Survey of the biological world, concepts and principles, diversity, unity and continuity of life, integration of life processes, biological behavior, population and community, human biology. Eight hours of lectures, demonstrations, laboratories, and individual projects per week. (I-fall, II-winter, III-spring)

BI 190 Principles of Physical Anthropology **5 credits**
Evidence for primate evolution from the fossil record and from the morphological, physiological, genetic and behavioral variability of living primates. Two 3 hour lecture-laboratory sessions per week. (fall)

BI 200 Anatomy **5 credits**
Structure of the human organism. Credits not applicable for biology major. Three lecture and four laboratory hours per week. (fall)

BI 205 Biophysical Principles **5 credits**
Inter-relationships 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. (fall, winter)



BI 210 Physiology **5 credits**
Functions of the human organism. Three lecture and four laboratory hours per week. Credits not applicable for biology major. Prerequisite: BI 200. (winter)

BI 220 Microbiology **5 credits**
Introduction to medical microbiology. Three lecture and four laboratory hours per week. Credits not applicable for biology major. (spring)

BI 231 Invertebrate Zoology I **5 credits**
BI 232 Invertebrate Zoology II **5 credits**
I. Integrated study of the anatomy, morphology, taxonomy, natural history and ecology of invertebrate phyla from protozoa through the pseudocoelomate minor phyla. II. The coelomate phyla. Three lecture and four laboratory hours per week. Prerequisite: BI 165, 166; 231 for 232. (I-fall, II-winter)

BI 241 Vertebrate Zoology **5 credits**
Structure, physiology, ecology and behavior of Hemichordata and Chordata. Three lecture and four laboratory hours per week. Prerequisite: BI 165, 166, 167. (fall, 1979)

BI 251 Plant Morphology **5 credits**
Study of plant form, structure and development. Three lecture and four laboratory hours per week. Prerequisite: BI 165, 166. (spring, 1980)

BI 252 Taxonomy of Flowering Plants **5 credits**
Native flora as an introduction to taxonomy, involving the principal orders and families of flowerplants. Three lecture and four laboratory hours per week. Prerequisite: BI 165, 166. (spring, 1979)

BI 270 **Human Structure and Function I** **5 credits**
BI 271 **Human Structure and Function II** **5 credits**
I. Integrated study of microscopic and gross structure and the functions of the human organism; basic tissues, skeletal, muscular, nervous, circulatory and respiratory systems. II. Digestion and metabolism, the excretory, endocrine and reproductive systems. Introduction to regional anatomy. Prerequisites: BI 165, 166, 167, Ch 101, 102 for 270; 270 for 271. (I-fall, II-winter)

BI 274 **Growth and Development** **5 credits**
Physical and biological development of the whole individual from birth through old age, including neonatal adaptation, nutrition, development milestones in childhood, and the problem of senescence. (spring)

BI 275 **General Physiology** **5 credits**
Chemical and physical processes inherent in living organisms. Three lecture and four laboratory hours per week. Prerequisite: BI 165, 166, 167, or permission. (fall)

BI 280 **Cell Physiology** **5 credits**
Fundamental life processes in plant and animal cells. Three lecture and four laboratory hours per week. Prerequisite: BI 275. (winter)

BI 291 **Special Topics in Biology** **1-5 credits**
BI 292 **Special Topics in Biology** **1-5 credits**
BI 293 **Special Topics in Biology** **1-5 credits**
Directed reading and/or lectures and/or laboratories on topics at the lower division level. Prerequisite: Permission of instructor. (fall, winter, spring)

BI 300 **Microbiology** **5 credits**
Morphology, physiology and distribution of microorganisms. Three lecture and four laboratory hours per week. Prerequisite: Permission of instructor. (winter)

BI 310 **Comparative Vertebrate Embryology** **5 credits**
Early development of the frog and chick with consideration of the early development of the human. Three lecture and four laboratory hours per week. Prerequisite: BI 165, 166, 167. (fall)

BI 315 **Bioethics** **5 credits**
Indepth look at the problems created by a vast and highly complex technological society. Directed toward questions for which solutions are currently being sought. Lectures, discussions and directed readings. (summer)

BI 321 **Vertebrate Natural History** **5 credits**
Ecology, behavior, life history and taxonomy of vertebrate animals, with emphasis on those in the Pacific Northwest. Three lecture and four laboratory hours per week. Prerequisite: BI 165, 166, 167. (spring)

BI 326 **Comparative Anatomy of the Vertebrates I** **5 credits**
BI 327 **Comparative Anatomy of the Vertebrates II** **5 credits**
I. Comparative study of the skin, skeletal system and muscular systems of selected vertebrates. II. Comparative study of the digestive, respiratory, excretory and reproductive systems, circulatory and nervous systems and sense organs of selected vertebrates. Three lecture and four laboratory hours per week. Prerequisite: BI 165, 166, 167. (I-winter, II-spring)

BI 330 **Comparative Vertebrate Histology** **5 credits**
Study of fundamental body tissues. Three lecture and four laboratory hours per week. Prerequsite: Permission of instructor. (spring)

BI 340 **Microtechnique** **3 credits**
Preparation of slides of animal tissue by the paraffin method; techniques of staining procedures. One lecture and four laboratory hours per week. Prerequisite: BI 330 or concurrently.

BI 350 **Genetics** **3 credits**
Classical and molecular principles of the transfer of hereditary information. Three lecture hours per week. Prerequisite: One year of biology. (winter)

BI 351 **Genetics Laboratory** **2 credits**
Experience in genetic experimentation. Four laboratory hours per week. Prerequisite: BI 350 or taken concurrently. (winter)

BI 352 **Biophysical Chemistry** **5 credits**
Introduction to physical chemistry. Principles of thermodynamics, kinetics, molecular structure and radioactivity applied to biology. Four lecture and three laboratory hours per week. Prerequisite: Ch 219 or permission.

BI 360 **Parasitology** **5 credits**
Study of parasitic protozoa, helminths and arthropods. Three lecture and four laboratory hours per week. Prerequisite: BI 165, 166, 167; Recommended: BI 232. (spring, 1979)

BI 365 **Introduction to Oceanography** **5 credits**
A nontechnical course designed to give a broad general background, and to demonstrate the relationship between this field and others. Prerequisite: Sophomore standing. (fall, 1978)

BI 370 **Population Biology: Ecology** **5 credits**
The interrelationships of life forms with their physical and biotic environments. Five lectures per week. Prerequisite: One year of biology. (winter)

BI 371 **Field Ecology** **2 credits**
Field studies including techniques used in ecological research and analysis. One lecture per week and three weekend field trips. Prerequisite: BI 165, 166, 167 and permission. (spring, 1980)

BI 375 **Marine Biology** **5 credits**
Study of the marine environment and the animals and plants inhabiting it. Three lecture and four laboratory hours per week. Prerequisites: BI 232. (spring, 1980)

BI 430 **Endocrinology** **4 credits**
Structure and function of the glands of internal secretion of vertebrates. Prerequisite: Advanced standing in biology and Ch 236. (spring, 1980)

BI 435 **Comparative Neurology** **4 credits**
Study of the phylogenetic history of the central nervous systems. Prerequisite: BI 310 or 326.

BI 440 **Neurobiology** **5 credits**
Pathways of the vertebrate nervous system, gross and microscopic study of the human brain and spinal cord. Three lecture and four laboratory hours per week. Prerequisites: BI 200, 210 or 270, 271 or 310 or 326. Permission. (spring, 1979)

BI 445 **Human Cross Sectional Anatomy** **5 credits**
Survey of cross sectional anatomy with emphasis on organs of body amenable to ultrasound diagnostic techniques. Prerequisites: BI 165, 166, 167, and BI 270 or equivalent. (spring, 1980)

BI 455 **Biochemistry** **5 credits**
Composition and metabolism of carbohydrates, lipids, proteins, enzymes and body fluids. Four lecture and three laboratory hours per week. Prerequisite: Ch 236. (spring)

BI 460 **Limnology** **5 credits**
Study of freshwater systems and the plants and animals inhabiting them, with emphasis on the invertebrate animals. Three lecture and four laboratory hours per week. Prerequisite: BI 165, 166; recommended: BI 470. (fall, 1978)

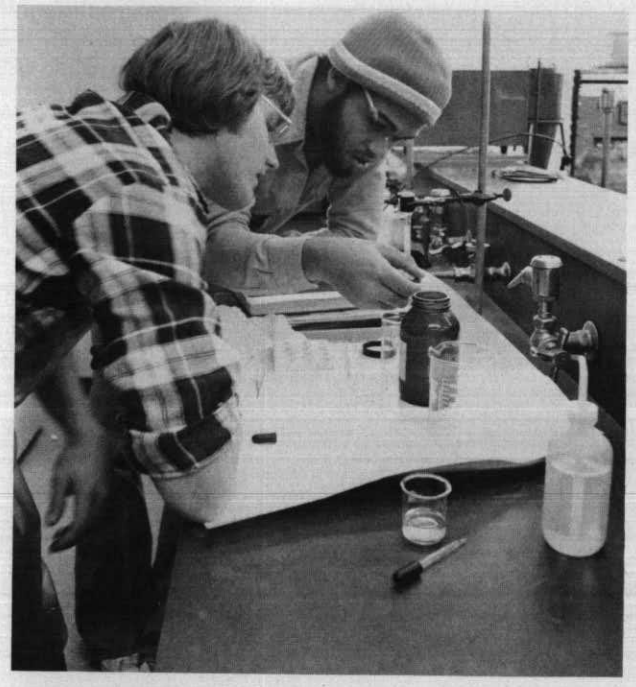
BI 465 **Population Biology: Evolution** **5 credits**
Causes and mechanisms of genetic adaptation of organisms. Five lectures per week. Prerequisite: BI 350 or permission. (spring)

BI 470 **Entomology** **5 credits**
Structure, function, classification, ecology, behavior and economic importance of insects. Three lecture and four laboratory hours per week. Prerequisite: BI 171. (fall, 1979)

BI 491 **Special Topics in Biology** **1-5 credits**
BI 492 **Special Topics in Biology** **1-5 credits**
BI 493 **Special Topics in Biology** **1-5 credits**
Directed reading and/or lectures and/or laboratories on topics at the advanced undergraduate level. Prerequisite: Permission. (fall, winter, spring)

BI 494 **Seminar** **1 credit**
BI 495 **Seminar** **1 credit**
BI 496 **Seminar** **1 credit**
Problems in modern biology. Prerequisite: Junior or senior standing. (fall, winter, spring)

BI 497 **Research** **1-5 credits**
BI 498 **Research** **1-5 credits**
BI 499 **Research** **1-5 credits**
Literature and laboratory investigation of a basic research problem. Preparation of a written report. Prerequisite: Permission. (fall, winter, spring)



Chemistry

David L. Thorsell, Ph.D., Chairman

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 Bachelor of Science in Chemistry degree program is recommended to students who wish to prepare themselves for graduate studies in chemistry. By completion of 11 additional credits in chemistry, beyond the minimum requirements for this degree, the student may receive certification of the degree by the Committee on Professional Training of the American Chemical Society.

The Clinical Chemistry degree program is suited to those students interested in a career in the rapidly developing field of clinical chemistry. This degree may also provide adequate preparation for graduate studies in clinical chemistry, biochemistry, or (with additional biology) medicine or dentistry.

The Bachelor of Arts degree is recommended for those desiring a solid foundation in chemistry but with greater freedom of choice for elective courses from programs such as education, business, engineering or other fields within the University.

Degrees Offered

Bachelor of Arts
Bachelor of Science in Chemistry
Bachelor of Science in Clinical Chemistry

General Program Requirements

Students in chemistry must satisfy the core requirements of the University given on page 18 of this Bulletin for English, philosophy and theology and religious studies. Core requirements for history and social science are as follows: Bachelor of Arts degree, 10 credits in history and 10 credits in social science; Bachelor of Science in Chemistry degree, 10 credits in history or social science; and Bachelor of Science in Clinical Chemistry, 10 credits in history or social science.

Departmental Requirements

Bachelor of Arts—45 credits of chemistry which must include Ch 114, 115, 116, 219, 235, 236 and either 352 or 361-364, plus electives from the following: Ch 237, 238, 291, 292, 293, 360, 362, 364, 415, 436, 455, 461, 491, 492, 493, 497, 498 and 499. Fifteen credits of mathematics in sequence including calculus.

Bachelor of Science in Chemistry—60 credits in chemistry which must include Ch 114, 115, 116, 219, 235, 236, 237, 326, 360, 361, 362, 363, 364, one year of calculus (Mt 134, 135, 136), computer programming, and one year of calculus-based physics. A student is eligible for certification of the degree by the American Chemical Society if Ch 415 is taken and nine additional credits of approved advanced work in chemistry, physics or mathematics. This certification is recommended for students planning graduate work. The following courses are strongly recommended as electives: Ph 290, Mt 233 and Mt 234.

Bachelor of Science in Clinical Chemistry—65 credits in chemistry which must include Ch 114, 115, 116, 219, 235, 236, 361, 362, 363, 364, 455, 461, 470, 471, 472, 475, 476, 481, 482, 483; 18 credits in mathematics which must include two quarters of calculus and either Mt 213 or Mt 214, one year of introductory physics and Ph 290. Recommended electives: Ch 237, 238, 360; Bl 280, 300, 330 and 350.

Teaching major (School of Education) — Secondary: 45 hours of chemistry are required which must include Ch 114, 115, 116, 219, 235, 236 and either 352 or 361-364. Additional courses in physics (Ph 105, 106, 107) a year of college mathematics and courses in biology are highly recommended.

Bachelor of Arts

Freshman year

Chemistry 114, 115, 116	15 credits
English 100 and core option	10 credits
Philosophy 110	5 credits
Electives	15 credits

Sophomore year

Chemistry 219, 235, 236	15 credits
Mathematics 112, 134, 135	15 credits
Philosophy 220 and core option	10 credits
Theology core option	5 credits

Junior year

Chemistry 352 and elective	10 credits
History core options	10 credits
Physics 105, 106, 107	15 credits
Social Science core option	5 credits
Theology core option	5 credits

Senior year

Chemistry elective	5 credits
Social Science core option	5 credits
Electives	35 credits
Total	180 credits

Bachelor of Science in Chemistry

Freshman year
Chemistry 114, 115, 116 ..... 15 credits
English 100 and core option ..... 10 credits
Mathematics 134, 135, 136 ..... 15 credits
Physics 200 ..... 5 credits

Sophomore year
Chemistry 235, 236, 237 ..... 13 credits
Mathematics 213 or 214 ..... 5 credits
Philosophy 110 ..... 5 credits
Physics 201, 202 ..... 10 credits
Electives ..... 12 credits

Junior year
Chemistry 219, 360, 361, 362, 363, 364 ..... 18 credits
History or Social Science ..... 5 credits
Philosophy 220 ..... 5 credits
Theology core options ..... 10 credits
Electives ..... 7 credits

Senior year
Chemistry 326 ..... 5 credits
History or Social Science ..... 5 credits
Philosophy core option ..... 5 credits
Chemistry electives ..... 9 credits
Electives ..... 21 credits

Total . . . . 180 credits

Bachelor of Science in Clinical Chemistry

Freshman year
Biology ..... 5 credits
Chemistry 114, 115, 116 ..... 15 credits
English 100 and core option ..... 10 credits
Mathematics 134, 135, 136 ..... 15 credits

Sophomore year
Chemistry 235, 236, 455 ..... 15 credits
Mathematics 213 or 214 ..... 5 credits
Philosophy 110, 220 ..... 10 credits
Physics 105, 106, 107 ..... 15 credits

Junior year
Biology 270, 271 ..... 10 credits
Chemistry 219, 361, 362, 363, 364 ..... 15 credits
History or Social Science elective ..... 5 credits
Physics 290 ..... 5 credits
Theology core options ..... 10 credits

Senior year
Chemistry 461, 470, 471, 472, 475, 476, 481, 482, 483 ..... 20 credits
History or Social Science elective ..... 10 credits
Philosophy elective ..... 5 credits
Electives ..... 10 credits

Total . . . . 180 credits

Chemistry Courses

Ch 100 Science, Technology and the Quality of Life **5 credits**
Study of selected scientific information and the opportunities and responsibilities for its generation and application; scientific information and technologies that demonstrate the need for public involvement in the conduct of science and technology. (fall, spring, summer)

Ch 101 Introductory General Chemistry **5 credits**
Survey of inorganic and some organic chemistry treating the basic principles and descriptive material relevant to the health sciences. Four lecture and three laboratory hours per week. (fall)

Ch 102 Introductory Organic and Biochemistry **5 credits**
Continuation of 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)

Ch 110 Fundamentals of Chemistry **5 credits**
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 114. (fall)

Ch 114 General Inorganic Chemistry I **5 credits**
Ch 115 General Inorganic Chemistry II **5 credits**
Ch 116 General Inorganic Chemistry III **5 credits**
I. Atomic structure, weight relationships, states of matter, solutions. II. Kinetics, chemical equilibrium, electrochemistry, hydrogen, oxygen, water and the nontransition metals. III. Transition metals, carbon compounds and an introduction to the principles of reactions in ionized systems. The laboratory covers

elementary qualitative analysis. Four lecture and three laboratory hours per week. Prerequisites: High School chemistry or permission for 114; 114 for laboratory hours per week for 116. Prerequisites: High School chemistry or permission for 114; 114 for 115; 115 for 116. (114, fall, winter; 115, winter, spring; 116, spring)

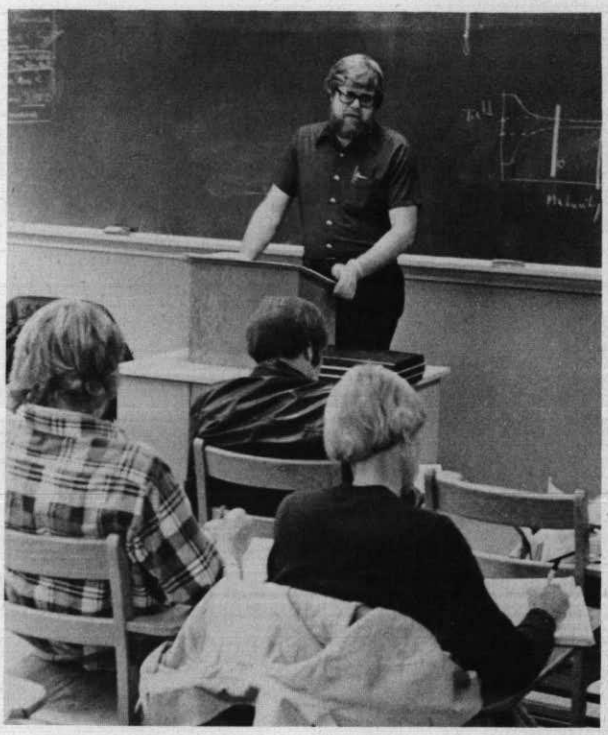
Ch 219 Quantitative Analysis **5 credits**
Theory, methods and techniques of gravimetric and volumetric procedures in quantitative analysis. Three lecture and six laboratory hours per week. Prerequisite: Ch 116. (fall)

Ch 235 Organic Chemistry I **5 credits**
Structural theory; functional groups; nomenclature; properties and reactions of organic compounds; stereochemistry; reaction mechanisms; theory and practice of laboratory techniques. Four lecture and three laboratory hours per week. Prerequisite: Ch 115. (fall, summer)

Ch 236 Organic Chemistry II **5 credits**
Properties, reactions and applications of organic compounds with emphasis on those of biochemical interest; continuation of organic synthesis; laboratory work in functional group reactions, synthesis and thermodynamic and kinetic investigations. Four lecture and three laboratory hours per week. Prerequisite: Ch 235. (winter, summer)

Ch 237 Organic Chemistry III **3 credits**
Synthesis of organic compounds; ultraviolet, visible, infra-red and nuclear magnetic resonance spectra; laboratory work in problem-oriented investigations; practical applications of spectroscopy in laboratory work. Two lecture and three laboratory hours per week. Prerequisite: Ch 236. (spring)

Ch 238 Qualitative Organic Analysis **3 credits**
Methods of identification of organic compounds through preparation of derivatives; and use of modern spectroscopic methods. Six laboratory hours per week, plus discussion of principles. Prerequisite: Ch 236. (spring)



Ch 291 Special Topics **1-5 credits**
Ch 292 Special Topics **1-5 credits**
Ch 293 Special Topics **1-5 credits**
Directed reading and/or lectures at a lower division level. Prerequisite: Permission of instructor.

Ch 326 Instrumental Analysis **5 credits**
Theory and techniques of instrumental methods representative of spectrophotometric electroanalytical and chromatographic techniques. Two four-hour laboratory periods including discussion of principles. Prerequisite: One year of physical chemistry or permission.

Ch 352 Biophysical Chemistry **5 credits**
Introduction to physical chemistry. Principles of thermodynamics, kinetics, molecular structure and radioactivity applied to biology. Four lecture and three laboratory hours per week. Prerequisite: Ch 219 or permission of instructor.

Ch 360 Physical Chemistry I **3 credits**
Ch 361 Physical Chemistry II **3 credits**
Ch 362 Physical Chemistry III **3 credits**
I. Quantum chemistry, spectroscopy, photochemistry. II. Gases, thermodynamics, changes of state, solutions. III. Chemical equilibrium, electrochemistry, kinetic molecular theory, reaction kinetics. Three lectures per week. I may be taken either before or after II and III. Prerequisites: Ch 116, Mt 135 and one year of physics for 360 and 361; 361 for 362. (I-fall, II-winter, III-spring)

Ch 363 Physical Chemistry Laboratory I **2 credits**
Ch 364 Physical Chemistry Laboratory II **2 credits**
Quantitative measurements of physical chemical phenomena, detailed data analysis, evaluation. Four laboratory hours per week. Prerequisites: Ch 219 for 363; 363 for 364. Ch 361 is a pre- or co-requisite for 363; Ch 362 is a pre- or co-requisite for 364.

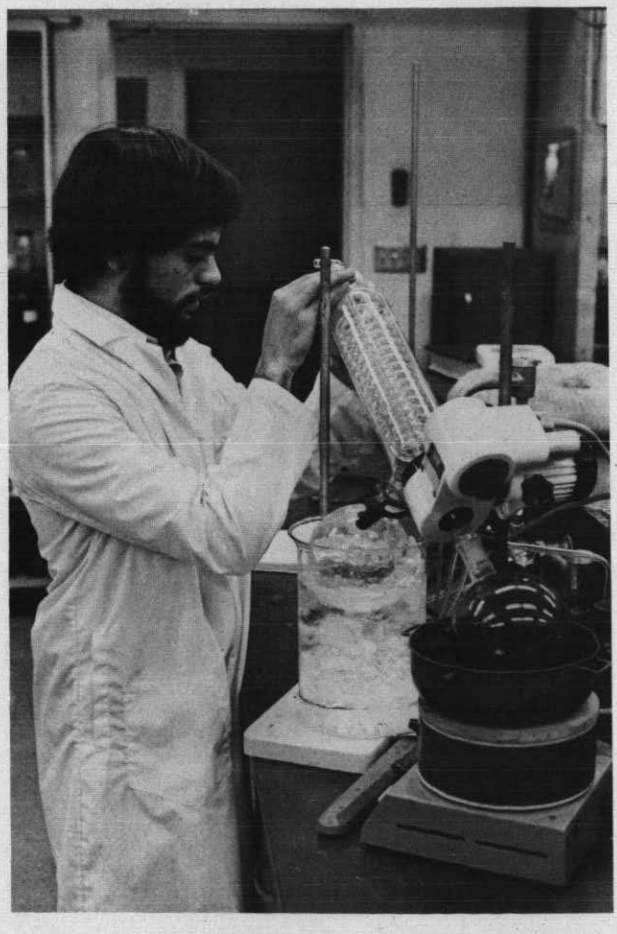
Ch 415 Advanced Inorganic Chemistry 3 credits
Advanced topics in inorganic chemistry with particular attention to bonding, thermodynamics, spectral and magnetic properties of the transition metals and their compounds. Prerequisites: Ch 360 and 361 or permission.

Ch 436 Advanced Organic Chemistry 3 credits
Spectrometric identification of organic compounds; mass spectrometry; nuclear magnetic resonance; infrared; ultraviolet and visible; thermodynamic variables and kinetic relationships. Directed reading and/or lectures. Prerequisite: One year of physical chemistry or permission.

Ch 455 Biochemistry 5 credits
Composition and metabolism of carbohydrates, lipids, proteins, enzymes and body fluids. Four lecture and three laboratory hours per week. Prerequisite: Ch 236 (spring)

Ch 460 Advanced Physical Chemistry 3 credits
Quantum chemistry, vibrational and rotational energies, absorption and emission of radiation, molecular symmetry, group theory, electronic spectra. Prerequisite: One year of physical chemistry.

Ch 461 Radiochemistry 3 credits
Theory of radioactivity, use of radioisotopes in studying chemical reactions and structure. Two lecture and four laboratory hours per week. Prerequisite: One year of physical chemistry or permission. (fall)



Ch 470 Clinical Chemistry I 3 credits
Ch 471 Clinical Chemistry II 3 credits
Ch 472 Clinical Chemistry III 3 credits
I. Theory and techniques of spectrophotometry, atomic absorption spectroscopy, flame photometry, fluorimetry and infrared analysis; electrophoretic techniques and densitometry; specific ion electrodes; automated analysis in clinical laboratory use. II. Critical comparison of analytical methodologies for carbohydrates, lipids, electrolytes, enzymes, hemoglobins and porphyrins; emphasis on biosynthesis, metabolism, analytical methods of importance, normal ranges, and pathological conditions leading to abnormalities. Statistics and normal values. III. Toxicology, steroids, catecholamines, gas chromatographic and radioimmunoassay techniques, renal and hepatic function assessment. Two lectures per week. Prerequisites: Ch 362, 364 or permission. (Offered in sequence: fall, winter, spring)

Ch 475 Clinical Chemistry Laboratory I 1 credit
Ch 476 Clinical Chemistry Laboratory II 1 credit
Practical experience in instrumental techniques and analytical methodologies of importance to the clinical chemist, including colorimetry, atomic absorption, gas chromatography, infrared, enzymatic assays and statistical treatment of data. Three laboratory hours per week. Prerequisite: Simultaneous enrollment in Ch 470 or Ch 471. (Offered in sequence: fall, winter)

Ch 481 Clinical Practice 2 credits
Ch 482 Clinical Practice 2 credits
Ch 483 Clinical Practice 2 credits
Practical experience in approved hospital clinical laboratory. Six laboratory hours per week. Prerequisite: Permission.

Ch 491 Special Topics 1-5 credits
Ch 492 Special Topics 1-5 credits
Ch 493 Special Topics 1-5 credits
Directed reading and/or lectures at an advanced level. Prerequisite: Permission.

Ch 497 Undergraduate Research 2 credits
Ch 498 Undergraduate Reseach 2 credits
Ch 499 Undergraduate Research 2 credits
Literature and laboratory investigation of a basic research problem. Six laboratory hours per week. Prerequisite: Permission.

Civil Engineering

Richard T. Schwaegler, Ph.D., Chairman

Objectives

The principal objectives of the Civil Engineering department are to provide trained engineers to work in the various areas of the civil engineering profession and to provide a firm foundation for graduate study.

To accomplish these ends, analysis and design courses in the fields of hydraulic, structural, transportation and sanitary 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.

Degrees Offered

Bachelor of Civil Engineering
Bachelor of Engineering

General Program Requirements

Students in Civil Engineering must satisfy the core curriculum requirements of the University as given on page 18 of this Bulletin for English, philosophy and theology and religious studies. Ten credits of humanities electives satisfy the core requirements in history and social science.

Departmental Requirements

Bachelor of Civil Engineering — 65 credits in civil engineering which must include ECL 208, 211, 321, 323, 331, 335, 337, 351, 353, 371, 402, 403, 492, 496, 497, and 498. Also required are Mt 134, 135, 136, 233, and 234; EML 105, 113, and 281; Ph 200, 201; and 10 credits of additional electives in engineering or science, as approved by an adviser. With approval, qualified students may substitute equivalent or more advanced courses for those listed.

Bachelor of Engineering — 55 credits in engineering, 25 credits in mathematics, and at least 10 credits in physics, chemistry, or biology. Not intended to be an entry-level degree into the engineering profession.

Bachelor of Civil Engineering

Freshman year

English 100 and core option	10 credits
Mathematics 134, 135, 136	15 credits
Mechanical Engineering 105, 113	10 credits
Philosophy 110	5 credits
Physics 200	5 credits

Sophomore year

Chemistry 114	5 credits
Civil Engineering 208, 211	10 credits
Engineering or Science Elective	5 credits
Mathematics 233, 234	10 credits
Mechanical Engineering 281	5 credits
Philosophy 220	5 credits
Physics 201	5 credits

Junior year

Civil Engineering 321, 323, 331, 335, 337, 351, 353, 371	31 credits
Philosophy elective	5 credits
Theology electives	10 credits

Senior year

Civil Engineering 402, 403, 492, 496, 497, 498 and electives	25-35 credits
Engineering or Science electives	0-10 credits
Humanities elective	10 credits
Total	180 credits

Civil Engineering Courses

ECL 200 Cooperative Work Study Assignment — **0 credits**
Field experience in an approved job assignment in industry or government. The assignment will be selected for its value in advancing the professional education to the student. May be taken four times.

ECL 208 Man and the Environment I — **5 credits**

ECL 209 Man and the Environment II — **5 credits**
Role of technology in the deterioration of environment and its restoration. I. Introduction to ecology, population, agriculture, pesticides, fertilizers, water pollution. II. Generation, use, conservation of energy. Air pollution, solid waste and recycling, noise. (I. winter, II. spring)

ECL 211 Engineering Measurements — **5 credits**
Engineering measurements as applied to civil engineering. Planning for surveys. Introduction to photogrammetry. Public Land and State Plane Coordinate Systems. Prerequisite: Sophomore standing. Four lecture and one laboratory period per week. (spring)

ECL 291 Special Topics **1-5 credits**
ECL 292 Special Topics **1-5 credits**
ECL 293 Special Topics **1-5 credits**

ECL 300 Cooperative Work Study Assignment **0 credits**
Field experience in an approved job assignment in industry or government. The assignment will be selected for its value in advancing the professional education of the student. May be taken four times.

ECL 321 Strength of Materials I **5 credits**
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. Five lecture and one laboratory period per week. Prerequisite: ME 113, Ph 200. (fall)

ECL 323 Strength of Materials II **5 credits**
Continuation of the mechanics of solid deformable bodies. Beam topics, stability of columns, combined stresses and strains, fatigue and energy relationships. Five lecture and one laboratory period per week. Prerequisite: CE 321. (winter)

ECL 331 Fluid Mechanics **5 credits**
Fluid static and dynamics. Topics include fluid properties, continuity equation, Euler's equation; laminar and turbulent flow regimes. Prerequisites: ME 281, Mt 135. (fall)

ECL 335 Applied Hydraulics **3 credits**
Weekly student projects in the field of incompressible flow; pump design, hydrographic studies, graphical analysis of overflow or spillway design, model studies, open channel flow. Prerequisite: CE 331. (winter)

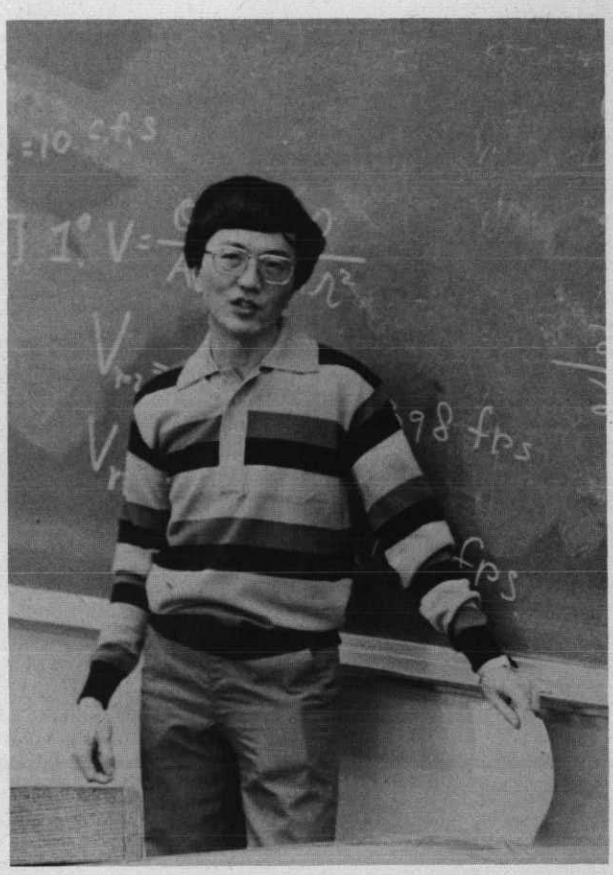
ECL 337 Fluids Laboratory **2 credits**
Experimental calibration of various flow meters, loss coefficients, and pipe friction factors. Experimental verification of various principles of fluid mechanics. One lecture and one four-hour laboratory per week. Prerequisite: CE 331. (spring)

ECL 351 Engineering Geology **3 credits**
Elementary study of the material structure and internal condition of the earth and of the physical and chemical processes at work upon and within it. Three lecture hours per week. Prerequisite: Sophomore standing. (winter)

ECL 353 Soil Mechanics and Foundations **5 credits**
Engineering properties of soils; consolidation, shear strength, permeability. Fundamentals of slope stability and earth pressure theories. Fundamentals of foundation design. Four lecture and one laboratory session per week. Prerequisites: CE 323, CE 351. (spring)

ECL 371 Water Resources I **3 credits**
Conception, planning, design, construction, and operation of facilities to control and utilize water. Stream and flood analysis. Prerequisite: CE 331.

ECL 400 Cooperative Work Study Assignment **0 credits**
Field experience in an approved job assignment in industry or government. The assignment will be selected for its value in advancing the professional education of the student. May be taken four times.



ECL 402 Engineering Economy **3 credits**
Elements of immediate and long-term economy of design and maintenance; interest rates, present rates, present worth and prospective return on investment; depreciation and replacement studies. (spring)

ECL 403 Project/Construction Management **3 credits**
Introduction to project and construction management. How to plan and organize these services. Network scheduling, contracting procedures, risk analysis and estimating.

ECL 445 Structural Mechanics **5 credits**
Classical and matrix methods in structural mechanics. Basic structural theory in both classical and matrix notation. Prerequisite: CE 323. (fall)

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

ECL 471 Environmental Law I **3 credits**
ECL 472 Environmental Law II **3 credits**
I. Detailed survey of Federal legislation and case history as it relates to land use and development in the State of Washington. II. State legislation and case history as it relates to land use and development in the State of Washington. Local, county, and municipal legislation.

ECL 485 Sanitary Engineering I **5 credits**
ECL 486 Sanitary Engineering II **5 credits**
I. Examination of water and waste. Physical treatment processes. Laboratory experiments in microbial, bacteriological and chemical examination of water and wastes. Chemical and biological treatment, sludge disposal, disinfection, reuse of water, comprehensive planning. Four lectures and one laboratory per week. II. Stream pollution and self-purification. Analysis of industrial wastes. Four lectures per week plus selected field trips. Prerequisites: Ch 114 for 485; 485 for 486. (I. fall, II. spring)

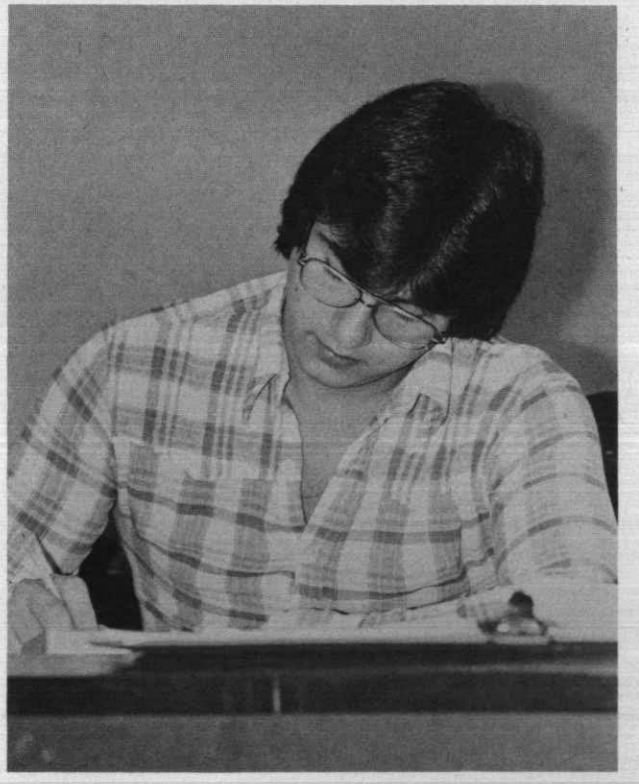
ECL 491 Special Topics **1-5 credits**

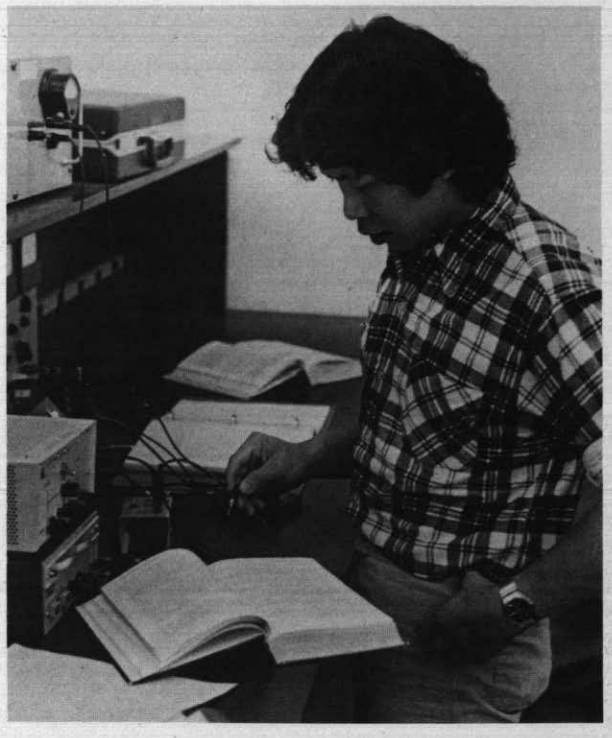
ECL 492 Transportation Systems **3 credits**
Development of transportation systems and social and economic effects. Planning present and future systems. Methods of public and private financing. (fall)

ECL 495 Advanced Studies **2-5 credits**
Independent study or research under the direction of a faculty member.

ECL 496 Seminar I **2 credits**
ECL 497 Seminar II **2 credits**
ECL 498 Seminar III **2 credits**
Development of oral and written communication skills through preparation and presentation of a technical paper. Prerequisite: Senior standing (I. fall, II. winter, III. spring.)

ECL 499 Thesis **1-5 credits**
Problem in analysis or design at the level of undergraduate research. Prerequisite: Senior standing.





Electrical Engineering

Francis P. Wood, SJ, M.S., Chairman

Objectives

Electrical engineering deals with the applications of electricity to the generation, transmission, distribution and utilization of electric power, to measurement, to control, to computation and to communication by wire and electromagnetic waves.

The specific objective of the department does not provide for undergraduate specialization in various fields but strives to provide a broad foundation based on mathematical and scientific principles that will prepare the graduate to take his/her place in any of the various fields of study.

The curriculum includes material in networks, electronics, radio, communication, and power apparatus and systems. Hence the student interested in electronics, in automatic control, or in any other specialty is given adequate scientific training in a well-balanced educational program.

Degrees Offered

Bachelor of Electrical Engineering
Bachelor of Engineering

General Program Requirements

Students in electrical engineering must satisfy the specific core curriculum requirements of the University as given on page 18 of this Bulletin for English, philosophy and theology and religious studies. Ten credits of humanities electives satisfy the core requirements in history and social science.

Departmental Requirements

Bachelor of Electrical Engineering — 65 credits in electrical engineering which must include EEL 105, 301, 303, 311, 341, 351, 411, 421, 433, 435, 443, 446, 448, 449, 455, 461, and 485. Also required are Mt 134, 135, 136, 233, and 234; EML 105, 113, and either EML 281 or Ph 310; and Ph 200, 201, 202, 203, 330 and 361. With approval, qualified students may substitute advanced courses in nuclear physics for electrical engineering courses. This degree is approved by the Engineers' Council for Professional Development.

Bachelor of Engineering — 55 credits in engineering, 25 credits in mathematics, and at least 10 credits in physics, chemistry, or biology. Not intended to be an entry-level degree into the engineering profession.

Bachelor of Electrical Engineering

Freshman year

Electrical Engineering 105	5 credits
English 100 and core option	10 credits
Mathematics 134, 135, 136	15 credits
Mechanical Engineering 105, 113	10 credits
Physics 200	5 credits

Sophomore year

Mathematics 233, 234	10 credits
Mechanical Engineering 281 or Physics 310	5 credits
Philosophy 110, 220 and core option	15 credits
Physics 201, 202, 203	15 credits

Junior year

Electrical Engineering 301, 303, 311, 341, 351	20 credits
Physics 330, 361	10 credits
Theology core options	10 credits
Humanities elective	5 credits

Senior year

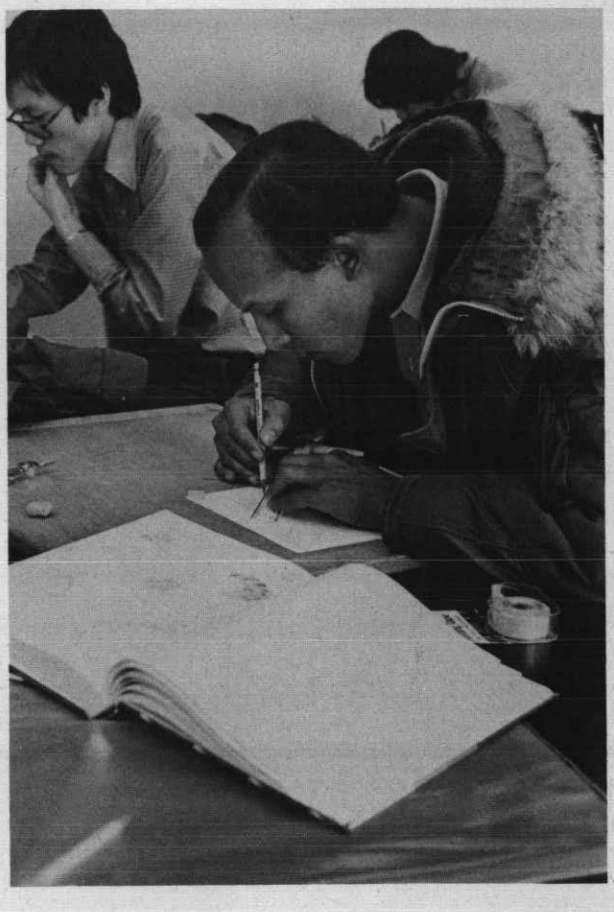
Electrical Engineering 411, 421, 433, 435, 443, 446, 448, 449, 455, 461, 485 and electives	40 credits
Humanities elective	5 credits
Total	180 credits

Electrical Engineering Courses

EEL 105 Digital Operations and Computation **5 credits**
Digital processing of information and data, number systems, Boolean Algebra; registers, counting and arithmetic operations; organization of computers, storage and numbering; introductory programming. (winter)

EEL 191 Special Topics **1-5 credits**
EEL 192 Special Topics **1-5 credits**
EEL 193 Special Topics **1-5 credits**

EEL 200 Cooperative Work Study Assignment **0 credits**
Field experience in an approved job assignment in industry or government. The assignment will be selected for its value in advancing the professional education of the student. May be taken four times.



EEL 291 Special Topics **1-5 credits**
EEL 292 Special Topics **1-5 credits**
EEL 293 Special Topics **1-5 credits**

EEL 300 Cooperative Work Study Assignment **0 credits**
Field experience in an approved job assignment in industry or government. The assignment will be selected for its value in advancing the professional education of the student. May be taken four times.

EEL 301 Electrical Circuits I **5 credits**
EEL 303 Electrical Circuits II **5 credits**
Fundamental concepts and units; energy and power; Kirchoff's laws, nodal and mesh analysis; steady-state solutions; coupled circuits and transformers; Fourier series and integral; transient response and Laplace transformation; polyphase circuits. I. Four lectures and one two-hour quiz per week. II. Four lectures and one four-hour laboratory per week. Prerequisites: Ph 201 for 301, 301 for 303. (I-fall, II-winter)

EEL 311 Seminar **0 credits**
Attendance required for junior year Electrical Engineering students. (winter)

EEL 341 Semiconductor Circuits I **5 credits**
Vacuum circuit and solid state linear circuit models; elementary amplifiers, cascaded circuits, gain-frequency characteristics and bandwidth control. Prerequisite: EEL 303. (spring)

EEL 351 Distributed Systems **5 credits**
Analysis of distributed systems; steady-state and transient analysis of loss-less lines; lossy lines; wave-guides. Four lectures, one four-hour laboratory per week. Prerequisites: Ph 330, EEL 303. (spring)

EEL 391 Special Topics **1-5 credits**
EEL 392 Special Topics **1-5 credits**
EEL 393 Special Topics **1-5 credits**

EEL 400 Cooperative Work Study Assignment **0 credits**
Field experience in an approved job assignment in industry or government. The assignment will be selected for its value in advancing the professional education of the student. May be taken four times.

EEL 411 Seminar **2 credits**
Each student is required to prepare a technical paper and to present it orally to the class. Prerequisite: senior standing in electrical engineering. (winter)

EEL 421 Linear Analysis I **3 credits**
Fourier and Laplace transforms; analytic functions; inversion methods; conformal mapping; introduction to network synthesis. Prerequisite: EEL 303. (fall)

EEL 433 Linear Analysis II **5 credits**
Linear, time invariant, discrete systems; finite moving average and recursive digital filters; Z-transform; discrete Fourier transform; fast Fourier transform. Prerequisite: EEL 421. (winter)

EEL 435 Electromechanical Energy Conversion **5 credits**
Electromechanical energy conversion principles; transformers and rotating machines, special devices. Prerequisite: EEL 421. (winter)

EEL 443 Semiconductor Circuits II **5 credits**
Linear power, push-pull, feedback, Class AB, B and C, and tuned amplifiers; gain-frequency characteristics; oscillators. Prerequisite: EEL 341. (fall)

EEL 446 Electrical Engineering Laboratory I **2 credits**
EEL 448 Electrical Engineering Laboratory II **2 credits**
Laboratory problems in analysis and design for electronic communication and control for electrical engineering seniors; analog and digital systems. One hour lecture and one four-hour laboratory per week. Prerequisite: EEL 341. (I-fall, II-spring)

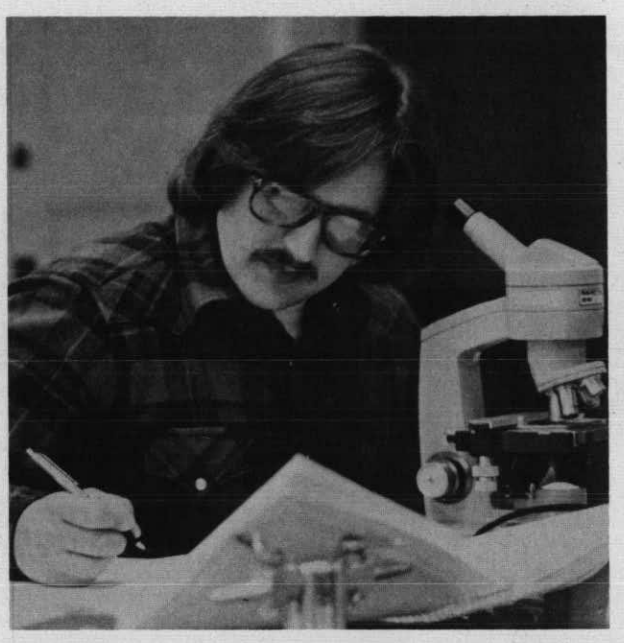
EEL 449 Digital System Design **2 credits**
Digital electronic circuits; logic types; small and medium scale integrated circuits; A/D and D/A conversion; computer architecture. Prerequisites: EEL 105, 341. (fall)

EEL 455 Microwave Devices and Applications **3 credits**
Microwave sources and amplifiers; tube and solid-state, guided waves and free-space propagation, microwave circuit components, fundamentals of antennas. Three one-hour lectures per week. Prerequisites: EEL 351, Ph 330. (fall)

EEL 461 Control Systems **5 credits**
Fundamentals of classical and modern system theory; analysis and design of closed-loop systems with emphasis on stability and transient response using Nyquist, Bode, s-plane and state-space techniques. Prerequisites: EEL 421, 435. (spring)

EEL 485 Modulation and Noise **3 credits**
Signal transmission through electrical networks; amplitude, phase, frequency modulation; sampling and pulse modulation; noise; comparative analysis of information transmission systems. Prerequisite: EEL 421. (winter)

EEL 491 Special Topics **1-5 credits**
EEL 492 Special Topics **1-5 credits**
EEL 493 Special Topics **1-5 credits**



General Science

Ernest P. Bertin, S.J., Ph.D., Program Director

Objective

The objective of the program in general science is to offer the student a liberal education with sufficient background in science to enable the graduate to work in easy liaison with scientists and engineers in industry or government. Judicious use of elective hours permits the student to specialize in other technical areas or in business. Students expecting to transfer to a professional training program in an allied health field, such as dental hygiene, occupational therapy, or physical therapy, after several years of basic science background, may receive special counseling and guidance within the General Science program. This service also is available to students in premedical, predental, preveterinary, and prechiropractic studies.

Degree Offered

Bachelor of Science in General Science

General Program Requirements

Students in general science must satisfy the core curriculum requirements of the University as given on page 18 of this bulletin for English, philosophy and theology and religious studies. At least 15 credits in humanities or social science electives are required.

Degree Requirements

This degree requires 90 credits chosen from the following fields: biology, chemistry, mathematics, physics, psychology and engineering. For this purpose all engineering courses are considered as being in one field. At least 30 credits must be in one of these fields, 20 credits in a second field, and 10 credits in mathematics. Two other fields must be represented by at least one course. At least 15 credits must be from 300- or 400-level courses.

Health Information

Mary Alice Hanken, R.R.A., Chairman

Objectives

The Health Information program is designed to prepare the student for a career in an administrative health care profession by providing a comprehensive four-year program of liberal arts and science. In the fourth year emphasis is on professional activities and interaction with the health care industry. Special attention is given to computerization of health information. Students who complete the program are eligible for registration with the American Medical Record Association.

Degree Offered

Bachelor of Science in Health Information

General Program Requirements

Degree candidates in health information must satisfy the core curriculum requirements of the University as given on page 18 of this bulletin for English, philosophy, and theology and religious studies. Additional core requirements are 15 credits in history or social science.

Certificate Program

Students who already possess a baccalaureate degree in any field may be eligible for the Certificate in Health Information Services Program, as fifth year students. Prerequisites for admission to the certificate program are acceptable college credits in human anatomy and physiology (with laboratory), principles of digital computers, statistics, and management practices.

Departmental Requirements

Bachelor of Science in Health Information — 50 credits in Health Information which must include HI 401, 402, 403, 422, 425, 426, 430, 440, 441, 455, 470, 475, and 495; 25 credits of science or mathematics, excluding computer courses; and 10 credits of computer courses, excluding HI 475.

Students who have completed a program for medical record technicians, approved by the American Medical Association, may be placed in appropriate advanced Health Information courses.

Certificate in Health Information — 46 credits in Health Information, equivalent to HI 401, 402, 403, 422, 425, 426, 430, 440, 441, 455, 470, 475, and 495.

Bachelor of Science in Health Information

Freshman Year

Biology or Chemistry elective	5 credits
English 100 and core option	10 credits
History or social science electives	15 credits
Mathematics	5 credits
Philosophy 110	5 credits
Elective	5 credits

Sophomore Year

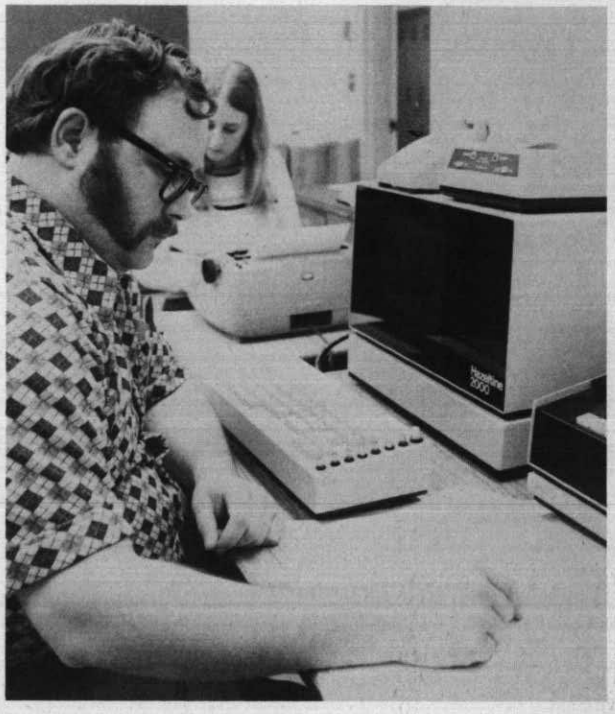
Biology or Chemistry elective	5 credits
Speech 200 or 201	5 credits
Health Information 430	5 credits
Mathematics 213 or 214	5 credits
Philosophy 220	5 credits
Theology and Religious Studies options	10 credits
Electives	10 credits

Junior Year

Biology 200, 210	10 credits
Business 380	5 credits
Business 310 or HI Computer elective	5 credits
Health Information 401	5 credits
Philosophy core option	5 credits
Psychology 201 or Sociology 201	5 credits
Electives	10 credits

Senior Year

Health Information 402, 403, 422, 425, 426, 440, 441, 455, 470, 475 and 495	36 credits
Health Information electives	4 credits
Elective	5 credits
Total	180 credits



Health Information Courses

HI 401 **Introduction to Health Records** **5 credits**
Development, present scope and future direction of the health record profession. Initial development of skills for record analysis and control, medical statistics, record retrieval and disease coding. Prerequisite: BI 200, 210 or permission. (fall, spring)

HI 402 **Management of Health Information Systems I** **5 credits**

HI 403 **Management of Health Information Systems II** **5 credits**
I. Coordination of record systems and information centers in health facilities. II. Use of standards designed by JCAH, AMA, DHEW, and other agencies to raise level of health care quality; effects of standards on health record administration. Prerequisites: HI 401 for I; I for II. (I-fall, winter; II-winter, spring)

HI 422 **Medical Terminology** **3 credits**
Prerequisite BI 200, 210 or permission of instructor. (fall, spring)

HI 425 **Medical Science I** **3 credits**
HI 426 **Medical Science II** **3 credits**
I. The problem-oriented approach to cause, treatment and management of patients. Circulatory, respiratory, hemic and lymphatic, musculoskeletal, integumentary, urogenital and female reproductive systems. II. Endocrine and nervous systems, special senses, psychobiologic units, treatment including drugs, laboratory tests and anesthesia. Prerequisite BI 200, 210 or permission. (I. winter II. spring)

HI 430 **Health Care Delivery System** **5 credits**
Study of the organization, delivery and financing of health care in the United States. Interdisciplinary exploration of the relationships of personnel, facilities and organizations in the health field. (winter, spring)

HI 440 Practicum **1-5 credits**
HI 441 Practicum **1-5 credits**
Practicum is designed to help students develop themselves through utilizing opportunities to participate in current health information activities with professional medical record administrators and other professionals in the health field. Prerequisite to HI 440-HI 401. (fall, winter, spring, summer)

HI 450 Development of Management Resources **3 credits**
Utilization of management methods and resources in the effective direction of a department, system or function with emphasis on budget, layout, work simplification, job analysis and equipment selection. Prerequisite HI 401. (fall, winter)

HI 455 Comprehensive Communication Skills **3 credits**
Development of skills needed to select and use communications media in effective leadership. Personnel selection and evaluation, educational and training programs, skill in relating information. (winter, spring)

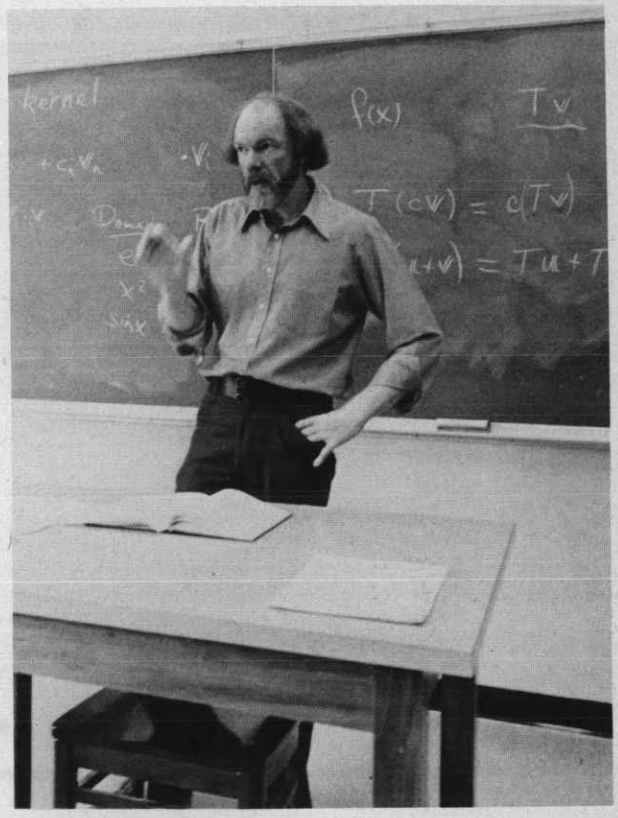
HI 470 Legal Concepts for Health Fields **3 credits**
Principles of law as applied to the health field, with particular reference to all phases of medical record practice. (fall, spring)

HI 475 Health Information Computer Systems **5 credits**
Data processing with stress on the important aspects of computer science and their relationship to problem solving in health information science.

HI 491 Special Topics **2-5 credits**
HI 492 Special Topics **2-5 credits**

HI 495 Problem Solving and Decision Making—Seminar **2 credits**
(winter, spring)

HI 497 Independent Study **1-6 credits**
Prerequisites: Senior standing; permission. (fall, winter, spring)



Mathematics

Andre L. Yandl, Ph.D., Chairman

Objectives

The Mathematics Department offers training in three distinct programs. The first, leading to the Bachelor of Science in Mathematics, prepares the student for advanced study and professional work in mathematics. The others are more flexible programs which provide for work in a secondary field and lead to either the Bachelor of Arts or the Bachelor of Science degree.

Degrees Offered

Bachelor of Arts
Bachelor of Science
Bachelor of Science in Mathematics

General Program Requirements

Students in mathematics must satisfy the core curriculum requirements of the University as given on page 18 of this bulletin for English, philosophy and theology and religious studies. Additional core requirements are as follows: for the Bachelor of Arts degree, 10 credits in history, 10 credits in social science and 15 credits in physical or life science, psychology or economics; Bachelor of Science degree, 15 credits in history or social science; and Bachelor of Science in Mathematics degree, 15 credits in history or social science. Either French or German may be taken to fulfill the language requirement. A minimum grade of C is required in all mathematics courses applied toward the major. See programs of study for additional requirements.

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.

Honors Work in Mathematics

For superior students the department offers honors work consisting of a year of independent study under the supervision of a senior faculty member. Normally the work will be done during the senior year at a level beyond that of the regular undergraduate courses and will culminate in the writing of a term paper or senior thesis. Students who wish to undertake this program will be encouraged to take Mt 315 or 381 in the sophomore year and a 400-level series in their junior year in order to have the background sufficient to conduct their independent study. The independent study is an addition to the regular course requirements for the Bachelor of Science in Mathematics degree. No special distinction will be made in the degree earned by students completing the program.

Departmental Requirements

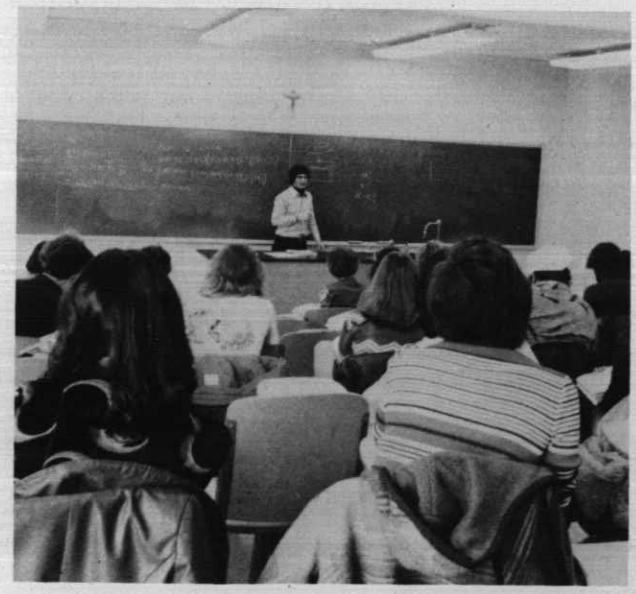
Bachelor of Arts — 50 credits in mathematics which must include Mt 134, 135, 136, 233, 234, 315 or 381, 411 or 431 and 15 additional credits of approved upper division mathematics. General physics and the fine arts sequence are recommended.

Bachelor of Science — 60 credits of mathematics and 30 credits of physical science, psychology or economics.

Bachelor of Science in Mathematics — 70 credits in mathematics which must include Mt 134, 135, 136, 233, 234, 411, 412, 413, 431, 432, 433; 15 additional credits in upper division mathematics; and 15 credits of physics. In certain circumstances, with the approval of the chairman, 15 credits of upper division work in a physical science may be substituted for 15 credits in mathematics. Students in this program must maintain a cumulative grade point average and a mathematics grade point average of 2.50. The fine arts sequence is recommended.

Undergraduate Minor — 30 credits in mathematics which must include Mt 134, 135, 136 and 15 credits of approved electives beyond college algebra.

Teaching Major (School of Education) — 45 credits in mathematics which must include Mt 134, 135, 136, 233, 300, 321 or 322 and 15 credits of approved electives beyond college algebra (Mt 213 and 214 are included among approved electives).



Bachelor of Arts

Freshman year

English 100 and core option	10 credits
History core option	10 credits
Mathematics 134, 135, 136	15 credits
Philosophy 110	5 credits
Social Science core option	5 credits

Sophomore year

Mathematics 233, 234 and elective	15 credits
Philosophy 220 and core option	10 credits
Physical or Biological Science, Psychology or Economics	15 credits
Social Science core option	5 credits

Junior year

French or German 105, 106	10 credits
Mathematics 315 or 381 and electives	15 credits
Theology core options	10 credits
Electives	10 credits

Senior year

Mathematics 411 or 431	5 credits
Electives	40 credits
Total	180 credits

Bachelor of Science

Freshman year

Mathematics	15 credits
English 100 and core option	10 credits
Philosophy 110 and 220	10 credits
Physical Science, Psychology or Economics	10 credits

Sophomore year

Mathematics	15 credits
History or Social Science core option	15 credits
Physical Science, Psychology or Economics	10 credits
Philosophy core option	5 credits

Junior year

Mathematics	15 credits
Physical Science, Psychology or Economics	10 credits
Theology core options	10 credits
Electives	10 credits

Senior year

Mathematics	15 credits
Electives	30 credits
Total	180 credits

Bachelor of Science in Mathematics

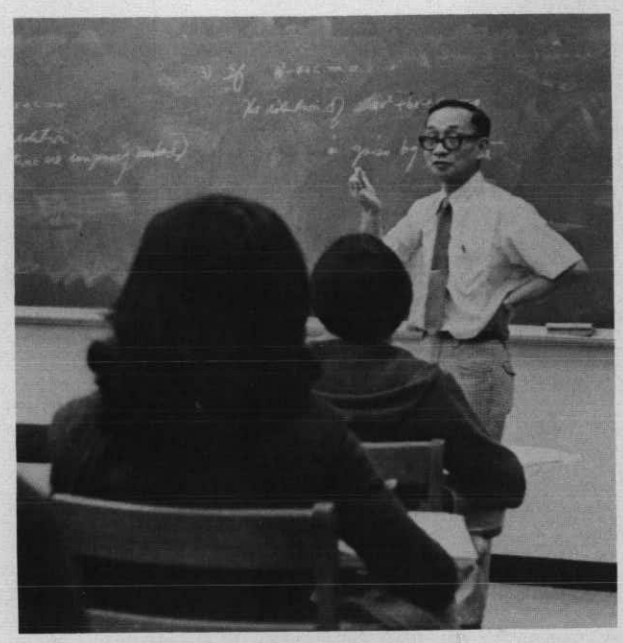
Freshman year
English 100 and core option ..... 10 credits
History/Social Science core options ..... 15 credits
Mathematics 134, 135, 136 ..... 15 credits
Philosophy 110 ..... 5 credits

Sophomore year
Mathematics 233, 234, and 315 or 381 ..... 15 credits
Philosophy 220 and core option ..... 10 credits
Physics 200 ..... 5 credits
Electives ..... 15 credits

Junior year
French or German 105, 106 ..... 10 credits
Mathematics 411, 412, 413 or
431, 432, 433 ..... 15 credits
Physics 201, 202 ..... 10 credits
Theology core options ..... 10 credits

Senior year
Mathematics 431-432-433 or 411-412-413
and electives ..... 25 credits
Electives ..... 20 credits

Total . . . . 180 credits



Proper Sequence for Taking Courses

The normal sequence of elementary mathematics courses is Mt 101; Mt 112 or Mt 118; Mt 130 or Mt 134; Mt 135; Mt 136; Mt 233; and Mt 234. A student, who has received a C or better in any course of this sequence or its equivalent, cannot 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 175, and Mt 200. A student may not receive credit for more than one course from each of the following pairs: Mt 100 and Mt 101; Mt 112 and Mt 118; Mt 130 and Mt 134.

Mathematics Courses

Mt 100 Intermediate Algebra 2-5 credits
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. The completion of 5 credits of Mt 100 is equivalent to Mt 101. (winter: 3 credits, spring: 2 credits)

Mt 101 Intermediate Algebra 5 credits
Introduction to logic and sets; laws of exponents; linear and quadratic equations; inequalities; systems of equations. Prerequisite: one year each of high school algebra and geometry. (fall, winter, spring)

Mt 112 College Algebra and Trigonometry 5 credits
Sets; relations; algebra of functions; exponential, logarithmic, trigonometric, inverse trigonometric functions; equations; graphs. Prerequisite: Mt 101 or one-and-one-half years of high school algebra. (fall, winter, spring)

Mt 118 College Algebra for Business 5 credits
Sets; relations and functions, graphing; linear, quadratic, exponential, logarithmic functions; systems of linear equations; inequalities; linear programming; applications to business. Prerequisite: Mt 101 or equivalent. (fall, winter, spring)

Mt 130 Elements of Calculus for Business 5 credits
Rate of change; derivative, basic differentiation formulas, extrema; area under a curve; limits of sequences; the definite integral and applications. Prerequisite: Mt 118. (fall, winter, spring)

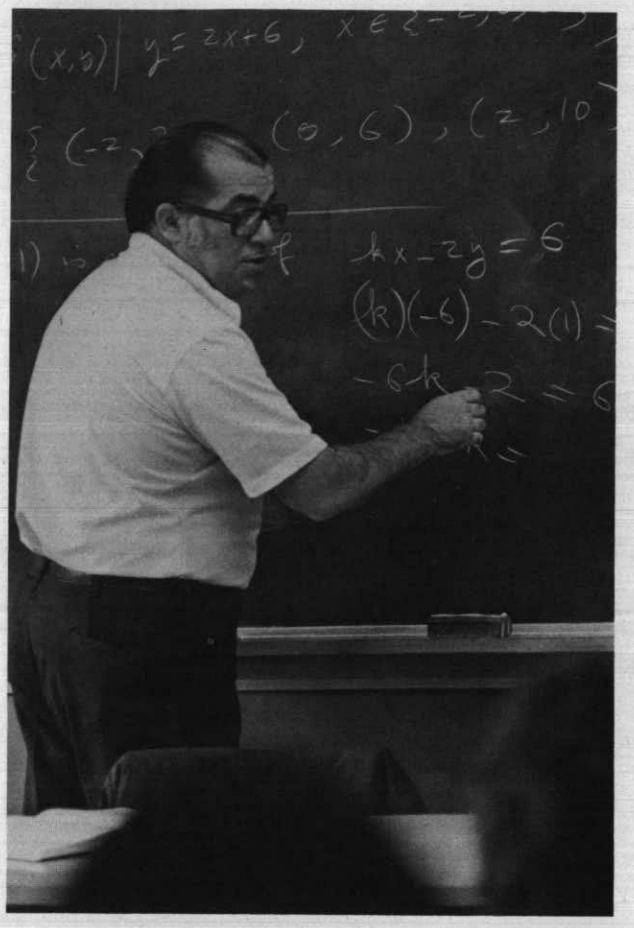
Mt 134 Calculus and Analytic Geometry I 5 credits
Mt 135 Calculus and Analytic Geometry II 5 credits
Mt 136 Calculus and Analytic Geometry III 5 credits
I. Review of precalculus subjects; limits and derivatives; applications of limits and derivatives. II. Theory, technique, and applications of integration; differentiation and integration of trigonometric, exponential and logarithmic functions. III. Indeterminate forms; improper integrals; infinite series; Taylor's theorem; vectors, polar coordinates; solid analytic geometry. Prerequisites: Mt 112 or qualifying examination for 134; 134 for 135; 135 for 136. (All three offered fall, winter, spring)

Mt 175 Mathematics for the Liberal Arts Student 5 credits
Elementary logic; sets, relations and functions; topics chosen from geometry, abstract algebra, linear algebra and computer science; statistics and probability. (fall, winter, spring)

Mt 200 Theory of Arithmetic 5 credits
Systems of numeration; elementary logic; sets; relations, equivalence classes; number systems and the integration of these concepts. Prerequisite: Mt 101 or 175, or equivalent. (fall, winter, spring)

Mt 213 Introduction to Computers 5 credits
Fundamentals of the BASIC language. Overview of data management, hardware, languages, packaged programs, and trends in computer usage. Laboratory using the computing center. (fall, winter, spring)

Mt 214 Fundamentals of FORTRAN Programming 5 credits
FORTRAN language including flowcharting, debugging, input/output, loops, sub-programs. Laboratory programming assignments in a variety of disciplines. Prerequisite: ME 101 or equivalent. (fall, winter, spring)



Mt 233 **Multivariable Calculus and Linear Algebra** **5 credits**
Partial derivatives, multiple integration and applications; introduction to differential equations; matrices and determinants. Prerequisite: Mt 136. (fall, winter, spring)

Mt 234 **Vector Calculus and Differential Equations** **5 credits**
Vector spaces; linear transformations; eigenvalues; linear differential equations; systems of differential equations; power series solutions. Prerequisite: Mt 233 (winter, spring)

Mt 291 **Special Topics** **1-5 credits**
Mt 292 **Special Topics** **1-5 credits**
Mt 293 **Special Topics** **1-5 credits**

Mt 300 **Methods for Secondary School Mathematics** **5 credits**
Special topics in mathematics relevant to the high school curriculum; emphasis on basic concepts and foundations. Prerequisite: Mt 136 or permission of instructor. (spring of alternate years)

Mt 315 **Number Theory** **5 credits**
Divisibility and the Euclidean algorithm; congruences; quadratic reciprocity law; numerical functions; the Mobius inversion formula. Prerequisite: Mt 135. (spring of alternate years)

Mt 321 **Foundations of Euclidean Geometry** **5 credits**
Axiomatic foundations of Euclidean geometry; ruler and compass constructions; problems of antiquity; the 5th postulate and non-Euclidean geometries. Prerequisite: Mt 135. (winter of alternate years)

Mt 322 **Topics in Geometry** **5 credits**
Selected topics in Advanced Geometry. May be repeated for credit with permission. Prerequisite: Mt 233 or permission. (winter of alternate years)

Mt 351 **Probability** **5 credits**
Basic concepts and theorems in probability theory; the binomial, Poisson, normal and other fundamental probability distributions; moments; limit theorems. Prerequisite: Mt 233. (fall)

Mt 371 **Introduction to Numerical Methods** **5 credits**
Approximation and errors; finite differences, numerical integration; numerical solution of differential equations. Three lecture and two computer laboratory hours per week. Prerequisites: Mt 136 and 214 or permission.

Mt 381 **Elementary Topology** **5 credits**
Set theory; topology of the real line; topological spaces; compactness; connectedness; product spaces; metric spaces. Prerequisite: Mt 233. (spring of alternate years)

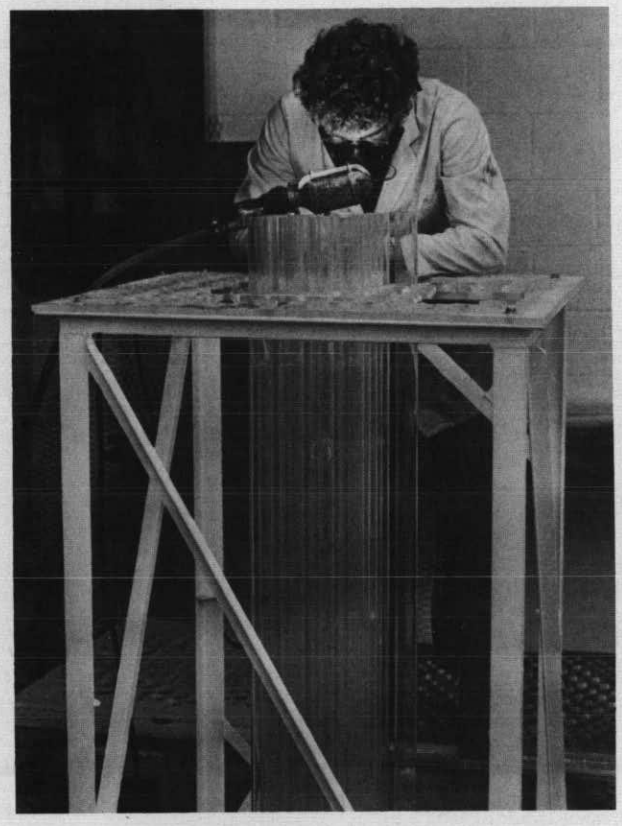
Mt 411 **Introduction to Abstract Algebra I** **5 credits**
Mt 412 **Introduction to Abstract Algebra II** **5 credits**
Mt 413 **Introduction to Abstract Algebra III** **5 credits**
Theory of groups, rings, fields and field extensions; vector spaces and linear transformations; special topics. Prerequisites: Permission for 411; 411 for 412; 412 for 413. (offered in sequence: fall, winter, spring of alternate years)

Mt 431 **Introduction to Real Analysis I** **5 credits**
Mt 432 **Introduction to Real Analysis II** **5 credits**
Mt 433 **Introduction to Real Analysis III** **5 credits**
Rigorous introduction to real analysis; limits, continuity, differentiation of real functions; functions on metric spaces; applications of compactness and connectedness; Riemann-Stieltjes integrals; sequences and series of functions; elements of Lebesque theory. Prerequisites: Permission for 431; 431 for 432; 432 for 433. (Offered in sequence: fall, winter, spring of alternate years)

Mt 437 **Introduction to Complex Variables** **5 credits**
The complex number system, analytic functions, integrations, series, residues, conformal mapping. Prerequisite: Mt 234.

Mt 491 **Special Topics in Mathematics** **2-5 credits**
Mt 492 **Special Topics in Mathematics** **2-5 credits**
Mt 493 **Special Topics in Mathematics** **2-5 credits**
May be repeated for a maximum of 12 credits. Prerequisite: Permission.

Mt 497 **Independent Study** **1-5 credits**
Mt 498 **Independent Study** **1-5 credits**
Mt 499 **Independent Study** **1-5 credits**
May be repeated for a maximum of 10 credits. Prerequisite: Permission.



Mechanical Engineering

Harry Majors, Jr., M.S., Chairman

Objectives

The mechanical engineer is concerned with the fundamental properties of solids, liquids and gases related to the creative design and manufacture of machines, heat engines, electro-mechanical devices and control systems. He is concerned with the broad area of energy conversion as related to the design of machines. This requires working with the processes of combustion, nuclear and chemical reactions, solar radiations, propulsion systems for sea, land and space and all types of materials under a vast array of conditions.

A mechanical engineer may enter positions in research and development, design engineering, salesmanship, and, with experience, executive positions in industry.

Degrees Offered

Bachelor of Engineering
Bachelor of Mechanical Engineering
Certificate in Transportation Engineering
Master of Transportation Engineering — See Graduate Bulletin

General Program Requirements

Students in mechanical engineering must satisfy core curriculum requirements of the University as given on page 18 of this bulletin for English, philosophy and theology and religious studies. Ten credits of humanities electives satisfy the core requirements in history and social science.

Departmental Requirements

Bachelor of Mechanical Engineering — 65 credits in mechanical engineering which must include EML 105, 113, 281, 321 (or Ch 361, 363), 371, 380, 425, 426, 430, 472, 473, 484, 485, 496, 497, and 498. Also required are Mt 134, 135, 136, 233 and 234; ECL 321, 323, 331, 337 and 402; EEL 301; Ph 200, 201, and either Ph 202 or Ch 115; and Ch 114. With approval, qualified students may substitute equivalent or more advanced courses for those listed. This degree is approved by the Engineers' Council for Professional Development.

Bachelor of Engineering — 55 credits in engineering, 25 credits in mathematics, and at least 10 credits in physics, chemistry or biology. Not intended to be an entry-level degree into the engineering profession.

Bachelor of Mechanical Engineering

Freshman year

English 100 and core option	10 credits
Mathematics 134, 135, 136	15 credits
Mechanical Engineering 105, 113	10 credits
Physics 200	5 credits
Philosophy 110	5 credits

Sophomore year

Chemistry 114	5 credits
Humanities Elective	5 credits
Mathematics 233, 234	10 credits
Mechanical Engineering 281	5 credits
Philosophy 220	5 credits
Physics 201	5 credits
Physics 202 or Chemistry 115	5 credits
Theology core option	5 credits

Junior year

Civil Engineering 321, 323, 331, 337	17 credits
Electrical Engineering 301	5 credits
Mechanical Engineering 321 or Chemistry 361, 363, and ME 371, 380	13 credits
Philosophy core option	5 credits
Theology core option	5 credits

Senior year

Civil Engineering 402	3 credits
Humanities Elective	5 credits
Mechanical Engineering 425, 426, 430, 472, 473, 484, 485, 496, 497, 498	37 credits
Total	180 credits

Mechanical Engineering Courses

EML 105 Engineering Graphics and Analysis **5 credits**
Engineering Communication. Drafting instruments, lettering, orthographics, isometrics, free-hand sketching, dimensioning. Descriptive geometry. Vector algebra. Elementary programming. Five two-hour sessions per week. (fall)

EML 113 Statics **5 credits**
Vector algebra. Equilibrium of forces and moments, distributed forces, hydrostatics, friction, virtual work; all applied to simple bodies. Four lectures, one-hour problem session per week. Prerequisites: Mt 135 (or concurrent), EML 105.

EML 200 Cooperative Work Study Assignment **0 credits**
Field experience in an approved job assignment in industry or government. The assignment will be selected for its value in advancing the professional education of the student. May be taken four times.

EML 269 Production Processes I **1 credit**
EML 270 Production Processes II **1 credit**
Study of the processes used in forming and shaping engineering materials; lectures, demonstrations and laboratory work on machining processes. One lecture and three laboratory hours per week. Prerequisite: Sophomore standing, ME 269 for 270. (I-fall, II-winter)

EML 281 Dynamics **5 credits**
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. Four lecture hours, one-hour problem session. Prerequisites: EML 113, Mt 135. (winter)

EML 291 Special Topics **1-5 credits**
EML 292 Special Topics **1-5 credits**
EML 293 Special Topics **1-5 credits**

EML 300 Cooperative Work Study Assignment **0 credits**
Field experience in an approved job assignment in industry or government. The assignment will be selected for its value in advancing the professional education of the student. May be taken four times.

EML 321 Engineering Thermodynamics I **5 credits**
Thermal properties of ideal and real gases, liquids, vapors and mixtures. Conservation of energy. Convesion of thermal energy to work. Power, efficiency, cycles, compressible gas flow. Prerequisite: ECL 331. (winter)

EML 371 Machine Design I **3 credits**
Relation of engineering fundamentals and properties of materials to the design, layout and details of specific machines; computation techniques and use of digital and analogue computers. Prerequisites: EML 281, ECL 323, 331. (spring)

EML 380 Heat Transfer I **5 credits**
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 four-hour laboratory per week. Prerequisite: EML 321. (spring)

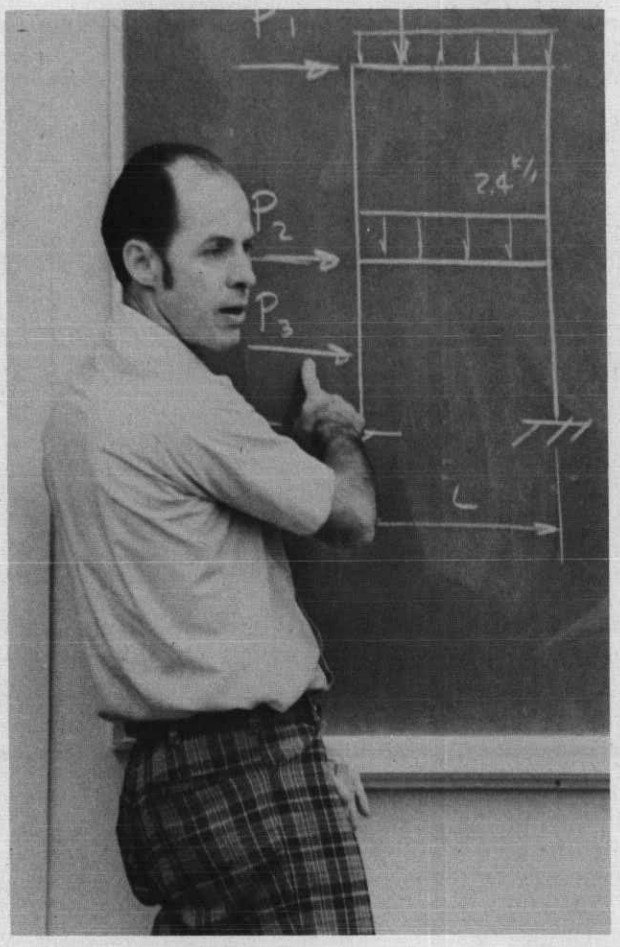
EML 400 Cooperative Work Study Assignment **0 credits**
Field experience in an approved job assignment in industry or government. The assignment will be selected for its value in advancing the professional education of the student. May be taken four times.

EML 425 Power Plants I **5 credits**
Thermodynamics applied to ideal and real cycles, internal and external combustion engines, fans, blowers, compressors, nozzles, refrigeration, air conditioning, liquifaction of gases. Four lectures, one four-hour laboratory per week. Prerequisite: EML 321. (fall)

EML 426 Power Plants II **5 credits**
Thermodynamics, heat transfer, fluid mechanics applied to design of modern thermal power stations and auxiliaries with economic and ecologic integration into regional power systems. Four lectures, one four-hour laboratory per week. Prerequisite: EML 425. (winter)

EML 428 Environmental Engineering **4 credits**
Man-machine systems. Engineer's approach to multi-disciplinary aspects of environmental control. Psychological and physiological principles of one's interrelation with the surroundings. Three lectures, one four-hour laboratory per week. Prerequisite: EML 321.

EML 430 Principles of the Properties of Materials I **5 credits**
Atomic structure. Metallic bond. Structure of metals and non-metals. Equilibrium diagrams. Time-dependent transformations. Relation of structure to properties. Elastic and plastic deformation. Three lectures, one four-hour laboratory per week.



EML 472 Machine Design II **3 credits**
EML 473 Machine Design III **3 credits**
EML 474 Machine Design IV **1-5 credits**
II. Philosophy of design, a creative approach, and a comprehensive design project; planning, organizing and leading an engineering project; exercising judgment and considering economic factors. III. Integrated aspects of creative design and analysis; case studies; design of a novel device or system; electromechanical, hydraulic and pneumatic systems; energy conversion. IV. Project work. Prerequisites: EML 371 for 472; 472 for 473; 473 for 474. (II-fall, III-winter)

EML 477 Experimental Mechanics **1-5 credits**
Measurements by means of mechanical, electric, magnetic, optical sensing devices. Control systems. Vibration, shock and impact measurements. Interpretation of results. Prerequisites: ECL 337, EML 371.

EML 478 Compressible Flow I **5 credits**
One-dimensional gas dynamics including flow in nozzles and diffusers, normal shocks, frictional flows and flows with heat transfer and energy release. Prerequisites: ECL 331, EML 322.

EML 479 Theoretical Hydrodynamics **5 credits**
Ideal fluid motion. Euler's equation. Potential flow. LaPlace equation. Hydrodynamics singularities, two and three dimensional flow. Conformal transformation. Flow around objects. Prerequisite: Permission.

EML 481 Heat Transfer II **5 credits**
Advanced topics in conduction, convection, and radiation. Mass transfer and diffusion. Four lectures, one four-hour laboratory per week. Prerequisite: EML 380.

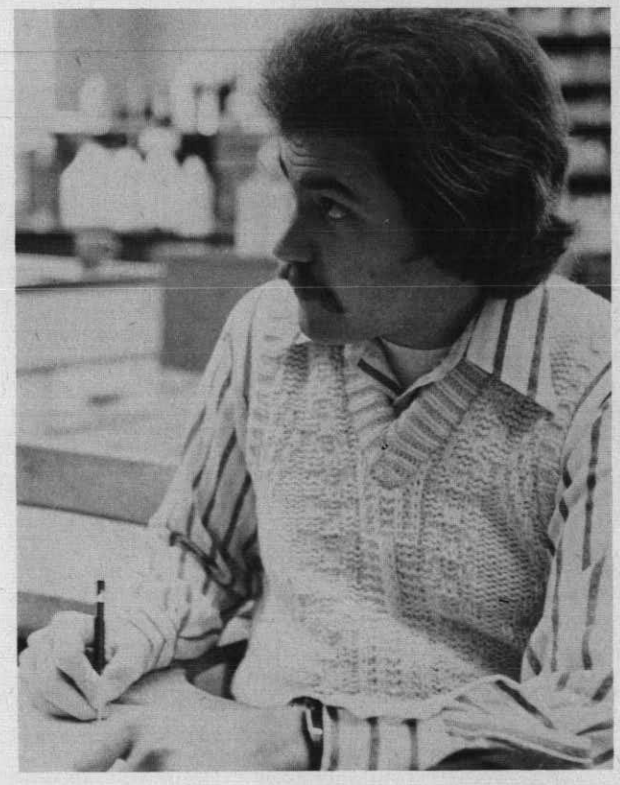
EML 484 Linear Systems Analysis **5 credits**
Dynamics of linear systems. Classical and transform methods of differential equation analysis. Experimental methods. Analog and digital computer methods. Four lectures, one four-hour laboratory per week. Prerequisites: EML 321, EML 371. (winter)

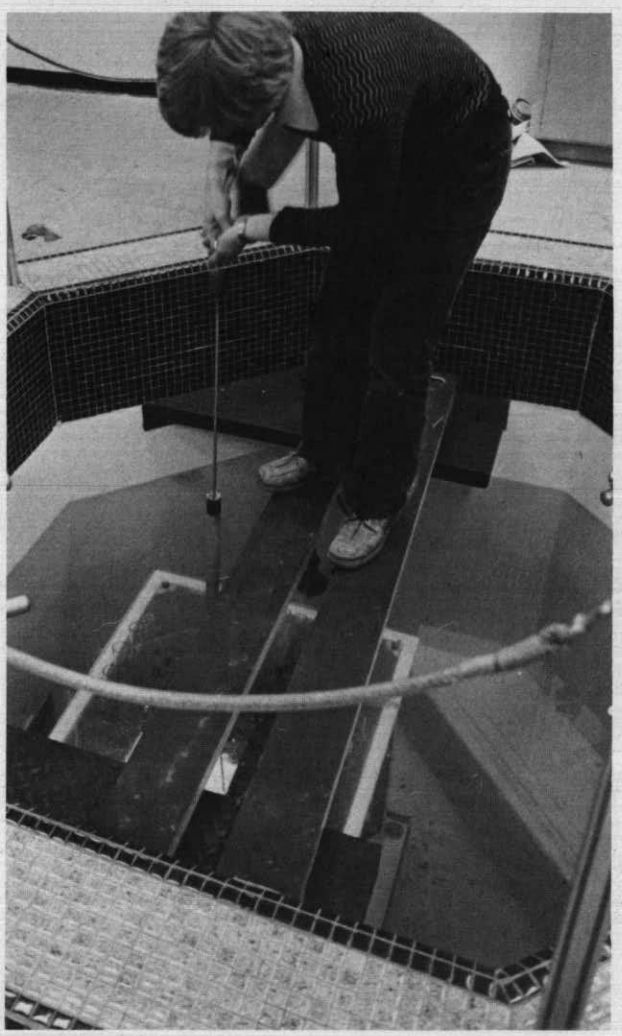
EML 485 Control Systems I **5 credits**
Feedback control system analysis. System elements and their transform functions. Criterions and plots. Analog and digital computer simulation. Four lectures, one four-hour laboratory per week. Prerequisite: EML 484 (spring)

EML 491 Special Studies **2-5 credits**
EML 492 Special Studies **2-5 credits**
EML 493 Special Studies **2-5 credits**
Selected subjects of current interest in mechanical engineering. Assigned reading and/or experiments will be arranged on an individual basis in consultation with the instructor. Written report and oral delivery are required. Prerequisite: Senior standing.

EML 496 Seminar **2 credits**
EML 497 Seminar **2 credits**
EML 498 Seminar **2 credits**
Prerequisite: Senior standing. (fall, winter, spring)

EML 499 Thesis **2 credits**
In special cases a thesis may be substituted in place of seminar with the approval of the department chairman. Prerequisite: Senior standing.





Physics

David Ehlers, Ph.D., Chairman

Objectives

The Physics department offers three programs leading to degrees. 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. This curriculum is designed to prepare students for advanced work in pure and applied physics or for graduate study. For those who wish a broader training in the sciences in addition to a rigorous program in physics, the Bachelor of Science program offers the flexibility that is required. The Bachelor of Arts program is ideal for those who desire a solid background in physics along with a broad liberal arts education.

Degrees Offered

Bachelor of Arts
Bachelor of Science
Bachelor of Science in Physics

General Program Requirements

Students majoring in physics must satisfy the core curriculum requirements of the University as given on page 18 of this bulletin, except that for the Bachelor of Science and Bachelor of Science in Physics degrees, 15 credits of history and/or social science are required.

Bachelor of Arts — 45 credits in physics which must include Ph 200, 201, 202, 203, 290, 310, 330 and 375. A minimum of 15 additional credits in a related science is required.

Bachelor of Science — 60 credits in physics which must include Ph 200, 201, 202 and 203; 30 credits in mathematics or science electives.

Bachelor of Science in Physics — 70 credits in physics consisting of Ph 200, 201, 202, 203, 290, 310, 311, 330, 331, 361, 375, 481, 485 and 470 or 475. Mathematics 134, 135, 136, 233 and 234 are required.

Teaching Major (School of Education) — 45 credits in physics and mathematics; 30 credits in physics which must include Ph 105, 106, 107, 110, and 10 elective credits. Ph 290 and 375 are recommended electives, and Ph 200, 201, 202 may be taken in place of 105, 106, 107 for those students who desire a more rigorous background in general physics. The required 15 credits in mathematics must include 10 credits in calculus and computer. (Mt 213 or 214, 134).

Undergraduate Minor — 30 credits in physics which must include either Ph 105, 106, 107 or Ph 200, 201, 202, 203. Ph 101, 110, and 111 may not be counted toward the minor.

Bachelor of Science in Physics

Freshman Year

Physics 200	5 credits
Mathematics 134, 135, 136	15 credits
Core options	20 credits
Elective	5 credits

Sophomore Year

Physics 201, 202, 203, 290	20 credits
Mathematics 233, 234	10 credits
Core options	10 credits
Elective	5 credits

Junior Year

Physics 310, 311, 330, 331, 361, 375	30 credits
Core options	10 credits
Elective	5 credits

Senior Year

Physics 481, 485, and 470 or 475	15 credits
Core options	10 credits
Electives	20 credits
Total	180 credits

Physics Courses

Note: Ph 105, 106, 107, 200, 201, 202, 290, and 475 have four lectures and one three-hour laboratory per week. All other physics courses have five lectures per week except as noted.

Ph 101 Energy Sources and Uses **5 credits**
The demand for energy; methods of power generation; energy resources; end uses of energy; energy conservation principles; environmental and economic factors; energy in the Pacific Northwest.

Ph 105 Mechanics and Sound **5 credits**
Non-calculus survey of classical mechanics. Statics, kinematics, and dynamics of particles and systems; harmonic motion, waves, and sound. Prerequisite: Mt 112 or equivalent. (fall)

Ph 106 Electricity and Magnetism **5 credits**
Survey of electromagnetism. Electrostatics, magnetostatics, electromagnetic fields, dc and ac circuits. Prerequisite: Ph 105. (winter)

Ph 107 Survey of Modern Physics **5 credits**
Introduction to thermodynamics and optics. Selected topics in atomic, nuclear, solid state, and biological physics. Prerequisite: Ph 106. (spring)

Ph 110 Introduction to Astronomy of the Solar System **5 credits**
Apparent motions of heavenly bodies. Real motions and physical properties of the sun, moon, planets, and minor bodies of the solar system; telescopic observation available.

Ph 111 Introductory Stellar Astronomy **5 credits**
Survey of the nature and evolution of the stars; neutron stars, pulsars, black holes; nebulae, galaxies, quasars and the origin of the universe; telescopic observation available. Core science option.

Ph 200 Mechanics **5 credits**
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. Prerequisite: Mt 134. (spring)

Ph 201 Electricity and Magnetism **5 credits**
Electric charge, forces, fields, flux; Gauss' law; electric potential; conductors, dielectrics, capacitance; current and resistance; DC circuits; magnetic forces, fields; inductance; AC circuits. Prerequisites: Ph 200 and Mt 135. (fall)

Ph 202 Waves, Optics and Thermodynamics **5 credits**
Harmonic Motion; mechanical and electromagnetic waves; reflection, refraction, dispersion, interference, diffraction and polarization. Temperature, ideal gases, kinetic theory, second law of thermodynamics. Prerequisite: Ph 201. (winter)

Ph 203 Modern Physics **5 credits**
Special relativity; particle aspects of radiation; wave aspects of matter; uncertainty principle; Schrodinger equation; atoms, nuclei, and elementary particles. Prerequisites: Ph 202, Mt 136. (spring)

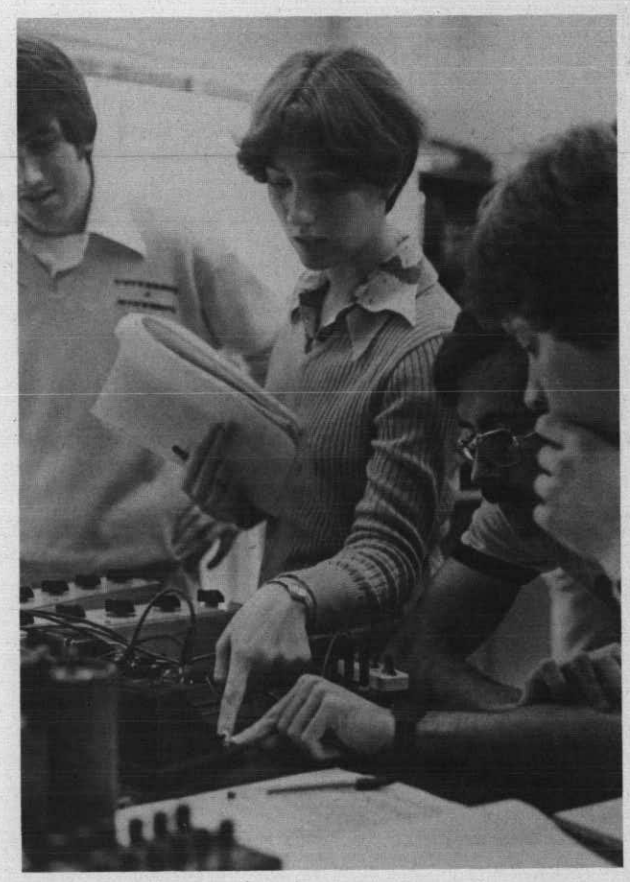
Ph 290 Measurement and Instrumentation Fundamentals **5 credits**
Measurement of quantities such as flow, position, strain, radiation, velocity, current, power, temperature, voltage. Conversion by transducers into electrical signals and processing for recording, observation or control. Prerequisites: Mt 134 and Ph 106 or 201. (spring)

Ph 291 Special Topics **1-5 credits**
Ph 292 Special Topics **1-5 credits**
Ph 293 Special Topics **1-5 credits**
Directed reading and/or lectures at a lower division level. Prerequisite: Permission of instructor.

Ph 300 Cooperative Work Study Assignment **0 credits**
Field experience in an approved job assignment in industry or government. Assignment will be selected for value in advancing the professional education of the student. Prerequisite: Permission of the Dean.

Ph 310 Intermediate Mechanics I **5 credits**
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 234. (fall)

Ph 311 Intermediate Mechanics II **5 credits**
Systems of particles; rigid body motion in a plane; general motion of a rigid body; Lagrange's equations; Hamilton's equations; small vibrations. Prerequisite: Ph 310. (winter)



Ph 330 Electricity and Magnetism I **5 credits**
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. (winter)

Ph 331 Electricity and Magnetism II **5 credits**
Magnetic materials; derivation and solutions of wave equations; plane waves in vacuum and material media; fields of a moving charge; accelerated charges and radiation; covariant formulation of electrodynamics. Prerequisite: Ph 330. (spring)

Ph 350 Acoustics **3 credits**
Oscillation; waves; reflection and refraction of sound waves; attenuation; superposition of acoustical waves; ultrasonics. Prerequisites: Ph 107 or 202, Mt 134. (fall)

Ph 361 Solid State Physics and Devices **5 credits**
Crystal structure and defects; interatomic binding; thermal and electrical properties; energy bands, carrier statistics and carrier transport phenomena. Semiconductor devices. Prerequisite: Ph 203. (fall)

Ph 375 Nuclear Instrumentation **5 credits**
Ionizing radiation. Nuclear decay processes, interaction of radiation with matter, instrumentation for the detection of photons, charged particles, and neutrons. Three lectures and two laboratories per week. Prerequisite: Ph 107 or Ph 202. (spring)

Ph 391 Special Topics **1-5 credits**
Ph 392 Special Topics **1-5 credits**
Ph 393 Special Topics **1-5 credits**

Ph 470 Nuclear Physics **5 credits**
Structure and properties of nuclei and elementary particles; symmetries and conservation laws; electromagnetic, weak, and hadronic interactions; nuclear models. Prerequisite: Ph 485. (spring)

Ph 475 Nuclear Fission and Fusion Reactors **5 credits**
Physics of fission and fusion reactors; experiments on operational parameters of fission reactors. Discussion of environmental impact. Prerequisites: Ph 203 and junior standing or permission.

Ph 481 Theoretical Physics **5 credits**
Matrices, determinants, Fourier series, integral transforms, tensor analysis, complex variables, coordinate transformations, partial differential equations, special functions. Prerequisite: Mt 234. (fall)

Ph 485 Quantum Mechanics **5 credits**
Wave-particle duality, the state function, the Schrodinger equation, one-dimensional problems, the operator formalism, matrices, central forces, angular momentum, spin, identical particles. Prerequisite: Ph 481. (winter)

Ph 491 Special Topics **1-5 credits**
Ph 492 Special Topics **1-5 credits**
Ph 493 Special Topics **1-5 credits**

Ph 497 Undergraduate Research **1-5 credits**
Ph 498 Undergraduate Research **1-5 credits**
Ph 499 Undergraduate Research **1-5 credits**

Premedical and Predental

George A. Santisteban, Ph.D., Adviser

Students wishing to enter professional schools of human, dental, or veterinary medicine or graduate school in biomedical studies, should matriculate in a program of studies leading to a bachelor's degree in any academic field which will give a broad training in the liberal arts and allow them to fulfill the proper premedical requirements in the physical and biological sciences. Premedical students may choose any academic major; most students elect biology, chemistry, physics, general science or psychology. Within the framework of any one of the degree programs, students obtain strong backgrounds in the liberal arts and humanities, as set up in the core curriculum. For further clarification of degree requirements and the core curriculum, see page 18 of this bulletin.

Most medical, dental or veterinary schools require the following undergraduate science sequences: Chemistry 114, 115, 116, 235, 236, 237, Biology 165, 166, 167, 310 and 326, 327 or 280, 330 (Bl 300 is required for predental students); and Physics 105, 106, 107. Professional schools also recommend calculus, biochemistry, or physical chemistry. Students are advised to consult the bulletins of the professional schools to which they wish to apply to acquaint themselves with specific requirements other than those listed. Students should plan to complete preprofessional requirements by the end of their junior year. Students should apply to the professional school during the summer or fall of the senior year. The Committee for premedical and predental studies at Seattle University interviews the student following receipt of the MCAT or DAT scores and prepares a composite recommendation which is sent to the school to which the student has sent an application.

Preoptometry

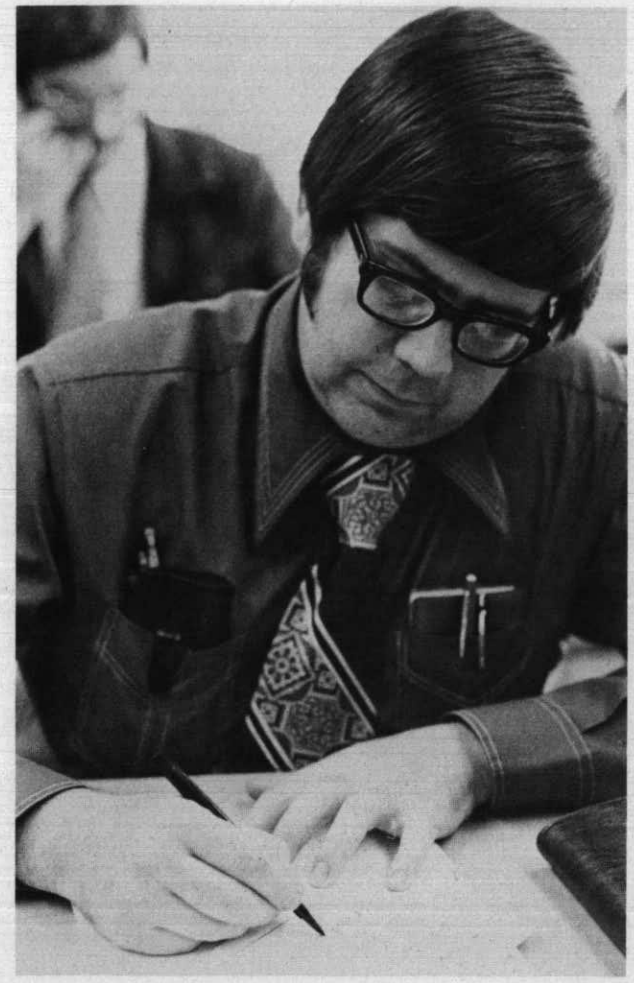
Ernest P. Bertin, S.J., Ph.D., Adviser

Preoptometry is a preparatory program for a career in optometry and is not a field of concentration. The basic requirement of the American Optometric Association is a two-year program,although the best preparation, and the one preferred by most professional schools, is a four-year undergraduate program leading to a bachelor's degree in one of the basic sciences.

Program

All students who desire a career in optometry should consult with the preoptometry adviser before their first registration in the program and as needed thereafter. There are several choices of fields open to the students, but in general, a broad background in biology, chemistry, mathematics and physics is required. Typically, 10 to 15 hours in each of these fields is desirable, with more emphasis placed on biology and physics. Should the student desire a bachelor's degree prior to pursuing the professional training, any of these fields would be acceptable if certain electives are taken, although the Bachelor of Science in General Science offers the best combination of courses.

GRADUATE SCHOOL



Graduate School

James J. Cowgill, S.J., Ph.D., Dean

(For detailed information on the Graduate programs see the separate Graduate School Bulletin)

Graduate School

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. In 1935 graduate courses became an integral part of the University's teaching education program. In 1976 the first doctoral program began.

Objectives

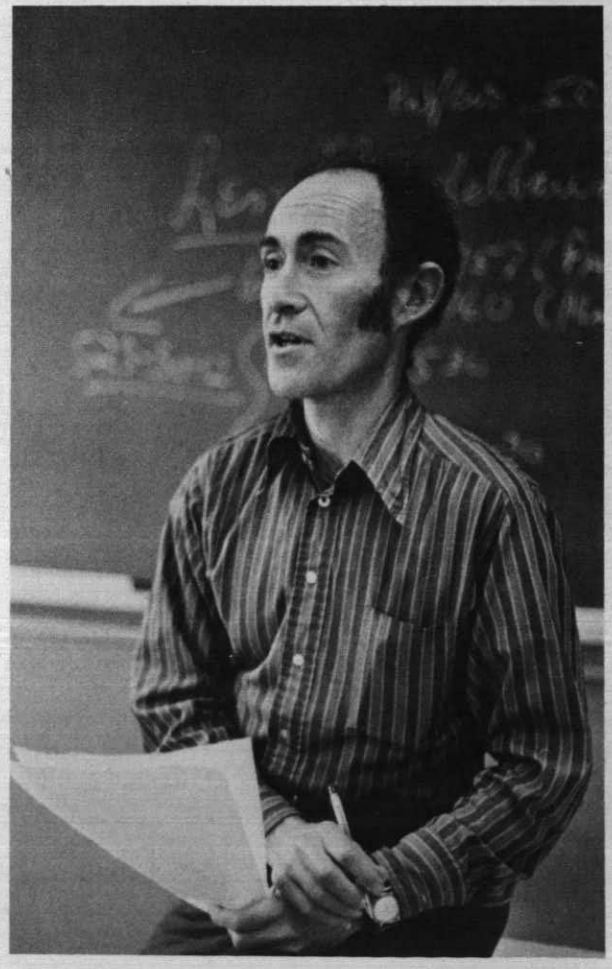
Graduate School programs involve courses advancing by gradation into greater complexity and profundity. The content of graduate courses is of a more advanced nature, the requirements in terms of bibliography, quantity and quality of thinking and writing are higher, and the degree of initiative, the organizing ability and originality expected is greater.

Only a limited number of undergraduate courses may be accepted for credit. Graduate students should not consider the mere literal fulfillment of requirements as conferring the right upon them to continued registration. Academic advancement and eligibility for degrees are contingent also upon recommendation and approval of the Graduate Committee of the school or department and the University Graduate Council.

Organization

Administration of the Graduate School and supervision of all programs leading to the master's and doctor's degrees lies with the Dean of the Graduate School and the Graduate Council. The Dean of the Graduate School and his 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. Academic transactions involving admission, registration and awarding of degrees are supervised by the University's Registrar. Actual admission to graduate study is granted through the Dean of the Graduate School in consultation with the appropriate graduate program director involved in the counseling of the applicant.



Degrees Offered

For admission and program requirements see the Seattle University Graduate Bulletin.

Graduate Degrees offered by the University are:

ARTS AND SCIENCES
- Master of Arts—English
- Master of Arts—History
- Master of Arts—Rehabilitation
- Master of Pastoral Ministry
- Master of Religious Education (summer only)

BUSINESS
- Master of Business Administration

EDUCATION
- Master of Arts in Education
- Master of Education

These two degrees may be earned with specialization in the following areas: administration, curriculum and instruction, curriculum and instruction (with emphasis in physical education), guidance and counseling and adult education administration.

- Master of Counseling
- Doctor of Education

PUBLIC SERVICE
- Master of Public Administration

SCIENCE AND ENGINEERING
- Master of Transportation Engineering

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Lt. Col. James G. Adams, M.S., Commanding Officer, ROTC

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Judy White-LeBlanc, B.S., Director, Child Care Center
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Anna E. Dillon, Director of Personnel
John B. Marlow, Manager, Plant and General Services
Genevieve Weston, B.A., Director, University Bookstore

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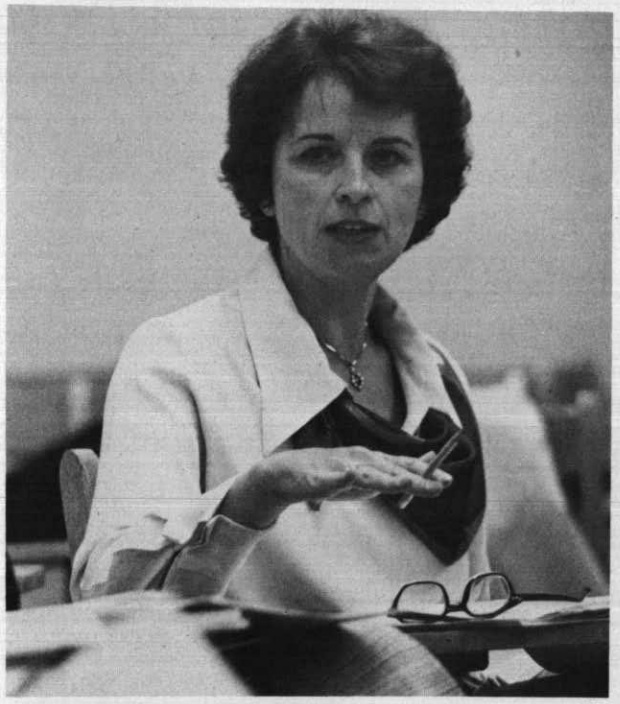

FACULTY

The dates following faculty names indicate initial and subsequent appointments or return from leave to the University faculty. Asterisks preceding names denote faculty members on leave of absence. Daggers (†) following names indicate Graduate School faculty members.

Clarence L. Abello, B.Econ. (1953)
Associate Professor of Spanish
B.Econ., 1933, University of London; Contrador Publico Nacional, 1937, Universidad Nacional de Buenos Aires, Facultad de Ciencias Economicas.

James G. Adams, Lt. Col., M.S. (1977)
Chairman, Military Science Department
Professor of Military Science
B.S., 1957, Oregon State University; M.S., 1973, University of Kansas.

Josef C. Afanador, Ed.D., (1975)†
Assistant Professor of Rehabilitation
B.A., 1963, Butler University; M.S., 1967, Purdue University; Ed.D., 1971, University of Arizona.

Richard H. Ahler, S.J., S.T.D. (1977)
Chairman, Theology and Religious Studies
Associate Professor of Theology and Religious Studies
A.B., 1954, Ph.L., 1956, St. Louis University; M.A., 1957, Marquette University; S.T.L., 1963, St. Louis University; S.T.D., 1975, Gregorian University.

Lewis E. Aldrich, Jr., Ph.D. (1968)
Chairman, Biology Department
Professor of Biology
B.A., 1950, Linfield College; M.S., 1954, Ph.D., 1960, Oregon State College.

Irene Allen, M.L., (1970)
Assistant Librarian
B.A., 1968, M.L., 1969, University of Washington.

Julian B. Andersen, Ph.D. (1970)†
Associate Professor of Business
A.S., 1958, Weber State College; B.S., 1960, Ph.D., 1966, Utah State University.

Englebert M. Axer, S.J., Ph.D. (1941; 1955; 1971)†
Professor Emeritus
A.B., 1930, Valkenburg, Holland; S.T.L., 1940, St. Louis University; M.A., 1941, Gonzaga University; Ph.D., 1949, Georgetown University.

Joan P. Baker, M.S.R.-R.D.M.S. (1977)
Director, Allied Health Technology
Assistant Professor of Allied Health
Member Society Radiographers, England, 1960; American Registry Diagnostic Medical Sonographers, 1975.

Mary C. Bartholet, M.S. (1958; 1965)
Associate Professor of Nursing
B.S., 1949, College of St. Teresa; M.S., 1958, St. Louis University.

Adele Palmberg Becker, Ph.D. (1974)
Assistant Professor of Foreign Languages
B.A., 1964, Michigan State University; B.A., 1965, Middlebury College; Ph.D., 1974, University of Illinois.

Ernest P. Bertin, S.J., Ph.D. (1957; 1964; 1971)
Professor of Chemistry
A.B., 1944, M.A., 1945, Gonzaga University; S.T.L., 1952, Alma College; Ph.D., 1957, University of Notre Dame.

William N. Bischoff, S.J., Ph.D. (1969)†
Research Professor of History
B.A., 1940, M.A., 1942, Gonzaga University; S.T.B., 1948, Alma College; Ph.D., 1950, Loyola University, Chicago.

Francis X. Bisciglia, S.J., M.A. (1963)
Associate Professor of Classical Languages
A.B., 1938, M.A., 1939, Gonzaga University; S.T.L., 1947, St. Louis University; M.A., 1952, Fordham University.

Roger E. Blanchette, S.J., M.A. (1966)†
Assistant Professor of Theology and Religious Studies
A.B., 1957, M.A., 1959, Gonzaga University; S.T.B., 1965, Alma College; M.A., 1965, University of Santa Clara.

Dorothy G. Blystad, B.A. (1963)
Assistant Professor of Education
B.A., 1947, Colorado University.

Hamida H. Bosmajian, Ph.D. (1966; 1974)†
Associate Professor of English
B.A., 1961, University of Idaho; M.A., 1962, Ph.D., 1968, University of Connecticut.

Conrad L. Boyle, M.B.A. (1977)
Assistant Professor of Marketing
B.S., 1959, U.S. Military Academy; M.B.A., 1964, University of Florida.

Susanne M. Bruyere, Ph.D. (1975)
Assistant Professor of Rehabilitation
B.A., 1970, D'Youville College; M.S.Ed., 1972, University of Southern California; Ph.D., 1975, University of Wisconsin.

John P. Burke, M.A. (1967; 1977)†
Assistant Professor of Philosophy
B.A., 1965, Gonzaga University; M.A., 1967, St. Louis University.

Norma Jean Bushman, M.N. (1960)
Associate Professor of Nursing
B.S.N., 1959, M.N., 1960, University of Washington.

J. Gerard Bussy, S.J., Ph.D. (1948)
Professor Emeritus
L.Ph., 1933, S.T.L., 1937, Gregorian; M.A., 1952, Seattle University; Ph.D., 1957, University of Washington.

David Michael Butler, M.A. (1975)
Assistant Professor of Drama
B.A., 1966, Seattle University; M.A., 1970, University of Washington.

Robert E. Callahan, Ph.D. (1977)
Assistant Professor of Business
B.S., 1967, M.B.A., 1969, Drexel University; Ph.D., 1977, Case Western Reserve University.

Robert J. Carmody, S.J., Ph.D. (1943)†
Professor Emeritus
A.B., 1931, M.A., 1932, Gonzaga University; S.T.L., 1939, Alma College; Ph.D., 1949, University of Washington.

Walter R. Carmody, Ph.D. (1947)
Professor Emeritus
B.S., 1923, University of Washington; M.S., 1924, Ph.D., 1926, Catholic University.

Emmett H. Carroll, S.J., M.A. (1973)
Assistant Professor of English
B.A., 1955, Gonzaga University; M.A., 1963, Gregorian University; M.A., 1966, Rutgers University.

Frank E. Case, S.J., M.A. (1975)†
Assistant Professor of Business
A.B., 1962, M.A., 1965, Ph.L., 1965, St. Louis University; S.T.M., 1970, University of Santa Clara.

Ben Cashman, Ph.D. (1962; 1967)
Chairman, Political Science Department
Professor of Political Science
B.A., 1949, University of Washington; M.A., 1950, Fletcher School of Law and Diplomacy; Ph.D., 1969, University of Washington.

Genard T. Catalano, Ph.D. (1977)
Assistant Professor of Electrical Engineering
B.E.E., 1963, City College of New York; M.S.E.E., 1968, University of Rhode Island; Ph.D., 1973, Arizona State University.

Chu Chiu Chang, M.A. (1956)
Associate Professor of Mathematics
A.B., 1942, Central Political Institute, Chungking, China; M.A., 1956, University of Washington.

Percy H. Chien, Ph.D. (1976)
Associate Professor of Civil Engineering
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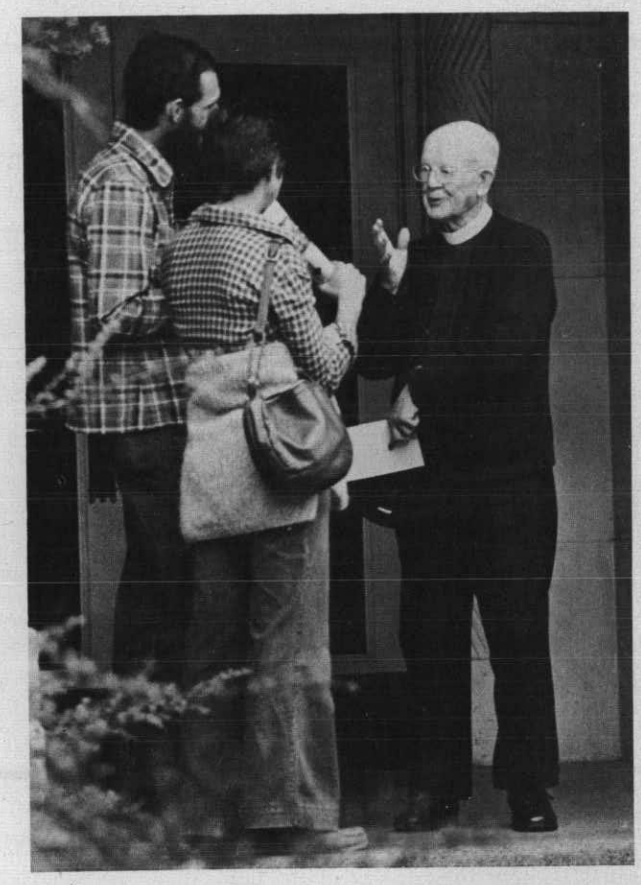

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WHERE TO WRITE

There is a central mail room on the campus. Information on specific items may be obtained by writing to the offices listed below and adding:
Seattle University
Seattle, Washington 98122
or, by calling the main switchboard at (206) 626-6200. Mail for student residence halls must be addressed to their respective locations.

Admission

Director of Admissions

Alumni

Executive Director of Alumni Relations

Athletic Program

Director of Athletics

Bulletins and Catalogs

Director of Admissions

Campus Ministry

Director of Campus Ministry

Career Planning, Placement, and job finding assistance

Director of Career Planning and Placement

Continuing Education

Director of Continuing Education

Correspondence relating to the general interest of the University

President

Counseling and Testing

Director, Counseling and Testing Center

Curriculum, scholastic problems, degree programs

The Dean of the particular school or Academic Vice President

Degrees and Graduation

Registrar

Financial Aid, Scholarships, Grants, Loans, Work-Study Eligibility

Financial Aid Counselor

Foreign Students

Director of Admissions or International Student Adviser

Gifts, Grants and Bequests

Vice President for University Relations

Grades, Readmissions, Student Records, Transcripts

Registrar

Graduate Study

Dean, Graduate School

Jesuit Faculty Residence

Father Minister

Minority Students

Director of Minority Student Affairs

Personal Welfare and Health

Vice President for Student Life

Publications

Publications Director

Public Information

Public Relations Director

Student Housing

Director for Resident Student Services

Teachers Certification and Teacher Placement

Dean, School of Education

Tuition, Payment of Bills, Refunds

Controller

Index

TIME	SKILLS	COMMENTS
3:45	11 LAPS	
3:50 - 3:55	Agility movement - sprints, jumps	
3:55 - 4:00	Catch & Pass	
4:00 - 4:05	2 on 1 Trap	
4:05 - 4:15	3 on 2	
4:15 - 4:20	Rebounding clips ① SHOT, FIND YOUR MAN ② PASS ③ REP ④ SHOOT	
4:20 - 4:25	2 LINE REBOUNDING DRILL	
4:25 - 4:30	CIRCLE BLOCK OUT	
4:30 - 4:40	WAR OF THE BUCKETS - 3s @ WAY FAST BREAK	
4:40 - 4:55	FREESHOTS & "20"	
4:55 - 5:10	REVIEW 1-4 OFFENSE; BASIC SERIES; PICK & ROLL SERIES	
5:10	SCRIMMAGE	

NOTES AND EVALUATIONS:

Unit 1	Unit 2	Unit 3	Unit 4
Susie	Paul	Rusty	Paul
Shannon	Debbie	Debbie	Shannon
Glenda	Alex	Glenda	Alex
Kim	CJ	CS	Mary
Mary	Lori	Lori	Kim

3/13(2)

4-2-4

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