VALPARAISO UNIVERSITY

Location
Valparaiso, Indiana—Population 25,000
45 Miles Southeast of Chicago; 13 Miles South of Lake Michigan

Campus Size
310 Acres, 70 Buildings.

Control
Independent

Religious Affiliation
Lutheran

Major Academic Divisions
(Approximate Enrollments, Fall 1995)
College of Arts and Sciences—1650
Christ College (Honors)—300
College of Business Administration—350
College of Engineering—325
College of Nursing—450
Law School—500
Graduate Division—280

Accreditation
The North Central Association of Colleges and Schools (All Programs)
The American Chemical Society
National Council for Accreditation of Teacher Education
National Association of Schools of Music
The Council on Social Work Education
The Accreditation Board for Engineering and Technology
American Association of Collegiate Schools of Business
Indiana State Board of Nurses’ Registration and Nursing Education
The National League for Nursing
The Association of American Law Schools
The American Bar Association
Indiana State Department of Education

Major Affiliations
The American Council on Education
The American School of Classical Studies at Athens
The Association of American Colleges
The Lutheran Education Association
The American Association of Colleges of Nursing
The American Society for Engineering Education
The American Assembly of Collegiate Schools of Business
The American Schools of Oriental Research
The Association of Graduate Liberal Studies Programs
The Center for Research Libraries
The Council of Applied Masters Programs in Psychology

Valparaiso University Information Operator—Call 219-464-5000

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ANNOUNCEMENTS FOR 1996-1997 SESSIONS

VALPARAISO UNIVERSITY BULLETIN (USPS 656-460)
Volume 70, July 1, 1996, Number 1

Published four times yearly (July, August, September and November) by The Lutheran University Association, Inc., Valparaiso, IN 46383-6493. Second class postage paid at Valparaiso, Indiana.
The General Catalog of Valparaiso University is designed to describe the programs of the University and to give that information needed to guide students in the successful achievement of their academic goals. Nevertheless, the material is for information only and does not make a contract between the student and the University. Students themselves are ultimately responsible for completion of the requirements for their degrees as well as for the value they receive from University programs.

The relationship between the University and its students is not custodial in nature. There is no special relationship with the University created by a student’s enrollment. The University does not assume any duty toward any student that is not otherwise required by operation of law or by the terms of this catalog.

In years when the General Catalog is not published an Announcement Bulletin gives information on important changes in courses, calendar, staff, program and policies. The University reserves the right to discontinue an academic program if it is deemed no longer central to the University’s mission.

Separate catalogs are issued for the School of Law, the Graduate Division and the Summer Session, which should be consulted for details about the related programs.

Non-Discrimination Policy. It is the policy of Valparaiso University to prohibit unlawful discrimination on the basis of gender, disability, race, color, age, veteran status or national origin in its educational programs, admission policies, employment policies, financial aid or other school-administered programs and policies. This policy is enforced by applicable federal and state laws and regulations, including, but not limited to, Title IX of the Education Amendments of 1972, Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title VII of the Civil Rights Act of 1964, and the Age Discrimination in Employment Act of 1967. Inquiries concerning the application of said federal regulations to this University may be referred to the University Compliance Director of Affirmative Action Plan.

Valparaiso University is authorized under federal law to enroll non-immigrant alien students.

Graduation Rate of Entering Freshmen. The graduation rate for all students entering Valparaiso University as first-time freshmen during the 1989-90 academic year was 72.5 percent. This graduation rate represents the percentage of students entering Valparaiso University as first-time (i.e., new) full-time degree-seeking freshmen during the 1989 Summer and Fall semesters who subsequently were awarded baccalaureate degrees by Valparaiso University within six calendar years (i.e., through August 1995).
December 13, Friday, 10:00 p.m. Instruction ends.
December 14, Saturday, Reading day.
December 16, Monday, 8:00 a.m. Final examinations begin.
December 20, Friday, 12:30 p.m. Final examinations end. Semester ends.
December 23, Monday, noon. Deadline for reporting all grades.

SPRING SEMESTER 1997
January 6, Monday. Orientation for new students; registration confirmation.
January 7, Tuesday, 8:00 a.m. Registration confirmation; registration for all new students, former students and students who did not participate in advance registration.
January 8, Wednesday, 8:00 a.m. Instruction begins.
January 15, Wednesday, 5:00 p.m. Deadline for adding first half short courses.
January 15, Wednesday, 5:00 p.m. Deadline for late registration for spring semester.
January 15, Wednesday, 5:00 p.m. Deadline for adding regular courses. All requests for adding a course during the official drop-add period (first six class days) shall remain at the discretion of the appropriate academic dean or department chair.
January 20, Monday. Observation of Martin Luther King's Birthday.
January 24, Friday, 5:00 p.m. Deadline to file for S/U grade for first half short courses.
February 7, Friday, 5:00 p.m. Deadline for withdrawing from first half short courses with grade of W.
February 7, Friday, 5:00 p.m. Deadline to file for S/U grade for regular courses.
February 24-February 28. Adjustment period for adding second half short courses.
February 28, Friday, 5:00 p.m. Deadline for arranging course intensification.
February 28, Friday, 6:30 p.m. Spring recess begins.
March 17, Monday, 8:00 a.m. Spring recess ends.
March 17-May 6. Dates for second half short courses.
March 20, Thursday, 5:00 p.m. Deadline for adding second half short courses.
March 25, Tuesday, 5:00 p.m. Deadline for withdrawing from regular courses with grade of W.
March 28, Good Friday. No classes.
March 31, Monday, 5:00 p.m. Deadline to file for S/U grade for second half short courses.
April 1, Tuesday. Last day to file application of candidacy for the associate's and bachelor's degrees to be conferred in December, 1997.
April 16, Wednesday, 5:00 p.m. Deadline for withdrawing from second half short courses with grade of W.
April 29, Tuesday. Last day for tests in courses of 3 credits or more. Last day to petition for change in date of final examinations.
May 6, Tuesday, 5:00 p.m. Deadline to officially withdraw from the University for Spring Semester. Last day to file petitions to change registration.
May 6, Tuesday, 10:00 p.m. Instruction ends.
May 7, Wednesday, Reading day.
May 8, Thursday, 8:00 a.m. Final examinations begin.
May 13, Tuesday, 12:30 p.m. Final examinations end. Semester ends.
May 14, Wednesday, noon. Deadline for grades for all candidates for all degrees.
May 16, Friday, 5:00 p.m. Deadline for reporting all other grades.
May 18, Sunday. 123rd Annual Commencement

Certain other dates are observed annually by the University: Reformation Day, Ash Wednesday, and Ascension Day.

Valparaiso University is dedicated to superior teaching based on excellent scholarship. As a scholarly community it actively engages in the exploration, transmission and enlargement not only of knowledge but also of the cultural and religious heritage of mankind, and it is proud to prepare men and women for professional service. This community values respect for learning and truth, for human dignity, for freedom from ignorance and prejudice, and for a critically inquiring spirit. The University aims to develop in its members these values, together with a sense of vocation and social responsibility. It holds that these values receive their deepest meaning and strength within the context of the Christian faith.

As a church-related university concerned for the needs of its students in all aspects of their development as well as for the problems which face society, it aims to graduate informed and sensitive men and women who will not only leave their marks on society but find lives of personal fulfillment as well. Proud of all its alumni who have carried its values into leadership roles in their communities, the church, social institutions, the nation and the world, it aims to continue graduating such potential leaders.

Under neither the control nor the authority of any church body, the University is an independent institution owned and operated by The Lutheran University Association. For more than half a century the University has been affiliated with congregations and members of The Lutheran Church–Missouri Synod. It enjoys, too, a partner relationship with members of all Lutheran churches, with all its constituents who share its aims and voluntarily support it, and with the communities of Northwest Indiana.
A rich diversity characterizes the University faculty (about 230 full-time and 80 part-time professors), but they share important skills and attitudes as well. Educated at leading research universities, they are competent in their fields. They care about students, an attitude made visible by the frequent individual consultations they invite. Above all, they enjoy teaching and believe that their work enriches not only their students' but their own lives. At Valparaiso University there are no teaching assistants; senior faculty members and newcomers alike can be found teaching introductory and advanced courses. The University embodies in its faculty an ideal of the teacher-scholar, one who recognizes that teaching is based on continuing scholarship. Many members of the faculty have achieved significant reputations in their particular fields and are pursuing, with marked success, grants from government and private foundations to promote research and improve instruction. In addition to The Cresset, a monthly review of literature, the arts and public affairs, published by the University, faculty edit from the campus two other national learned journals.

University governance, too, reflects campus-wide involvement. Through the University Council, composed of faculty, students, administrators, and staff, students share in the development of University policy, including academic programs. Final responsibility for all academic programs, especially those which require certification, is vested in the faculty.

The modest size of the University, its organization into six small colleges, and especially the strong personal commitment of the faculty enhance its teaching effectiveness. In a school like this, with its concentrated residential focus and the immediate relationships it fosters between faculty and students, educational life is more vital and more intense than would be possible at massive institutions or at commuter colleges. Valparaiso University consciously fosters this tradition in the selection of both its students and its faculty and in the development of its educational programs.

The Goals of Education at Valparaiso

While appreciating the importance of preparing students for useful careers, Valparaiso University holds to the ideal that its students want an education which treats them first as human beings rather than simply as future wage earners. These students want to think clearly, to analyze facts and ideas, to draw sound conclusions from their reasoning and to express themselves clearly and creatively. They want to understand their cultural and religious heritage, developing a sensitivity to the culture and the viewpoints of others while at the same time finding for themselves firm values and standards by which to live and make judgments. They want to become humane and responsible citizens in an ever changing society and to participate effectively in their institutions and communities.

There is no simple formula for acquiring these abilities. Every degree program at Valparaiso aims to assist students to attain these goals by offering a course of studies in general education which provides students with a broad base of knowledge and abilities, as well as in a particular area which leads to the mastery of concepts and tools of a single field of study. Both components, general education and the major field of studies, develop abilities in the student which go far beyond mere career preparation and provide intellectual enrichment for a lifetime.

Degrees

Associate in Science
Bachelor of Arts
Bachelor of Music
Bachelor of Music Education
Bachelor of Science
Bachelor of Science in Education
Bachelor of Science in Fine Arts
Bachelor of Science in Physical Education
Bachelor of Social Work
Bachelor of Science in Accounting
Bachelor of Science in Business Administration
Bachelor of Science in Civil Engineering
Bachelor of Science in Electrical Engineering
Bachelor of Science in Mechanical Engineering
Bachelor of Science in Nursing
Master of Arts
Master of Arts in Liberal Studies
Master of Education
Master of Music
Master of Science in Nursing
Master of Science in Special Education
Juris Doctor
Summary of the Academic Fields of Study at the University

Most of the fields of study listed below are available as majors and minors or as interdisciplinary programs. A few are available only as minors. Some fields offer further specialized concentrations within the major itself. The index of this Bulletin indicates the location for further information regarding these programs.

The College of Arts and Sciences:
- American Studies
- Art
- Biology
- Broadcast Meteorology
- Chemistry
- Classics
- Communication
- Computer Science
- Criminology
- East Asian Studies
- Economics
- Elementary Education
- English
- Environmental Science
- French
- Geography
- Geology
- German
- Hebrew Minor
- History
- International Economics and Cultural Affairs
- International Service
- Japanese Minor
- Mathematics
- Meteorology
- Modern European Studies
- Music
- Music Education
- Music Enterprises
- Music-Theatre
- Philosophy
- Physical Education
- Physical Education: Athletic Training
- Physical Education: Sports Management
- Physics
- Political Science
- Psychology
- Secondary Education Minor
- Social Work
- Sociology
- Spanish
- Theatre and Television Arts
- Theology
- Writing Minor

Christ College:
- Scholar and Associate Honors Program
- The Humanities

The College of Business Administration:
- Accounting (two degree options)
- Decision Science
- Finance
- International Business
- Management
- Marketing
- International Business and Global Studies Minor

The College of Engineering:
- Civil Engineering
- Electrical Engineering
- Mechanical Engineering

Interdisciplinary Programs:
- Applied Statistics Minor
- Business Administration Minor
- Environmental Studies Minor
- Film Studies Minor
- Ethnic Studies Minor
- Gender Studies Minor
- Human Aging Minor
- Liberal Arts Business Minor
- Manufacturing Management Minor
- Political Communication Minor

The College of Nursing:
- Nursing
- B.S.N. completion program for R.N. students

Programs of the School of Law and the Graduate Division are described in separate bulletins.

The Freshman Year

Even though they may express clear-cut decisions, college freshmen are often uncertain about their long-range career goals. The University fosters this openness by encouraging them to discover new interests while cultivating their current ones. All students, with the help of their academic advisers, design a program that allows them first to explore various areas of interest and, in due time, to develop a plan of study focusing on a major area of interest. A core of four courses, two each semester, involves all freshmen in common studies. A description of Freshman Seminar is found below. THEO 100, Introduction to Christian Theology, helps students to investigate Christianity, the religion which not only has shaped our society, but which also remains vital today in giving meaning to human life. HIST 100, The Western World in Global Perspective, is a course which leads students to understand how their own civilization has developed within the context of other world cultures. ENGL 100, Exposition and Argument, is a course which, like the others, requires students to increase their command of written and spoken English and their ability to analyze facts and ideas. Full descriptions of these courses can be found under their respective departmental headings within the chapter on the College of Arts and Sciences.

The Freshman Seminar. In this seminar, the student joins other freshmen to study in depth a single topic proposed by the instructor. Because of its clear focus, the course not only improves but investigates the skills central to a liberal education: critical reading and thinking, effective discussion, disciplined speech and writing. Students have valued the seminar experience, especially because it introduces them effectively, yet personally, to what college-level work means and because it develops their self-confidence at the beginning of their academic careers. Students indicate preferences among the various topics, different each semester. Usually they are assigned to one of their first three preferences. Topics of past seminars have included:
- Love and Marriage
- Diversity in Films and Television
- Stewardship of the Good Earth
- Making a Living, Making a Life
- We're Getting Older
- What's Happening Here?

Intercultural Studies

Intercultural studies at Valparaiso University brings together students of multicultural backgrounds and of different nations to explore together how to build a multiracial and intercultural society—often using the campus itself as a laboratory for learning. It is a program of academic courses, workshops, off-campus encounters and public service. Intercultural studies is not an academic major or minor. It is a program of learning to build an intercultural campus and to develop leadership for service by encountering the challenges of cultural diversity. The program is inspired by the annual all-campus commemoration of the birthday of Martin Luther King, Jr.
Academic Programs

An important feature of the program is a balanced involvement of students from different racial, ethnic and national backgrounds. Some activities in the program limit enrollment. Students are asked to register their interest at the Intercultural Studies Office in Huegli Hall, but there are no formal entrance requirements. A campus-wide orientation to the program is held annually early in the fall semester.

Activities include race awareness workshops, an Intercultural Leadership Development Seminar, research and service opportunities, and links with developing academic programs in American ethnic and international study. Many students participate in such student organizations as the Black Student Organization (BSO), Black American Law Student Association (BALSAA), Native American Student Association (NADA), Latino Student Organization (VIVA), and Association for Students Interested in Asia (ASIA).

Off-Campus Study
Programs in the United States

Washington Semester Program.
Through an agreement between Valparaiso University and the American University, Washington, DC, students from Valparaiso may spend one semester of their junior year (or some other semester by arrangement) at American University. The program is a set of courses designed to give the students an opportunity to see at first hand the broad range of the governmental and political activity in Washington through field visits, consultation with officials and evaluation sessions led by academic instructors. The program includes seminars on National Politics, Urban Politics, Science and Technology, International Development, Foreign Policy, Economic Policy and Justice.

The Valparaiso University course POLS 110 is a prerequisite to this program. This program is open to students who have participated in the Semester on the United Nations Program or the Washington Semester Program at American University. Students register at Valparaiso University for the Washington Consortium Semester and pay to this University the tuition and general fee. Expenses for travel, meals and lodging are paid directly by the students. The Washington Consortium Semester courses are accepted for full credit toward graduation from Valparaiso University.

Numerical Urban Semester.
Through an agreement between Valparaiso University and the American University, students from Valparaiso may spend one semester of their junior year (or some other semester by special arrangement) at Drew University. The program curriculum involves on-the-scene observations and analyses of the United Nations through direct contact with the United Nations meetings and headquarters.

Students register at Valparaiso University for the Washington Semester Program. Students register at Valparaiso University for the Semester on the United Nations and pay to Valparaiso University the normal general fee of this University and the usual tuition and fees of Drew University. Expenses for travel, meals and lodging are paid directly by the students. Semester on the United Nations courses are accepted for full credit toward graduation from Valparaiso University.

The Lutheran College Washington Consortium.
Valparaiso University is a member of the Lutheran College Washington Consortium, formally sponsored by the Lutheran Institute in Washington, D.C. The consortium offers a full semester of courses designed to introduce students to the range of governmental activities in Washington, with an emphasis on ethical dimensions of public service. The Core Course is thus entitled "Ethical Issues and Public Affairs." The director of the program places students in internships ranging from congressional offices to various public and private agencies.

The Valparaiso University course POLS 110 is a prerequisite to this program. This program is open to students who have participated in the Semester on the United Nations Program or the Washington Semester Program at American University. Students register at Valparaiso University for the Washington Consortium Semester and pay to this University the tuition and general fee. Expenses for travel, meals and lodging are paid directly by the students. The Washington Consortium Semester courses are accepted for full credit toward graduation from Valparaiso University.

For information on the Washington Consortium Semester see the Chair of the Political Science Department.

Semester on the United Nations.
Through an agreement between Valparaiso University and Drew University, Madison, NJ, students from Valparaiso may spend one semester of their junior year (or some other semester by special arrangement) at Drew University. The curriculum involves on-the-scene observations and analyses of the United Nations through direct contact with United Nations meetings and headquarters.

For two days each week of the semester the student is in the proximity of the United Nations in New York under the supervision of a member of the Drew University faculty.

Valparaiso University course POLS 130 is a prerequisite to this program. This program is open to students who have participated in the Washington Semester Program. Students register at Valparaiso University for the Semester on the United Nations and pay to Valparaiso University the normal general fee of this University and the usual tuition and fees of Drew University. Expenses for travel, meals and lodging are paid directly by the students. Semester on the United Nations courses are accepted for full credit toward graduation from Valparaiso University.

The Cooperative Education Program.
Cooperative education is a program which combines professional work experience with academic coursework. Paid employment occurs in industry, government, or other professional settings. The Cooperative Education experience is available in the Colleges of Arts and Sciences (page 49), Business Administration (page 156), Engineering (page 167), and Nursing (page 184).

All students in good standing who meet the grade point minimum declared by the particular college may participate in the program. Students may enroll in full-time (called alternating) or part-time (called parallel) programs, except in the College of Engineering where only the alternating program is available. Academic credit for Cooperative Education is granted by the college or participating department in which the student is enrolled. The number of co-op credits counted toward a major or a degree varies by college or department. Students should consult with faculty co-op coordinators to determine how co-op credits may apply to majors and/or degree requirements.

The Cooperative Education program enriches the total education of students by providing the opportunity to increase their sense of responsibility, judgment, and self-confidence through off-campus experiences that are closely integrated with their academic studies.

Students are considered to be continuing full-time students of the University while on co-op assignment.

Other Academic Opportunities

Internships. A number of internship opportunities have been established in several departments in the College of Arts and Sciences and in the College of Business Administration. Some of these are optional, others are required. These internships allow students to learn by direct experience under the supervision of a professional. Further information is given in departmental descriptions.

Service Learning. Service learning is a credit based educational experience in which students participate in an organized service activity that meets identified community needs. Students reflect on the service activity in such way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility.

Service learning provides an additional means for reaching educational objectives, and academic credit is appropriate for service activities when learning objectives associated with the service are identified and evaluated.

Unlike extracurricular voluntary service, service learning is a course-based service experience that produces the best outcomes when meaningful service activities are related to course material through reflection activities such as writing and small group discussions. Unlike practica and internships, the experiential activity in a service learning course is not necessarily skill-based within
academic load, accelerate their studies, or take maximum advantage of educational opportunities. Selected college students may take courses to work during the summer.

Valparaiso University students use the community of students who form a student body with special integrated courses and seminars which probe topics of interest not available to all students of the University. It is part of the University’s educational program administered through the Dean of the College of Arts and Sciences but is open to all students. More detailed information is given on pages 48-49.

Christ College. This College is itself one of the special educational opportunities available to all students of the University. It is an honors college which offers honors courses, special integrated courses and seminars which probe topics of interest not normally found in a single department. The College has a core community of students who follow a special course of studies in the area of general education but welcomes all students to inquire into its programs and to participate in it. Details are given on pages 149-153.

Summer Sessions. The summer program serves a variety of undergraduate and graduate students. Regularly enrolled Valparaiso University students use the Summer Session to assist in completing additional majors or minors, distribute their academic load, accelerate their studies, or take maximum advantage of educational opportunities. Visiting students from other accredited institutions take courses for transfer to their home institution.

Newly admitted students (freshmen, transfers and graduates) may begin their work during the summer. Selected high school students may take courses to facilitate their educational objectives. The first of two six-week terms begins immediately after the May Commencement. Students may earn up to seven credits in each six-week session and a total of 14 for the summer, the equivalent of a semester’s work.

Within each six-week term, a number of shorter courses with special pedagogical requirements are offered. Typically these last two or four weeks and usually involve field trips, field study (including international travel), and immersion experiences which use films, videos, or laboratories. Students normally may not take any other courses while taking a short course.

Details are available in a Summer Session Bulletin published at the beginning of the Spring Semester. See also page 195.

Lectures

Valparaiso University presents numerous lectures by scholars and public figures on topics of special interest as an integral part of its academic program. Various endowed and named lectures are also presented each year, bringing distinguished men and women to the campus to address the University community.

The Walter E. Bauer Endowed History Lectureship Fund, established by the family and friends of Dr. Walter E. Bauer, is an annual history department event to honor Dr. Walter E. Bauer.

Willis Boyd History Lectureship was established by the family and friends in honor of Professor Willis Boyd.

John Martin Gross and Clara Amanda Gross Memorial Lectures, established by Mr. and Mrs. Walter H. Gross, are delivered annually by outstanding religious leaders to the entire University community.

Vera Therese Hahn Memorial Fund for the Performing Arts will use interest from the fund to bring to the campus artists and lecturers who will contribute to the educational experience of students studying theatre and/or public speaking, said artists and lecturers to be selected by the Director of the University Theatre.

A. G. Huegli Lectureship in Church-Related Higher Education is a lectureship series established by Dr. A. G. Huegli to stimulate discussion on key issues concerning Church-related higher education.

Rae M. Huegli Memorial Lectures in Health and Hospital Care provide income for annual lectures in the College of Nursing. This endowed fund was established in memory of the wife of former President Albert G. Huegli because of her long interest in health services.

O. P. Kretzmann Lectureship in Christian Ethics, established in honor of the late President of the University, is delivered annually. Earnings from the O. P. Kretzmann Memorial Fund underwrite the expenses. At the direction of the President of the University, the lectureship may periodically be replaced with a memorial sermon on a topic related to Christian faith and social issues.

A. J. W. and Elfrieda LeBien Endowment Fund for Lectures on Liturgy provides income for lectures on liturgy and for publication of brochures related to the Chapel.

Monsanto Lectures on Tort Law Reform and Jurisprudence were established by Valparaiso University the Monsanto Fund. This annual series is funded by a generous gift from the Monsanto Fund eleemosynary arm of the Monsanto Company. The gift enables Valparaiso University to invite distinguished scholars and professionals to re-examine the theory of tort law as it has evolved in this country and to explore avenues for its reform.

J. W. Miller Memorial Lectures, delivered during Reformation Week by prominent religious leaders, were established in memory of Pastor J. W. Miller, who was an important influence in establishing Valparaiso as a Lutheran University.

Edward A. Seegers Lectures are presented annually by an eminent legal scholar. The lecture series honors Mr. Edward A. Seegers, a benefactor of the University who endowed the Louis and Anna Seegers Chair in Law. The series is under the supervision of the Seegers Professor of Law.

Percy H. Sloan Memorial Lectures in Art, established as a memorial to Percy H. Sloan, who endowed the Sloan Collection of American Paintings, are presented by prominent artists and art critics.

Thomas F. Staley Distinguished Christian Scholar Lectures were established by Thomas F. Staley to further the evangelical witness of the Christian Church, with a particular concern for college students.

University Lectures on various topics of current interest are presented from time to time at University convocations as an integral part of the University’s educational program.

Endowed Chairs and Professorships

Richar P. Baeppler Distinguished Professor in the Humanities, endowed by a challenge grant from the National Endowment for the Humanities and generous gifts from alumni and friends of the University, is a rotating two year appointment of a faculty member in a humanities discipline, established to honor the contributions of Richard P. Baeppler and to enhance the interdisciplinary teaching of the humanities in general education.

The Walter E. Bauer Professorship of Art History was established through a grant from the National Endowment for the Humanities and friends of Valparaiso University to honor the late Dr. Walter E. Bauer in recognition of his leadership in advancing the study of art and its history at Valparaiso University.

The Paul H. Brandt Professorship of Business was established by Paul H. Brandt to promote excellent teaching and leadership in the College of Business Administration.

The John R. Eckrich Chair in Religion and the Healing Arts, a University Professorship established by the Lutheran Charities Foundation of St. Louis in memory of John R. Eckrich, supports the study of the interrelationship of faith, ethics and health.

The Walter G. Friedrich Professorship of American Literature was established with the support of the National Endowment for the Humanities and Friends of Valparaiso University to honor the late Dr. Walter G. Friedrich, Valparaiso University professor of English, and to support and encourage high quality teaching in American literature.

The Frederick F. Jenny Professorship of Emerging Technology was established by Catherine Jenny to honor the life and work of Frederick F. Jenny, Jr. and to enable the selected College of Engineering faculty member to impart new knowledge to students.

The Emil and Elfriede Jochum Chair, a University Professorship established through a gift from Mr. Emil Jochum, supports the study of Christian values in public and professional life.

Kruse Organist Endowed Professorship was established by Frederick J. Kruse in memory of his parents, Edward A. and Anna L. Kruse, for advancing
the integral role of organ music at the center of the University's worship community.

The Richard E. Meier Professorship of Management was established by Richard E. Meier to advance the College of Business Administration.

The Fredrick A. and Mazie N. Reddel Professorship of Music, established by the Reddel family to honor Fredrick A. and Mazie N. Reddel, is a professorship in the Department of Music.

Leitha and Willard Richardson Professorship of Engineering was established by Leitha and Willard Richardson to promote excellence in the College of Engineering.

The Herbert H. and Agnes S. Schulz Professorship of Business was established by members of the Schulz family in honor of their parents to support the high goals of the College of Business Administration.

The Louis and Anna Seegers Chair in Law was established by Edward A. Seegers in honor of his parents to promote teaching and scholarship in the School of Law.

Special Academic Endowments

The Carl and Isabelle Brauer Business Endowed Fund. This endowment has been established to support activities in the area of business ethics.

The Carl and Isabelle Brauer Humanities Fund. The fund promotes professional activities in the humanities.

The Carl and Isabelle Brauer Music Endowment. This endowment is intended to enhance the music program of the University.

The Endowed Fund for Faculty Research and Faculty Development-1975 Senior Class Gift. This endowment supports both research expenses and faculty development projects.

The Faculty Research and Development Endowment. This fund is being developed by contributions from the faculty and from friends of the University.

The Albert G. Huegli Library Fund. This fund was established by friends to honor the former President of the University.

The O. P. Kretzmann Memorial Fund for Research in the Healing Arts and Sciences. Established by the Wheat Ridge Foundation, this endowment annually supports faculty research.

The Library Humanities Endowment. This endowment was created by a major grant from the National Endowment for the Humanities which was matched by friends of the University, and exists to fund acquisitions in the humanities.

The Sigrid Lindemann Faculty Development Endowment. This endowment was established by the late Helen Lindemann in memory of her daughter who had taught in the College of Nursing. Its earnings support professional activities and research in nursing.

The Mechanical Engineering Research Fund and the Civil Engineering Research Fund. These funds have been developed by the faculty of the College of Engineering to support research.

The Arnold H. Moeller College of Business Administration Endowed Fund. This fund is available to the College of Business Administration for purposes of underwriting professional growth.

The Moody Laboratory Fund. This endowment supports the development of laboratories in the Department of Mechanical Engineering.

The Rusch Memorial Library Fund. The earnings from this fund are used for library materials.

The Janet Sievers Accounting Faculty Development and Research Endowment. Established by alumni in memory of Professor Janet Sievers, this fund is used to support professional activities and research in the area of accounting.

The Judge Luther M. Swygert Memorial Endowment. Established by his family in memory of the late Judge, this fund supports the Moot Court Program of the School of Law.

The Endowed Ziegler Family Research Fund for the Humanities. This fund supports faculty research in the humanities.

In an age of global interdependence, the University strongly encourages its students to acquire part of their education abroad. A variety of opportunities exist which enable students to spend a summer, a semester or a whole year in another country as participants in study-abroad programs sponsored by Valparaiso University or by other institutions.

The University sponsors thirteen programs abroad, two of which (Cambridge and Reutlingen) are exclusively Valparaiso University programs; the other ten (Tübingen, Puebla, two programs in Paris, Hangzhou, two programs in Japan, Oak Hill in London, Anglia Polytechnic University in Cambridge, Athens, and Namibia) are offered in conjunction with host-institution programs. Students may study in other countries as well, through programs sponsored by different institutions. Specific suggestions and information are available through the Department of Foreign Languages and Literatures and the International Studies Office. Students considering study abroad should consult the Director of International Studies as well as their academic adviser early in their academic program, to ensure the coherence and continuity of that program.

Any financial aid that students receive while attending Valparaiso University, with the exception of campus employment, may be applied to the thirteen Valparaiso University-sponsored programs. Credits and grades earned through these programs are treated as though they were earned on campus.

In order to facilitate planning, both by students and the administration, students are encouraged to apply two semesters in advance of the semester in which they plan to participate. The deadline for applications is the sixth week of each semester, and selections take place in the seventh week. Although applications may be submitted through the sixth week of the semester immediately preceding the semester abroad, the number of spots available is smaller than when application is made two semesters in advance.

Students are encouraged to participate in study-abroad programs during their junior year. However, sophomore standing during the year or semester abroad is a minimum requirement for admission to all of the
programs except the Tübingen program; the latter requires junior standing for participation. Beyond this, the programs have varying requirements for admissions. Some programs have a minimum foreign language requirement for admission.

While the course offerings available through these programs vary considerably, students may frequently satisfy some Major, Minor, and/or General Education Requirements through courses taken in these programs. Students should consult with Department chairs and their academic adviser prior to participation in any program to verify that courses will satisfy certain requirements. General Education Requirements which have in the past been fulfilled or partially fulfilled by courses taken through these programs include the following: Fine Arts/Fine Arts-Literature, Foreign Language, History/Philosophy, Non-Western/Third World, Social Analysis. Participation in any VU study-abroad program fulfills the Global Studies Requirement.

For the programs in Cambridge, Reutlingen, Puebla, Hangzhou, and Namibia, students pay regular tuition, the general fee, the double-room fee, and a study-center fee. Students may count towards a major or minor in Arts-Literature, Foreign Language, History/Philosophy, Politics and Religion, may count towards a major or minor in Classics with the approval of the Chair of the Department of Foreign Languages and Literatures. Normally four courses constitute full-time study.

Valparaiso University's arrangement is for fall semester only.

Cambridge, England

Directed by a resident professor from Valparaiso University, the Cambridge Study Center provides an ideal setting for twenty students each semester to integrate their academic work with the rich heritage of Britain. Students live and study in facilities provided by the University, take four or five courses (12-15 credits) taught by distinguished British professors and the resident director, and participate in two or three group tours to various historical regions of Britain. British professors accompany students on these tours, helping them to integrate their cultural experience with their academic learning. Students may also take classes at nearby Anglia Polytechnic University by special arrangement. Two long breaks provide approximately four weeks of time for independent travel.

Program Requirements. Sophomore standing is required.

Program Curriculum. Students may take four or five of the following courses:

- ART 311 Art Appreciation............ 3 Cr.
- GEO 318 European Geography........ 3 Cr.
- HIST 351 English History and Culture 3 Cr.
- INTS 400 Understanding English Society........ 3 Cr.
- TTVA 335 The History of Theatre as Visual Art........ 3 Cr.

Courses may apply toward fulfillment of the following General Education Requirements: Fine Arts/Fine Arts-Literature (ART 311 and INTS 400), Social Analysis (GEO 318).

This program is available in either the fall or spring semester.

Hangzhou, China

Hangzhou is well renowned for its cultural history, its tea and silk production, and according to Chinese tradition, for being a paradise on earth. Hangzhou University, which lies just north of West Lake, is the host institution for students wishing to study Chinese language and culture. Students generally study Chinese intensively (15-18 hours a week) while having the opportunity to experience facets of Chinese culture through tours, lectures (in English), and demonstration classes of such arts as calligraphy and tai chi chuan. The Chinese Culture and Civilization course (EAST 395) involves the creation of a project which combines academic reflection with observation and experience. Additional courses may be offered, depending on the resident director. Students may also pursue independent study of China-related topics while in Hangzhou, with the assistance of faculty from East Asian Studies and other departments. Students may also pursue an independent research topic (see below under EAST 495). Classes are conducted from early September to mid-December, allowing for periods of travel.

Program Requirements. Sophomore standing is required, but there is no prior Chinese language requirement.

Program Curriculum. Students are placed in language courses according to an exam given at Hangzhou University. The following courses are offered:

- EAST 109 Intensive Elementary Chinese.................. 5 Cr.
- EAST 110 Intensive Elementary Chinese: Conversation....... 5 Cr.
International Study Programs

EAST 209 Intensive Intermediate
Chinese .................................................. 5 Cr.
EAST 210 Intensive Intermediate
Chinese: Conversation .......................... 5 Cr.
EAST 395 Chinese Culture and
Civilization .................................................. 3 Cr.
EAST 495 Supervised Reading and
Research .................................................. 3 Cr.

Two additional courses are offered by the resident director in his or her field of expertise.

EAST 109 and 110 are for students with no prior knowledge of Chinese and must be taken concurrently. EAST 209 and 210 are for students with prior knowledge of Chinese and must be taken concurrently. Students taking EAST 495 in China must have their proposal approved before going to China.

These courses may apply toward a major in East Asian Studies. EAST 109, EAST 110, EAST 209, and EAST 210 may apply toward the General Education Foreign Language Requirement. EAST 395 will satisfy the Fine Arts/Fine Arts-Literature and the Global Cultures and Perspectives General Education Requirements. Students using this course to complete a major in East Asian Studies may not use it to satisfy the University Course Requirement.

This program is available in the fall semester only.

Japan

Valparaiso University has two exciting exchange opportunities with sister universities in Japan. The program at Kansai Gaidai, which is located in the culturally rich area between Osaka and Kyoto, offers Japanese language instruction and a number of Asian studies courses taught in English, including topics in business, art, economics, and history. Students have the option of living with host families or in dormitories located on campus. Students pay all fees, including room, meal plan, and tuition to Valparaiso University. The program is available fall and/or spring semesters.

The program at Osaka International University also offers language study, but has the added feature of a two to three month internship with a Japanese company or organization. Students engage in intensive language study for the first semester, then spend an interim period in an internship setting, before returning to the Osaka International University campus and taking courses taught in English. Tuition fees are paid to Valparaiso University, and other fees, including room and board, are paid directly to Osaka International University. Students have the option of homestay with Japanese families or living in a dormitory. This program is offered for the whole Japanese academic year only (from September to July), and is especially suitable for business and engineering students.

Program Requirements. Two semesters of college-level Japanese, a grade point average of 3.00, and sophomore standing are required. References from academic advisers and professors are also needed, as well as permission from the Director of International Studies. Admission is competitive.

Program Curriculum. Students are placed in Japanese language classes according to proficiency tests given during orientation in Japan. Students are required to study the language, but are free to choose among the courses offered as long as full-time status is maintained. Internship placement in the Osaka International University program depends on availability and language proficiency.

Courses taken in Japan may apply toward certain General Education Requirements, or fulfill major and/or minor requirements in East Asian Studies, International Economics and Cultural Affairs, or Japanese. The course offerings vary from semester to semester, so students must consult with their academic advisers and the appropriate bulletin to match their course selections with requirements.

Namibia

As a result of a partnership with the Center for Global Education at Augsburg College, Valparaiso University offers a challenging study-abroad program in Windhoek, Namibia, in Southern Africa. Valparaiso University students live together with other students from the United States and Namibia, as well as with a family for a two-week stay in Northern Namibia. The program also includes a two- to three-week trip to Southern Namibia and South Africa.

Program Requirements. Sophomores, juniors, and seniors in good academic standing are eligible to apply. Enrollment is limited to fifteen students each semester, drawn from colleges and universities throughout the United States.

Program Curriculum. The theme for the spring semester is Women in Development: Southern African Perspectives, and the tentative offerings include courses in four of the following disciplines: political science, history, education, economics, interdisciplinary studies, and sociology. The theme for fall semester is Southern African Societies in Transition: The View from Namibia, with a range of courses similar to the spring offerings. Much of the coursework involves encounters with the people and culture outside the walls of the study center, thus making the semester an outstanding learning experience.

Students are able to go either semester.

Paris, France

As a cooperating member of the Central College (Pella, Iowa) program in France, Valparaiso University offers its students a semester or an entire year of study in Paris. The program is intended especially to strengthen students' facility in the French language and their knowledge of French manners and culture. Students enroll at the Sorbonne, where the medium of instruction in all classes is French. The full-year program is preceded by one month of intensive French language instruction at the Alliance Francaise. Full-year Advanced Program students may also enroll in the Business Program, which allows students to prepare for the certificat or the diploma given by the Chamber of Commerce and Industry of Paris, certifying proficiency in business French.

Program Requirements. French 204 or the equivalent, a grade point average of 3.00, sophomore standing, and approval of the head of the French section are required.

Program Curriculum. Upon arrival in Paris, students take a language test to determine their placement in either the Regular Program or the Advanced Program.

In the Regular Program, students take 13-15 credit hours of instruction in French language, literature and civilization.

In the Advanced Program, students take Advanced Composition and Conversation I for 8 credits (fall or spring semester) and Advanced Composition and Conversation II for 8 credits (spring semester); prerequisite is Advanced Composition and Conversation I.

Additional course offerings vary from year to year, but are generally available in the following fields: Art Appreciation, French Literature, History, Geography, Music, Philosophy and Political Science. Courses are 2 credits each.

In the Regular Program, courses may apply toward the French or the International Economics and Cultural Affairs major. In the Advanced Program, certain courses may apply toward the French or International Economics and Cultural Affairs majors, or toward certain General Education Requirements, including Fine Arts/Fine Arts Literature, History/Philosophy, Social Analysis.

This program is available for either a full academic year or for spring semester only.

Paris Internship Program

Students of French may also choose to participate in a study-abroad and internship program in Paris, administered by Boston University.

Program Requirements. Minimum requirements for enrolling in this program as a Valparaiso University student are completion of French 204 and an overall grade point average of 3.00. An internship is an enormously valuable experience, but one that places great demands on students' communication and work skills. For that reason, it is recommended that students with strong French language skills enroll in this program after completion of their sophomore year.

Program Curriculum. Students begin the program with eight weeks of intensive language course work to prepare them for the internship. Upon successful completion of the language component, students intern in French businesses in Paris for eight weeks. They are assisted in finding internships in four general areas: arts/architecture; journalism/communications; business/economics; and French politics. Past internships have included Galerie Maeght, Antenne 2 Télévision, l'Office de Tourisme de Paris, and le Ministère des Affaires Etrangères.

This program is one semester only. Students may enroll for either the fall or spring semester.
**Puebla, Mexico**

The Puebla Study Center is directed by a resident Valparaiso University professor, who also teaches one course. Students take the remaining courses at the Universidad de las Americas-Puebla. These courses are designed for foreign students and are taught by Mexican professors in English or Spanish. Valparaiso University students live in on-campus residence halls with Mexican suite-mates. Students with advanced Spanish proficiency may take courses in the regular curriculum of the University. Numerous field trips led by the resident director enhance the international experience. Ten courses are offered, including:

- Intermediate or Advanced Spanish
- Composition
- German
- History
- Cultural Studies

Program Requirements. Second semester German 2 is required. A total of four credits is required.

Program Curriculum. Students are placed into language courses by examination. Courses offered include:

**Soc 330** Points of Intersection: Mexican and the United States...3 Cr.

Intermediate or Advanced Spanish 4-12 Cr.

Additional course offerings vary each year. Past offerings include courses in Art, Psychology, and Political Science. Courses taught in English have included the areas of Economics and Political Science. Sociology 330 may fulfill the Integrative Studies requirement or part of the General Education Social Analysis Requirement. Other courses may apply toward the Spanish major or minor, or toward certain General Education Requirements, including Social Analysis, Fine Arts/Fine Arts-Literature, Foreign Language and/or Non-Western/Third World.

This program is available in spring semester only.

**Reutlingen, Germany**

The Reutlingen Study Center, located on the campus of its partner institution, the Fachhochschule für Technik und Wirtschaft, is under the direction of a resident professor from Valparaiso University. Students take four or five courses (13-16 credits), which are taught by the resident director and German professors from neighboring institutions.

**Tübingen, Germany**

Through a special one-on-one student exchange agreement with the Eberhard-Karls-Universität Tübingen, Valparaiso University may send several students there per year.

**American School of Classical Studies**

Valparaiso University is a corporate member of The American School of Classical Studies at Athens which provides Valparaiso University students opportunities for summer study in Greece. Two sessions, directed by the School's Gertrude Smith Professors, are offered annually. These sessions are designed for students who wish to complement their training in the language and literature of ancient Greece with an introduction to the country and its monuments. Housing and meals for participants are provided by the School. Enrollment in each session is limited to twenty students. Students interested in this program should consult with the head of the Classics section.

**Program Requirements.** Six semesters of Greek, History 311, and a grade point average of 3.50 are required. Admission to the summer sessions is highly competitive. Participants include college and university professors, graduate students and highly qualified upper class students.

**Program Curriculum.** The program of the summer sessions focuses on the relationship between the country (its monuments, landscape and climate) and its history, literature and culture. Each session is divided almost equally between the study of sites, monuments and museums in Attica and trips to places chosen by the director in Central Greece, the Peloponnese, Macedonia, Northwest Greece and the Islands. Participants are required to prepare reports on assigned topics.

Credits may be applied toward a Classics major or the equivalent. Junior and senior level courses are offered. The six-week Language and Orientation Program allows students to earn five elective credits towards the German major or minor requirements. Other courses may apply toward certain General Education and/or minor or major requirements; students must consult with relevant department chairs before departure for Tübingen.

This program is available for the full academic year only.

**American Schools of Oriental Research**

Valparaiso University is a corporate member of this organization, which has institutes in Jerusalem, Amman, Baghdad, and Cyprus. Several summer training programs in archeology are open to undergraduate students of this University through these institutes.
FACILITIES FOR LEARNING

Buildings

Much of the University campus has been built within the past few decades. The academic buildings offer students modern, well-equipped laboratories and studios as well as classrooms, seminar facilities, and performance spaces.

University Library Facilities

Moellering Library stands at the center of the Valparaiso University campus, directly across from the Chapel of the Resurrection, presenting a stately symbol of the integral link between knowledge and faith at the University. The Library is a center for academic learning, providing a repository for the inherited wisdom of the past and a key mediator for information accessible through the global network. To carry out this mission, Moellering Library and the Law Library, located at Wesemann Hall, provide to the University community specialized facilities for study and research; collections in print, electronic, and other formats; indexes, online catalogs, and other information finding aids; electronic interconnectivity for access to and delivery of off-site resources; assistance in locating, using, and evaluating information and instruction in skills that prepare students and scholars for independent life-long learning and free inquiry.

Moellering Library houses a collection that contains 408,000 bound volumes, 220,000 microforms, 2,858 current periodicals (including government periodicals), 6,000 sound recordings, 500 CD-ROMS, 485,000 government publications, and 75,000 maps. In addition, the Library subscribes to 400 electronic journals in business via PROQUEST/Business Periodicals OnDisc, a resource that also includes access to ABI/Inform indexing for multiple simultaneous users. Bibliographic access to the print collection of books, journals and government publications housed at each library is available through Galileo, the on-line public catalog. Users may search for holdings by title, author, subject, keyword, or call numbers in either library or from their home computers. Both libraries utilize on-line reserves and circulation systems, including patron renewal of books. Access to journal articles is provided through MiNe, the Moellering Information Network, a local area network of CD-ROM indexes to periodicals in education, business, nursing, sciences, and other subjects. MiNe network terminals are located throughout Moellering Library and access to MiNe from the residence halls was recently added. Print indexes and on-line search services supplement CD-ROM access to journal articles. The Library also provides access to the national bibliographic database (WorldCat), contents of proceedings (ProceedingsFirst) and the medical literature (Medline) via OCLC FirstSearch.

The Library faculty function as guides to knowledge in all its new and complex formats. They emphasize person-to-person contact, providing tours and bibliographic instruction sessions to introduce users to library resources in general or to the specialized research tools of individual disciplines. The professional staff includes a part-time music librarian and archivist in addition to the Library faculty, comprised of six librarians and the University Librarian. The librarians help students and scholars locate and select the best resources by providing assistance with periodicals, reference materials, and government publications and maps received via the U.S. Depository Program.

Document delivery services provide hands-on use of materials held at other libraries. To facilitate timely access via interlibrary loan, the Library participates in cooperative agreements with LVIS (Libraries Very Interested in Sharing), the Indiana Cooperative Library Services Authority (INCOLSA), and for materials held outside the state, the On-line Computer Library Center (OCLC). The Library also maintains membership in the Center for Research Libraries (CRL), a cooperative program providing cost-effective access to three million volumes of research-level materials. Commercial document delivery services are also available under certain circumstances. Interlibrary loans may be requested electronically.

The Law Library holds a collection of 123,000 bound volumes and 113,000 microforms, with 1,195 current periodical subscriptions. LEXIS and WESTLAW subscriptions add to the rich information resources available for use by Valparaiso University students and scholars.

Moellering Library and the Law Library provide the resources and services that connect the University community to the information that each member needs. New services and resources are selected, acquired, and organized to support the mission of Valparaiso University.

Electronic Information Services

Electronic Information Services provides a wide range of services for students, faculty, and staff and plans and manages the computing and electronic information environment. This dynamic information environment provides support for excellent teaching and learning, quality research, effective decision-making, efficient administration, and communication among the members of the University community.

Electronic information services include hardware and software to support courses and applications across the curriculum; access to national and international networks via INTERNET and video conferencing; access to PhoneMail and e-mail; training on available resources; consulting services; and an on-campus maintenance and repair center for IBM and Zenith computers.

Networks of DOS and Apple computers and on-campus resources are available in many student laboratories located in Schnabel Hall, the Center for the Arts, Gellersen Center, Moellering Library, Urschel Hall, the Union, Dickmeyer Hall and the Law School. General applications supported include word processing, spread sheets, databases, desktop publishing, statistics, and graphics. Many departments have specific applications available on the networks. In addition, many departments have computers located within departments to support special needs.

The student laboratories have a variety of peripherals, including plotters, CD-ROM drives, laser disk players, laser printers, color printers, and scanners. A VAX 4500 supports many academic applications.

There are several satellite dishes on campus which support instructional needs. Each residence hall has a computer cluster to meet the basic computer needs of students. In addition Lankenu and Wehrenberg Halls provide network access from student rooms.
### Graduation with Honors

Students who have been in attendance at Valparaiso University at least two years (a minimum of sixty credit hours) and who have maintained a standing of at least 3.80 in their work at this institution are graduated **Summa Cum Laude**.

Students who have been in attendance at Valparaiso University at least two years (a minimum of sixty credit hours) and who have maintained a standing of at least 3.60 in their work at this institution are graduated **Magna Cum Laude**.

### Semester Honors

Undergraduate students who achieve a standing of 3.50 in any semester except the last before graduation are awarded honors under the following restrictions:

1. The student received no grades of I or U at the official end of the semester concerned;
2. The student was registered for at least fourteen credit hours of work for that semester on campus in the College of Arts and Sciences, Business Administration or Nursing, at least fifteen credit hours in the College of Engineering, or at least twelve credit hours in an International Studies Semester, Special Off-Campus Semester or any other approved cooperating program.

Graduating senior honors are announced at Commencement and are based on the work of the last two semesters. The standing of 3.50 must have been maintained cumulatively for both semesters; restriction 1 above applies, and the total credit hours for both semesters must be at least the cumulative total from restriction 2 above (for example, in the College of Arts and Sciences, a total of twenty-eight credit hours for two semesters on campus or a total of twenty-six hours for one semester on campus and one semester special off-campus program, e.g., the Washington Semester).

### Departmental Honors

Students in many departments of the College of Arts and Sciences may be awarded honors in their field of study provided they meet the specific requirements described on page 48.

### Honor Societies

#### NATIONAL FRESHMAN HONOR SOCIETY

**Alpha Lambda Delta.** This national honor society recognizes women and men who achieve high scholastic standing during their freshman year.

#### NATIONAL SENIOR HONOR SOCIETY

**Mortar Board.** This national honor society recognizes outstanding men and women for leadership, scholarship and character.

### NATIONAL COLLEGE HONOR SOCIETIES

**Alpha Epsilon Delta.** This national honor society recognizes students who have achieved academic distinction while pursuing a pre-medical or pre-dental program.

**Beta Gamma Sigma.** This national honor society is restricted to students in business schools which have achieved accreditation from the American Assembly of Collegiate Schools of Business. Students in the upper ten percent of the senior class and the upper seven percent of the junior class of the College of Business Administration are eligible for membership.

**Sigma Theta Tau.** This national honor society for nursing elects outstanding upper class students to membership on the basis of scholarship, leadership and character.

**Tau Beta Pi.** Engineering students who have demonstrated high academic achievement, exemplary character and a breadth of interest in the field of engineering are eligible for membership in this national engineering society.

### VALPARAISO HONOR SOCIETIES

**Lumina Award.** This honor is presented in the spring of the junior year to students enrolled in the College of Arts and Sciences whose cumulative grade point average for the five preceding semesters is 3.60 (level of Magna Cum Laude) or above. It is awarded by the Arts and Sciences Scholarship and Advising Committee and the Dean of the College.

### DEPARTMENTAL HONOR SOCIETIES

- **Accounting - Accounting Society**
- **Chemistry - Phi Lambda Upsilon**
- **Classics - Eta Sigma Phi**
- **Decision Science - Alpha Iota Delta**
- **Drama - Alpha Psi Omega**
- **Economics - Omicron Delta Epsilon**
- **English - Sigma Tau Delta**
- **Finance - Financial Management Association Honorary Society**
- **French - Pi Delta Phi**
- **Geography - Gamma Theta Upsilon**
- **German - Delta Phi Alpha**
- **History - Phi Alpha Theta**
- **Home Economics - Kappa Omicron Nu**
- **Journalism - Society of Collegiate Journalists**
- **Marketing - Alpha Mu Alpha**
- **Music - Pi Kappa Lambda**
- **Philosophy - Phi Sigma Tau**
- **Physical Education - Phi Epsilon Kappa**
- **Physics - Sigma Pi Sigma**
- **Political Science - Pi Sigma Alpha**
- **Psychology - Psi Chi**
- **Social Science - Pi Gamma Mu**
- **Sociology - Alpha Kappa Delta**
- **Spanish - Sigma Delta Pi**
- **Theatre - Alpha Psi Omega**

### Awards and Prizes

**Bauer Award.** This prize is presented annually by the History Department to the history major who has written the best historical paper during the year. The award is made in the name of Dr. Walter E. Bauer, Distinguished Service Professor Emeritus of History.

**Bruce and Linda Eastmond Award.** These are annual awards presented to an outstanding senior student in the College of Engineering and an outstanding senior student in the College of Arts and Sciences.

**Roger and Hazel Guillamaunt Award.** This award is presented annually by the Department of Foreign Languages and Literatures to the French major who has demonstrated outstanding achievement and promise in French studies. It is given in honor of Professor Emeritus Hazel Guillamaunt and her husband, Roger.
Honors and Awards

The Victor Hoffmann Award. Each year the Beta Nu Chapter of Pi Sigma Alpha, national honorary political science organization, presents an award to the outstanding political science major voted by the faculty of the Political Science Department.

Howard K. Hughes Mathematics Prize. An annual award is presented to the Valparaiso University student who shows the greatest proficiency in the first four calculus courses. This proficiency is demonstrated through participation in the Hughes Mathematics Competition which takes place in the spring semester of each academic year.

Walther M. Miller Memorial Prize. This prize is awarded to a student who has majored in German and demonstrated excellence in German studies at Valparaiso University. It is awarded in memory of Walther M. Miller, Distinguished Service Professor Emeritus of German Language and Literature.

The Ronald G. Reidenbach Prize in Music. An annual award honors a graduating student of church music who has made a significant contribution to campus life. The award is made in memory of Ronald G. Reidenbach, alumnus of the University and musician to Lutheran churches in Ohio, Illinois, and Maryland.

Anna Zink Springsteen Prize. This prize is awarded to a senior, preferably an English major who has made a substantial contribution to campus life with special gifts in poetry composition.

Margot Ann Ueiling Endowed Scholarship Prize. Awarded annually to an undergraduate student who writes the best non-fiction prose essay.

Outstanding College of Business Administration Senior Award. Selected by the faculty of the College and awarded to the student who displays evidence of high scholarship, service to the university community, leadership qualities, professional attitude and regard for business ethics.

The Wall Street Journal Award. Awarded to the student who has made a significant contribution through service to the goals and development of the College of Business Administration. Seniors nominate and select the recipient.

Delta Sigma Pi Award. Awarded to a College of Business Administration senior with the highest cumulative grade point average after seven semesters of study.

Outstanding Senior Student Awards. Awarded to the outstanding senior student in accounting, finance, marketing, human resource management, and general management.

Crown International Inc. Decision Sciences Award. Awarded to a member of the Decision Sciences honorary who has the highest Decision Sciences grade point average.

Kingswood Hospital Award for Psychiatric Nursing. The Kingswood Hospital awards this prize to a senior nursing student selected by the nursing faculty for scholarship and dedication to working with the mentally ill.

Medals

Lumen Christi Medal. This medal is awarded to a lay person for distinguished service to Lutheranism. It is the highest honor Valparaiso University can bestow.

Medal of Merit. This medal is an award to recognize the outstanding service to society by the recipients through their chosen calling and by their exceptional activity in the advancement of the mission of Valparaiso University.

Student Life

The University accepts and practices the view that a liberal education concerns the whole person. Its residential and co-curricular life encourages students to develop their full potentials, complementing and enriching their academic curricula.

The Office of the Assistant Provost for Student Affairs coordinates the services offered to students and promotes a wide range of campus activities which enhance residential living at Valparaiso.

Student Conduct and the Honor System

Valparaiso University holds to the ideal of a community of Christian scholars living together in freedom and civility, in an environment conducive to Christian faith and supportive of the Christian ethic. A minimum number of rules and regulations is necessary for this community; these are found principally in the Student Guide.

Each student enrolling at Valparaiso University thereby accepts the rules, regulations and procedures as found in this catalog and the Student Guide. Conformity to the traditions and regulations of the University is expected. The University reserves the right to suspend or dismiss any student at any time when, in the judgment of its authorities, that action is deemed to be in the best interests of the institution. Such a decision is normally made by the Assistant Provost for Student Affairs on the
The student-initiated Honor System has a long history at Valparaiso University and is a strong distinguishing characteristic of the institution. It is in every way consistent with the highest principles of Christian ethics and morality. In sanctioning the Honor System, the University presumes that students are able and willing to accept the duties and responsibilities of honorable conduct for the sake of the Valparaiso University community. Before they can enroll at the University, all entering students must sign and submit a statement indicating above. The student-initiated Honor System has a recommendation of the Campus Judiciary Board.

and performing arts at Valparaiso University and is to educate the minds of students by opening their eyes and ears to the best of expression. The University offers its students a range of arts education opportunities through its general education curriculum; co-curricular activities in art, music, theatre, dance, and creative writing; and academic majors in the departments of visual and performing arts which permit students to major, the arts the focus of a liberal education for personal and professional development and for creative leadership and service. At Valparaiso University, the arts serve primarily the students, while also serving the faculty and staff and the larger community of the region.

Music
The Department of Music offers all students the opportunity to study and perform as singers and instrumentalists in an array of curricular and co-curricular ensembles. Students wishing to participate in selective ensembles may audition for the Valparaiso University Chorale, the Kantorei, the Chamber Orchestra, the Symphonic Orchestra, the Gospel Choir, the Jazz Band, and the Concert Band, as well as a variety of small groups including Broadway Revue, Flute Choir, Woodwind Quintet, String Quartet, Brass Ensemble, Combo, and others. Some ensembles are open to all students with no auditions required. These include the Choral Society and the University-Community Band. A number of additional student-organized performing groups are also sheltered by the Department. For an additional charge, students may sign up for private music lessons at any level, including beginning level, in voice, piano, harpsichord, organ, and most orchestral and band instruments.

Theatre
The University Theatre brings the best of classic drama and new plays to the Kroencke Hall stage. Offerings also include musicals, chancel dramas, and studio productions. Interaction with television arts provides creative opportunities for any student interested in dramatic arts. Theatre work is focused in performance, production, and administration. Advanced students regularly supervise in all areas.

Art
The Art Department offers basic studio courses in painting, drawing, design, graphic design, sculpture, photography, ceramics, fibers, and art education and art history. Galleries exhibit student work as well as distinguished work by visiting artists. The Sloan Collection of American Paintings is the core of the University Museum, a collection of nearly 1,300 works of increasing national reputation. Summer programs of study overseas provide students with immediate experience of Western cultural heritages.

Dance
While not yet a formal part of the University's curriculum, dance groups organized and maintained by students attract many participants. Co-curricular workshops as well as performances by visiting dance ensembles are important parts of campus activities.

Creative and Professional Writing
The English Department offers a minor with an emphasis in either creative or professional writing. WORDFEST annually brings established writers to campus and awards prizes for fiction, poetry, and non-fiction prose. The Cresset internships provides experience in editing and publishing. The Lighter, a campus literary magazine, presents student work in award-winning form.

Athletics
Valparaiso University offers a varied athletic program which assumes that sports can play a major role in college life by encouraging wide participation by the student body. The Athletics-Recreation Center is a major indoor facility. Outdoor facilities include tennis courts, eight all-purpose intramural fields, a hard surface track and fields for varsity baseball, football, and soccer. Although the University provides an experienced staff and takes every precaution to avoid injury to all participants in the intercollegiate and intramural programs, it assumes no responsibility for accidents; students participating in these activities do so at their own risk.

Intramural Sports/Campus Recreation
Valparaiso University is committed to a comprehensive program of recreational sports. A wide variety of team and individual sports are available throughout the academic year. Students are also encouraged to participate in the many informal recreational activities, special events, and clinics offered by the Athletics-Recreation Center staff.

Intercollegiate Competition
The women's division of the intercollegiate athletic program offers participation in basketball, cross country, soccer, softball, swimming, tennis, track and field. Membership is maintained in the National Collegiate Athletic Association and the Mid-Continent Conference. The men's division offers intercollegiate competition in football, basketball, baseball, soccer, cross country, swimming, tennis and track. Membership is maintained in the National Collegiate Athletic Association. The men's teams participate in the Mid-Continent Conference and the Pioneer Football League.

Publications and Broadcasting
Students are encouraged to work in any aspect of campus publications and broadcasting, including writing, editing, advertising, sales, photography and layout. A student/faculty Committee on Media is responsible for the policies and regulations governing these activities.

The Beacon. The Beacon, the University yearbook, is designed and edited by students. It offers experience in art work, editorial work and advertising.

The Lighter. The Lighter, a student literary magazine, is published twice a year and welcomes contributions from all members of the University community. Art work, especially photography, is also a feature of this publication.

The Torch. The Torch is the student newspaper. A weekly publication, it covers a wide range of campus activities and involves students interested in all aspects of journalism.

WVUR. The campus radio station WVUR (95.1 FM) offers students a wide variety of experiences in radio broadcasting and management.

Organizations
The Student Senate is empowered by the Instrument for Internal Governance of the University with executive, legislative and judicial powers over the student body. It is composed of upper class student representatives and officers elected in the spring and freshman representatives elected in the fall. The Student Senate
affords students the opportunity to assume the privileges and responsibilities of self-government. It also coordinates the major committees of Media, Residences, Union Board, Finance and Administration.

**Committee on Media.** The Committee on Media is responsible for policies and regulations of the University's student publications, as well as policies and regulations for the campus radio station, WVUR.

**Committee on Residences.** The Committee on Residences has responsibility for the policies and procedures regarding residence hall use.

**Administration Committee.** The Administration Committee recognizes and monitors all Student Senate recognized organizations.

**Finance Committee.** The Finance Committee is responsible for developing and submitting a budget to the Student Senate and for reviewing all requests for special appropriations by student organizations.

**The Valparaiso Union Board.** The Valparaiso Union Board develops, presents and coordinates social, recreational and educational events and programs to broaden student acquaintances and improve student life, and establishes policies for the use of the Valparaiso Union.

**Fraternities and Sororities**

Active chapters of national Greek social fraternities on campus include Delta Sigma Phi, Phi Delta Theta, Phi Mu Alpha, Phi Kappa Psi, Phi Sigma Kappa, Pi Kappa Alpha, Sigma Chi, Sigma Phi Epsilon, Sigma Pi, Sigma Tau Gamma and Theta Chi.

Greek social sororities include Alpha Phi Delta, Alpha Xi Epsilon, Chi Sigma Xi, Delta Chi Epsilon, Delta Phi Kappa, Gamma Phi, Kappa Psi Omega, and Phi Beta Chi.

The governing body of the sororities is the Intersorority Council. The governing bodies of the fraternities are the Fraternity Forum and the Fraternity Presidents' Council. The Greek Social Responsibility Committee is made up of the presidents of all the groups named above. It governs their joint activities together.

Fraternities are housed in their own individual residences. Sororities are housed in Scheele Hall, in individualized units with chapter rooms on the main floor of the sorority complex.

**Alpha Phi Omega.** Alpha Phi Omega is the nation's largest service fraternity founded to develop leadership, promote friendship and give service to the campus, community and nation. Alpha Phi Omega is a co-ed organization whose goals are the development of the individual through both service and social events. Active membership in this service fraternity is open to all students of the University, and in no way interferes with membership in a social fraternity or sorority.

**Clubs and Interest Groups**

Clubs and interest groups abound on the campus. They focus on a variety of activities including academic and professional interests, hobbies, recreational activities, cultural interests, activities connected with the Chapel, religious interests, politics and service projects.

**Black Student Organization.** The Black Student Organization (BSO) is devoted to maintaining a cohesive African and African-American community on campus, to promoting knowledge of African culture and to providing a forum for the expression of the ideas and goals of African and African-American students.

**Latino's in Valparaiso for Excellence (LIVE).** LIVE is a student organization who's primary goal is to support and elevate the interest of Latino and Hispanic students. In addition, LIVE promotes activities and programs that encourage an appreciation and awareness for Latino and Hispanic culture.

**Valparaiso International Student Association (VISA).** VISA sponsors a number of social and cultural events throughout the year aimed at bringing cultural differences. Most notable is the annual international dinner, which features cuisine from around the world and an international talent show. Although VISA serves as the main support group for international students, it welcomes American members. One new feature of the campus is the International Student House. It serves as the headquarters for VISA and has rooms for studying, cooking, meeting friends, and many other purposes. The International Student House is a tangible symbol of Valparaiso University's commitment to serve international students and to demonstrate the importance of international relationships between all members of the University community.

**Volunteer Service Center**

The Volunteer Service Center provides a clearinghouse for students to volunteer their time in service to the community. Local agencies in need of volunteers provide structured opportunities. Students learn the rewards of volunteerism, build self-esteem and social responsibility, and provide help to those in need. Students placed by the Volunteer Service Center serve in a variety of positions, including tutoring adults, teenagers and children; visiting with the elderly, working with handicapped and mentally challenged persons, and helping with Christmas in April.

**The Valparaiso Union**

**The Valparaiso Union, a community center for all the members of the campus, strives to provide quality facilities, services and conveniences needed by members and guests of the University. The Union also develops programs that are responsive to student developmental needs and to the cultural, social, recreational, and educational needs of the campus community.**

The Valparaiso Union provides students with a place to meet, relax and study; a headquarters on campus for commuters; a place where students, faculty and administration can develop acquaintances outside the classroom; a place to entertain and be entertained at programs, dinners and receptions; a place for recreation; and an information and service center.

As one of Valparaiso University's largest student organizations, the Union Board provides films, lectures, concerts, dances, outdoor recreation trips, mini-courses, coffeehouses, special events activities, diversity programs, trips to Chicago, and much, much more.

The Union staff help plan and present such programs as the Union Jazz Festival, the Heritage Festival, the Madrigal dinners, College Bowl (an academic question and answer tournament), merchandise sales in the lounge, and performing arts events. Many events planned by student organizations, faculty and staff departments also take place in the Union. The Beacon, Student Senate, Union Board and other student organizations have offices, work and meeting spaces in the Union where they plan programs and perform their duties.

The Valparaiso Union also offers students the opportunity to explore and develop their leadership potential through participation in student activities. These experiences allow students to explore the dynamics of effective leadership, making the Union an important place where education takes place, as students and others come together on common ground to meet and exchange ideas. Assistance is available in the Union to support student groups with their activities and to promote the development of leadership skills.

**The Union Director's Office** processes reservations for meetings and events that take place in the Valparaiso Union and in academic buildings and handles the arrangements for numerous summer conferences, camps and workshops. The Union Director's Office also compiles, prints and distributes the following: a monthly Students Activities Calendar, a weekly listing of events called What's On and VU and Cultural Arts Calendars to help inform the campus of activities.

The newly renovated Union Games Area offers billiards, electronic games, table soccer and table tennis. Outdoor recreation equipment availability allows students the opportunity to pursue a variety of outdoor recreational activities. Equipment such as tents, backpacks, cross country skis and sleeping bags are available for rental. Schwin mountain bikes can be checked out free of charge. Union Board regularly offers trips such as skiing, canoeing, camping, whitewater rafting, and backpacking.

Recent Union renovation resulted in a new 24-hour lounge, computer lab, commuter student facilities, student organization offices, meeting rooms, and a social activities space called The Round Table. With the addition of a new elevator and new restrooms, the Valparaiso Union is fully accessible to persons who are physically challenged. New safety systems include fire and smoke alarms and emergency lighting.

**Union Adworks** is available to any campus group to publicize programs. Campus events may be advertised through posters, flyers, buttons, brochures, announcements and mail box stuffers. The Union Information Desk provides answers to questions and sells popcorn.
candy, gum, sundries, newspapers, tickets for trips and special programs, and discount movie tickets. Also offered are magazines to read during visits to the Union, a fax machine service, a copy machine, charge, lost and found, a dictionary, and phone directories. Other Union services include a ride board, a cash machine, bulletin boards, art exhibits, televisions, audio/visual services, and event planning assistance. Union Board offers a telephone activities hot line - #5555 - a prerecorded message listing the latest in campus activities.

Dining Services operates Jesters, which provides daily breakfast, lunch and dinner items and a food operation in The Round Table. Dining Services also provides catering services for: banquets, luncheons, and receptions.

Campus Ministry
The ministry of Word and Sacraments centers in the Chapel of the Resurrection. A ministry is also carried on in the residence halls and fraternity houses. Students and faculty participate with the University Pastor and University Associate Pastor in preparing a wide range of services. In addition to holding services on Sunday and throughout the week at various times, the University has appointed members of the community may come together for prayer and praise. Pastoral counseling is available at any time.

Students participate in the Kantorei, as well as other choirs which sing for chapel worship services; serve as organists for daily services; and serve as cantors and instrumentalists for Sunday and weekday services. Students plan chapel decorations and decorate the chapel for the seasons of Advent, Lent, Holy Week and Easter, as well as assist in the contribution of the arts for other chapel services.

Students chair chapel ministry groups of worship, social concerns, and visitation, as well as Chapel Service groups such as Altar Guild, acolytes and ushers. All students are invited to participate in these and other areas of ministry.

St. Teresa's, the Roman Catholic Student Center at Valparaiso University, is located across the street from the university campus at 1511 LaPorte Avenue. The center is staffed by a full-time chaplain and a lay minister. Sunday and weekday Masses, as well as a full program of pastoral ministry, are conducted at the center.

Every courtesy is shown to pastors of other Christian churches in Valparaiso who wish to conduct a ministry for students of their denomination. A listing of area churches and the time of worship is available in the chapel office.

Services For Students
Leadership Programs
The office of the Assistant Dean for Greek Affairs and Leadership Programs provides students the opportunity to explore and develop their leadership potential through programs such as the Campus Leaders Workshop and Emerging Leaders Workshop. These experiences allow students to explore the dynamics of effective leadership.

The Office of Multicultural Programs
The Office of Multicultural Programs, located in Kretzmann Hall, provides services and programs designed to assist the University in addressing the specific academic, cultural, and social interests and needs of underrepresented groups. Most notably African-Americans, Asian/Pacific Islanders, Hispanics, Latinos, and Native Americans.

The Office structures events throughout the year that serve to promote cross-cultural understanding and education, as well as preserve ethnic integrity. An integral part of the program is the Martin Luther King, Jr. Cultural Center located next to the School of Law. It offers the resources of a community liaison, a library, a computer room, a kitchen, and a lounge.

The Director of Multicultural Programs serves as a liaison and supports and provides services to many campus and community organizations and programs. The Director works closely with the Black Law Student Association (BLSA), the Black Student Organization (BSO), Latino’s in Valparaiso for Excellence (LIVE), the M & M Mentor Program, and the West Side High School Partnership Program. The Director also serves on a number of committees in an effort to support underrepresented groups and influence necessary change.

The Career Center
The Career Center is a comprehensive career center offering a wide array of services to students and employers. Located in Alumni Hall, the Career Center houses a career library, conference/workshop room, student interview lounge, private interview rooms, and staff offices.

Services include a computerized career guidance system; focus and career counseling; cooperative education information, orientation, and placement assistance. Through the Resume Expert program, individual resume assistance is provided, including the electronic transmission of resumes to employers. On-campus interviews with a variety of employers and graduate schools also occur in the Career Center. Listings of full-time, part-time, internship and summer job opportunities are provided in the bi-weekly Job Opportunities Bulletin (J.O.B.). A comprehensive career library comprised of books and video facility, graduate school catalogs and directories, and employer literature, also assists students in formulating and implementing post-graduation plans. Further assistance is provided through the Career Services Network.

Workshops offered by the Career Center inform students about cooperative education, on-campus interviewing, job fairs, and graduate schools. Two weeks of video interviews feature employers who donate a day of their time to assist students with interviewing skills.

The Career Center hours are 8 to 5, Monday through Friday. Appointments with a professional staff member may be made in person or by calling 464-5005. The Web site for the Career Center is http://www.valpo.edu/career/careerhomepage.html.

Student Counseling and Development Center
The Student Counseling and Development Center offers individual and group counseling sessions for persons with emotional, interpersonal, or academic skills problems; psychological testing of personality and personal development; training on a wide variety of topics; a personal development library; crisis intervention; and consultation services. The center is staffed by doctoral and masters level psychologists, counselors, social workers, a consulting psychiatrist, and support personnel. The services provided emphasize both the prevention and remediation of problems within students and groups of the university and are confidential and free of charge. The counseling relationship is founded on respect for the individual and belief in his or her potential for growth. In the counseling process, the student and the professional work collaboratively to set and achieve mutually agreed upon goals. Choice and responsibility by the individual are emphasized.

The Student Counseling and Development Center works cooperatively with the Career Center in providing career counseling and in maintaining the Career Resource Library. The Center also coordinates efforts with the Academic Support Center in identifying students who are at risk academically and in providing study skills training and support to increase a student’s chance for academic success. Programs on academic skills building are available to all segments of the campus community through the counseling center. Additionally, the Center’s Outreach Services include the provision of numerous seminars and workshops on topics related to mental health and wellness.

Sexual Assault Awareness and Facilitating Education Office
The Sexual Assault Awareness and Education Office at Valparaiso University provides advocacy services to individuals (male and female) who are survivors of sexual assault. Advocates meet with survivors at their request at a confidential location and provide the survivors with information about their rights, options that exist in dealing with the assault, and support in their decision making. All of this occurs within the realm of confidentiality. The SAAFE Office provides individual and group counseling to survivors. The Office also provides sexual assault awareness presentations to the campus community.

Office of Alcohol and Drug Education
The Office of Alcohol and Drug Education serves to coordinate substance abuse prevention efforts on campus through proactive outreach programs to student residences, in conjunction with the curriculum and by means of peer education.
It also offers education to at-risk students through the combined efforts of a referral, assessment and group program. A certified alcoholism counselor provides screening and referral services to those experiencing problems with substance abuse. Students who have been affected by familial alcoholism may be seen in individual or group settings.

**Academic Advising**

One of the benefits of an education at Valparaiso is the availability of experienced faculty members for personal and academic advising. Many of these sessions develop informally. A formal system of advising is in place in each of the colleges.

Entering students are assigned to an academic adviser to assist them in selecting a curriculum, meeting University requirements and making the most of their studies.

In the College of Arts and Sciences, students who have not declared a major are assigned a general adviser. As soon as students declare a major, they are assigned to a departmental adviser by the chair of their major department. Students in a special program are assigned a program adviser. The major field or interdisciplinary program of study should be chosen by the beginning of the sophomore year. Some majors and programs, for example teacher certification and pre-med, require students to declare their intentions and begin the programs at the beginning of the freshman year to make it possible to complete the degree or certification requirements in four years.

All students must have their proposed schedule for the next semester signed by their academic adviser before it is filed with the registrar. If the student has more than one adviser (e.g., departmental, special program, Christ College), the student should have the signature of the special program adviser, after consulting with the other adviser(s). Advisers' signatures indicate only that they have counseled the student, not that they approve the schedule. Nor does the adviser's signature guarantee that the schedule will meet the requirements of the student's program.

**Students With Disabilities**

Valparaiso University, through its Mission Statement, strives to maintain a supportive environment which will promote the learning and well-being of all students. The following information is provided to assist those students with disabilities who are seeking academic adjustments or other special services.

Inquiries about assistance to meet special needs should be directed to Associate Dean Katharine Antommaria, Director of the BRIDGES Program, an academic support service for students with disabilities.

The provision of auxiliary assistance is primarily the responsibility of the Department of Rehabilitation Services of the state in which the student maintains legal residence. If the request for assistance is denied by the local agency, Valparaiso University's provision of academic adjustments, or other special services will be based upon a case by case analysis of an individual student's need.

In order to be considered for ancillary aids, academic adjustments, or other special services, the student:

1. Should apply to his/her local Department of Rehabilitation Services Office at least 6 months before attending Valparaiso University, or as soon as possible upon diagnosis of a disability, in order to allow time for funding to be allocated.
2. Should be admitted to one of the colleges of the University.
3. Must submit a written diagnosis of the disability and its impact on learning from appropriate professional personnel.
4. Should notify the Director of the BRIDGES Program in writing at least 5 months before the first day of classes, or as soon as possible upon diagnosis of a disability. Such notice is required to give the various academic and service areas a reasonable period of time to plan to meet the individual's special needs.

**The Writing Center**

At the Writing Center in Schnabel Hall students will find all the tools for writing close at hand. Students can discuss writing projects with faculty and student tutors who will help with planning, revision, editing, and proofreading. Handbooks, various dictionaries and stylebooks, ample table space, and many computer resources make the Writing Center an excellent place of work.

**Tutoring**

Mortar Board, an honor society, provides tutorial help to students in need of assistance.

**The Valparaiso University Student Health Center**

The Student Health Center provides an environment that enhances dignity and encourages individual student responsibility for maintaining health. The Health Center is interested in promoting good health practices as well as preventing sickness and accident among students. The services include assessment by a nurse and/or physician and minor laboratory tests. Illnesses or accidents which require more extensive treatment or services are referred to Porter Memorial Hospital adjacent to campus at 814 LaPorte Avenue.

A fee-for-service gynecological and consultation service is available for all full-time undergraduate and full-time law students through the Life Choices Center located in the Health Center. A nurse practitioner is available to see patients by appointment.

The Health Center will also administer allergy injections on a fee-for-service basis. The Health History/Required Immunization form must be on file. In addition, a letter will also be needed from the physician who ordered the medication, listing the following: allergy physician's name, address, and phone number; student's allergies; recommended injection schedule; vial contents; serum concentration; special instructions; and instructions for missed injections.

**The Valparaiso University Federal Credit Union**

This is a financial cooperative whose membership is open to all students, alumni, members of the faculty and employees of the University, as well as their respective families. Its purpose is to provide the University community with a full service, convenient financial facility. The Credit Union is governed by a board of directors elected by the membership and is supervised by the National Credit Union Administration, an agency of the United States Government. All accounts up to $100,000 are insured by the National Credit Union Administration. Special student checking accounts and student Visa cards are available through the Credit Union.
**College of Arts and Sciences**

The College of Arts and Sciences, the largest college of the University, consists of twenty-one departments and provides the University with its program of general education for all students as well as advanced work in the liberal arts, the sciences and in several professional areas. Each degree in the College consists essentially of two parts:

1. The general education component;
2. The major field or interdisciplinary program.

To these two parts, the student adds elective courses chosen from all the offerings of the University, often including a minor or minors.

**General Education**

An overview of the general education program is presented on page 10. Although this pattern applies to every degree in the College, certain variations are specified in the detailed presentation of degree requirements below.

**The Major Field**

Each student must complete a major field of study or an interdisciplinary program. Ways of meeting this requirement are presented in detail in connection with the degree requirements listed below. These options are intended to offer maximum flexibility so that students may find the courses of study best fitted for their interests and needs.

**Degrees and Degree Requirements**

**Associate in Science Degree (60 CR.)**

<table>
<thead>
<tr>
<th>A. General Education Requirements</th>
</tr>
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<tbody>
<tr>
<td>1. THEO 100 or 106 ............. 3 Cr.</td>
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<tr>
<td>2. ENGL 100 or 101 ............. 3 Cr.</td>
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<tr>
<td>3. HIST 100 .................. 3 Cr.</td>
</tr>
<tr>
<td>4. Social Analysis .............. 3 Cr.</td>
</tr>
<tr>
<td>5. PE 101-105 .................. 1 Cr.</td>
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</tbody>
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**B. Major Field Requirements**

At least 30 credit hours in Natural Science and Mathematics. Students preparing for admission to one of the allied health fields should develop an appropriate program of study with the Associate Degree Adviser.

**C. Other Requirements**

1. The following work must be completed in residence at Valparaiso University:
   a. 30 of the last 34 credit hours for the degree.
   b. At least 15 credit hours in Natural Science and Mathematics.
   c. THEO 100 or 106.

2. The student must earn a cumulative grade point average of 2.00 on all work in residence and on courses in Natural Science and Mathematics taken in residence.

An Associate in Science degree with concurrent cytotechnology certification may also be obtained. See page 45.

**Bachelor of Arts Degree**

(124 CR.)

**A. General Education Requirements**

1. **Freshman Studies** .... 12 Cr.
   a. FS 100 ............. 3 Cr.
   b. THEO 100 or 106 .... 3 Cr.
   c. ENGL 100 ............. 3 Cr.
   d. HIST 100 .................. 3 Cr.

2. **Academic Area Studies** . 40 Cr.
   a. **Theology** ............. 6 Cr.
      1) One Level II Theology course ............. 3 Cr.
      2) One Level III Theology course taken in the junior or senior year . 3 Cr.
   b. **Literature and Fine Arts** .... 7 Cr.
      1) ENGL 200 ............. 4 Cr.
      2) One course in Fine Arts or Fine Arts-Literature 3 Cr.

3. **Major Field Requirements**

   a. **Theology** ............. 6 Cr.
      1) One Level II Theology course ............. 3 Cr.
      2) One Level III Theology course taken in the junior or senior year . 3 Cr.
   b. **Literature and Fine Arts** .... 7 Cr.
      1) ENGL 200 ............. 4 Cr.
      2) One course in Fine Arts or Fine Arts-Literature 3 Cr.

**b. Other Requirements**

1. **Academic Area Studies** . 40 Cr.
   a. **Theology** ............. 6 Cr.
      1) One Level II Theology course ............. 3 Cr.
      2) One Level III Theology course taken in the junior or senior year . 3 Cr.
   b. **Literature and Fine Arts** .... 7 Cr.
      1) ENGL 200 ............. 4 Cr.
      2) One course in Fine Arts or Fine Arts-Literature 3 Cr.

2. **Major Field Requirements**

   a. **Theology** ............. 6 Cr.
      1) One Level II Theology course ............. 3 Cr.
      2) One Level III Theology course taken in the junior or senior year . 3 Cr.
   b. **Literature and Fine Arts** .... 7 Cr.
      1) ENGL 200 ............. 4 Cr.
      2) One course in Fine Arts or Fine Arts-Literature 3 Cr.

3. **Major Field Requirements**

   a. **Theology** ............. 6 Cr.
      1) One Level II Theology course ............. 3 Cr.
      2) One Level III Theology course taken in the junior or senior year . 3 Cr.
   b. **Literature and Fine Arts** .... 7 Cr.
      1) ENGL 200 ............. 4 Cr.
      2) One course in Fine Arts or Fine Arts-Literature 3 Cr.

**c. Foreign Language** . 8 Cr.

Course number 102 in a foreign language in which the student has no more than one year of high school credit, or course number 103 in any foreign language. A student who has completed a second year language course in high school will not be granted credit toward degree requirements for course 101 in that language at Valparaiso University. International students whose native language is not English and who are studying on a non-immigrant visa are exempt from the foreign language requirement provided that they have fulfilled the General Education Requirements in English (ENGL 100 or 101, and 200).

**d. Diversity: Global Cultures and Perspectives** . 0-3 Cr.

Courses which fulfill this requirement are ECON 336; GEO 102, 311, 313, 314; HIST 230, 231, 240, 241, 250, 341, 342, 350, 393; FLJ 251; PHIL 260; POLS 130, 335; SOC 150, 230; FLS 260; THEO 260, 362, 363, 364, 365, 366; NUR 318. In appropriate cases, a course from this area may be used to fulfill another area requirement.

**e. Diversity: United States Cultural Diversity** . 0-3 Cr.

Courses which fulfill this requirement are ECON 136, 233, ENGL 365, GEO 210 (American Indian on Film, American Ethnic Geography); GLST 150; HIST 225; POLS 110; SOCW 330; SOC 347; THEO 337, 366. In appropriate cases, a course from this area may be used to fulfill another area requirement.

**f. Philosophical and Historical Studies** . 3 Cr.

One course in either philosophy or history. (CLC 311 will also fulfill this requirement.)

**g. Studies in Social Analysis** .... 6 Cr.

Two courses from the following selection: ECON 136, 210, 221, 222, 223, 233; GEO 101, 102, 201, POLS 110, 120, 130, 220, SOC 110, 150. The two courses must be from two different departments.
h. Studies in Natural and Behavioral Sciences/ Mathematics .... 12 Cr.

Three courses, two with a laboratory, are to be selected either:
1) from three different departments (biology, chemistry, geography and meteorology, mathematics and computer science, physics and astronomy, psychology); or
2) from two different departments provided the two courses from the same department have a laboratory and are sequential (the first being prerequisite for the second).

NOTE: MATH 110 and 114 will not fulfill this requirement.

i. PE 101-105 ....... 1 Cr.

Taken in the junior or senior year. See page 50 for complete information.

B. Major Field Requirements

Students may fulfill the major field requirements of the Bachelor of Arts degree by completing either a Department Major or an Individualized Major and by meeting one of the completion requirements listed below; or by completing an Interdisciplinary Program (see page 41).

Departmental Major. In order to fulfill requirements under the Departmental Major, students must complete a minimum academic major. Departments in the College of Arts and Sciences offer the following major fields for the Bachelor of Arts degree: Art, Biology, Chemistry, Classics, Communication, Computer Science, Economics, Economics and Computer Analysis, English, French, Geography, German, History, Mathematics, Music, Philosophy, Physics, Political Science, Psychology, Sociology, Spanish, Theatre and Television Arts, and Theology.

Individualized Major. An approved individualized major of thirty credit hours may be presented instead of the departmental majors listed above. This major is intended for students with clearly defined academic or career objectives who feel that their specific needs are not met by the departmental major option or by the interdisciplinary program option described below. A student in the College of Arts and Sciences may propose a plan for an individualized major, using the form available in the Dean's office. The major must satisfy the following conditions.

1. The proposed major must include at least 30 credit hours but not more than 48 credit hours chosen from two or more departments.
2. None of the courses chosen may be courses used to meet the General Education Requirements.
3. The proposed major must be supported and supervised by a faculty adviser.
4. A comprehensive statement by the student justifying the major must accompany the Individualized Major form. This form must list the specific courses to be taken, and will be signed by the student and the faculty supervisor before it is presented to the Dean's office for approval. Any revisions must also be approved by the Dean of the College.
5. The proposed major must be submitted to the Dean of the College and Sciences for approval, preferably by the beginning of the junior year, but no later than the deadline for filing for degree candidacy.

The selection of courses for the individualized major should reflect serious deliberation on the part of the student and adviser. Normally, the individualized major will not include lower division courses or classes of an introductory nature.

The individualized major may be freely substituted for a departmental major in any of the various combinations available to students in meeting major requirements for the Bachelor of Arts degree. Courses taken for this major may not be counted for credit toward a minor or a second major.

Completion of Major Field Requirement

In addition to completing either a departmental or an individualized major, students must complete one of the following:

1. An academic minor. The faculty recommends that minors be selected that are correlated to the major. No course may be used to fulfill two majors or both a major and a minor requirement except with the permission of the Dean of the College.
2. An approved individualized minor of 15 credit hours may be presented in lieu of the departmental minor. At least 9 credit hours must be taken beyond the introductory level. None of the courses chosen may be courses used to meet the General Education Requirements. Forms for individualized minors are available in the Dean's Office. A student may not graduate with both a minimum individualized major and an individualized minor as the method of fulfilling major area graduation requirements.
3. A second academic major. In addition to the first major areas listed above, Physical Education may also be selected. An approved individualized major may also be presented in fulfillment of requirements of a second major.
4. A complementary major. A major which enhances and expands a first major. This major may not be a first major.
5. A first major with at least forty credit hours. However, no more than forty-eight credit hours from one department may be applied toward the 124 required for graduation. This limitation does not apply to students pursuing a double major in the Department of Foreign Languages and Literatures, students pursuing double majors in Mathematics and Computer Science in the Department of Mathematics and Computer Science, the Bachelor of Music or Bachelor of Music Education degrees, or students pursuing a Bachelor of Fine Arts degree.
6. An interdisciplinary minor, see listing below.

Interdisciplinary Programs

The College of Arts and Sciences offers nine Interdisciplinary Programs of study which students may pursue instead of the major options outlined above. These programs are coordinated by special administrative committees composed of faculty members drawn together by their interest in a particular subject not defined by boundaries of the traditional academic disciplines. Interdisciplinary Programs are currently offered in American Studies, Broadcast Meteorology, East Asian Studies, Environmental Science, International Economics and Cultural Affairs, International Service, Music Enterprises, and complementary majors in Modern European Studies and Music-Theatre.

A departmental second major, a complementary major, or departmental minor may be added to the Interdisciplinary Programs with approval of the Dean's office.

In addition, minors in Interdisciplinary Programs in American Studies, Applied Statistics, Business Administration, East Asian Studies, Environmental Studies, Ethnic Studies, Film Studies, Gender Studies, Human Aging, Liberal Arts Business, and Political Communication may be added to departmental majors.

BACHELOR OF MUSIC DEGREE (128-136 CR.)

To be eligible for the Bachelor of Music degree, students must complete the required curriculum for the program area. In addition, they must pass all performance tests set for them by the Department of Music. They must earn 136 credit hours for the Church Music program or 128 credit hours for the Composition or Performance program. They must maintain a grade point average of 2.00.

Two options are offered the student in the church music program: organ and voice. Each student is expected, however, to acquire sufficient skill in organ performance and choral directing to assume a position as a qualified parish musician.

A. General Education Requirements

For details see the Bachelor of Arts degree.

1. Freshman Studies .......... 12 Cr.
2. Academic Area Studies
   a. THEO II and III .......... 6 Cr.
   b. ENGL 200 ................. 4 Cr.
   c. Foreign Language ......... 8 Cr.
   d. Global Cultures and Perspectives .. 0-3 Cr.
   e. U.S. Cultural Diversity .. 0-3 Cr.
   f. Philosophical and Historical Studies .... 3 Cr.
   g. Studies in Social Analysis .... 6 Cr.
   h. Studies in Natural and Behavioral Sciences/ Mathematics .. 4 Cr.
   i. PE 101-101 ............... 1 Cr.
   j. INTS 400 .................. 3 Cr.

3. INTS 400 ................. 3 Cr.
B. Music Requirements
The requirements for the major fields are given on page 117.

BACHELOR OF MUSIC EDUCATION DEGREE (135-142 CR.)

To be eligible for this degree, students must complete the curriculum described below. In addition, they must pass all performance tests set for them by the Department of Music. Three specializations are offered: vocal, instrumental, and combination. The combination specialization is designed for students who wish to prepare themselves for teaching in both the vocal and instrumental fields. Any one of the specializations also meets state requirements for the teaching of general music. Students must earn a total of 138 credit hours in the vocal specialization, 140 credit hours in the instrumental specialization, and 142 credit hours in the combination specialization. They must have a grade point average of 2.50. In addition to meeting the music requirements for the Bachelor of Music Education degree, each student must be formally admitted into the Teacher Education Program and the Professional Semester. See requirements listed in the Department of Education under Secondary Education, pages 71-72.

A. General Education Requirements
For details see the Bachelor of Arts degree.

1. Freshman Studies 12 Cr.
2. Academic Area Studies
   a. Theology II and III 6 Cr.
   b. ENGL 200 4 Cr.
   c. Global Cultures and Perspectives 0-3 Cr.
   d. Philosophical and Historical Studies 3 Cr.
   e. Studies in Natural and Behavioral Sciences/Mathematics 8 Cr.
   f. PE 101-105 1 Cr.
3. INTS 400 3 Cr.

B. Professional Education Requirements

1. ED 203 2 Cr.
2. ED 204 3 Cr.
3. ED 305 or 306 or 307 1 Cr.
4. ED 457 3 Cr.
5. ED 458 10 Cr.
6. ED 460 3 Cr.
7. ED 474 1 Cr.
8. ED 475 3 Cr.
9. ED 485 2 Cr.
10. ED 489 3 Cr.
11. SPED 340 3 Cr.

C. Music Requirements
The requirements for the major field are given on page 117.

BACHELOR OF SCIENCE DEGREE (124 CR.)

A. General Education Requirements
For details see Bachelor of Arts degree.

1. Freshman Studies 12 Cr.
2. Academic Area Studies
   a. Theology II and III 6 Cr.
   b. ENGL 200 4 Cr.
   c. Global Cultures and Perspectives 0-3 Cr.
   d. U.S. Cultural Diversity 0-3 Cr.
   e. Studies in Social Analysis 6 Cr.
   f. Studies in Natural and Behavioral Sciences/Mathematics 12 Cr.
   g. PE 101-105 1 Cr.
3. Academic Area Studies Option
   Select two of the following:
   a. Fine Arts or Fine Arts-Literature 3 Cr.
   b. Foreign Language, one course above 101 3-4 Cr.
   c. One course in Philosophy or History 3 Cr.
4. INTS 400 3 Cr.

B. Major Field Requirements
A student must complete one science major of at least 32 credit hours (biology, chemistry, computer science, geology, mathematics, meteorology, physics, psychology) and:

1. A science minor, or
2. A non-science major, or
3. The Liberal Arts Business Minor (See page 191 for details), or
4. An Education Minor, or
5. An Applied Statistics Minor;
   OR two minimum science majors (biology, chemistry, computer science, geology, mathematics, meteorology, physics, psychology);
   OR complete at least 40 credit hours in the first major.

No more than 48 credit hours from a major department may be applied toward the 124 credit hours required for graduation.

The major is offered as a special program in the Department of Geography.

C. Other Requirements
The student must earn at least 62 credit hours in non-art courses, which may be comprised of the General Education Requirements and electives.

BACHELOR OF SCIENCE IN PHYSICAL EDUCATION DEGREE (124 CR.)

A. General Education Requirements
For details see Bachelor of Arts degree.

1. Freshman Studies 12 Cr.
2. Academic Area Studies
   a. Theology 6 Cr.
   b. ENGL 200 4 Cr.
   c. Global Cultures and Perspectives 0-3 Cr.
   d. U.S. Cultural Diversity 0-3 Cr.
   e. Studies in Social Analysis 6 Cr.
   f. Studies in Natural and Behavioral Sciences/Mathematics 12 Cr.
   g. PE 101-105 1 Cr.
3. Academic Area Studies Option
   Select two of the following:
   a. Fine Arts or Fine Arts-Literature 3 Cr.
   b. Foreign Language, one course above 101 3-4 Cr.
   c. One course in Philosophy or History 3 Cr.
4. INTS 400 3 Cr.
B. Major Field Requirements
The first major, if the student has a double major, must be physical education. See page 124 for specific major requirements.

BACHELOR OF SOCIAL WORK
DEGREE (124 CR.)

A. General Education Requirements
General education requirements for the Bachelor of Social Work degree are the same as those for the Bachelor of Arts degree, pages 39-40.

B. Major Field Requirements
The first major, if the student has a double major, must be social work. See page 138 for specific major requirements.

Special Academic Regulations for the College of Arts and Sciences

REGULATIONS CONCERNING GENERAL EDUCATION REQUIREMENTS

1. A course may not be used to meet more than one General Education Requirement, with the exception of the required courses in diversity (Global Cultures and Perspectives or U.S. Cultural Diversity). Appropriately designated diversity courses may be applied simultaneously toward fulfillment of certain area requirements.

2. Only courses of at least three credits may be used in meeting General Education Requirements, excluding the requirement in Physical Education.

3. Courses taken to fulfill major requirements may be presented in fulfillment of General Education Requirements where applicable.

RESTRICTIONS ON THE USE OF CREDIT HOURS FOR DEGREES IN THE COLLEGE OF ARTS AND SCIENCES

1. A student may apply no more than four credit hours in Physical Education 101-149 toward a degree in the College of Arts and Sciences.

2. At most, four credit hours from the Computer Science courses numbered 128, 225, 226, and 290 may be applied toward a degree.

3. Non-music majors are limited to 16 credit hours of applied music of which no more than 4 credit hours may be in ensemble music. For further clarification see page 118.

4. No more than 48 credit hours in any one department may be applied toward the total of 124 credit hours required for graduation. This limitation does not apply to students pursuing double majors in Mathematics and in Computer Science in the Department of Mathematics and Computer Science, the Bachelor of Music or Bachelor of Music Education degrees or to students pursuing the degree Bachelor of Science in Fine Arts who present at least 62 non-art credit hours.

5. A student may apply no more than 15 credit hours collectively from the professional colleges of the University toward a degree in the College of Arts and Sciences, subject to the following exceptions:
   a. Students completing the Liberal Arts Business Minor may apply 18 credit hours in business administration courses only if Accounting 206 is selected to complete the requirement.
   b. Students completing the Music Enterprises Program or the Business Administration Minor may apply 21 credit hours in business administration.

Note: A student who transfers from one of the professional colleges into the College of Arts and Sciences may apply credits within the restrictions listed above. For further clarification, consult the Dean of the College.

Professional and Pre-Professional Areas

The College of Arts and Sciences offers degrees especially designed for: teaching in elementary schools, teaching of music, performance of music, creation of art works, work in physical education and social work. The appropriate degrees are described earlier, pages 39-44. In addition, students can prepare for teaching in secondary schools under a variety of majors for Bachelor of Arts and Bachelor of Science degrees. The Deaconness Program, the pre-legal program and the pre-medical arts programs are professional preparatory programs a student may complete while pursuing a liberal arts major.

Students interested in any of these programs should declare the program before entering the sophomore year.

Those pursuing an Associate in Science degree may elect the cytotechnology certification option. This program requires the student to complete a one-year program in an accredited school of cytotechnology and a one-year prescribed course of study at Valparaiso University. The credits from the cytotechnology program (usually 30) will transfer to Valparaiso University to meet about half of the requirements for the A.S. degree. See pages 38-39 for the degree requirements for the Associate in Science degree. Students should contact a premedical arts advisor for specific science courses that must be completed.

TEACHER EDUCATION PROGRAMS

The Teacher Education Program is under the direction of the Department of Education. Eligibility for admission to the program is determined by the department.

Note: Major and minor areas for teacher certification as in the list below are not the same as academic majors or minors. Consult the Department of Education for those courses required for major and minor areas for teacher certification.

The University currently prepares applicants for certification in the following types of teaching:

Elementary
General Elementary (Grades 1-6)
Endorsements in:
- Reading
- Special Education (learning disabilities/neurologically impaired)
- Coaching
- Health Education
- Music
- Physical Education
- Recreation
- Visual Arts
- Journalism

Junior High/Middle School endorsement
(Grades 5-9-10)

- Social Studies
- Language Arts
- Mathematics
- Science
- Foreign Language
- Visual Arts
- Foreign Language

Senior-Junior High/Middle School
(Grades 5-12)

- Coaching endorsement
- English major or minor
- Foreign Language major or minor
- French
- German

PREPARATION FOR THE MEDICAL ARTS

Students can prepare for entrance into medical, dental, veterinary, medical technology, physical therapy, or paramedical schools by entering one of the pre-medical arts programs of the College. Students in these programs must have their schedules approved at the beginning of each semester by a major adviser and an assigned premedical arts academic adviser. Advising in the pre-medical arts is handled by premedical advisers, who are members of the Committee on Pre-Medical Arts. All recommendations to the professional schools are sent out by this Committee: Professors Cook (Chemistry), F. Meyer (Biology), Associate Professor Hicks (Biology), and Assistant Professor Scupham (Biology).
or Bachelor of Science degree with the exception that one course in theology and the Integrative studies requirement are waived.
3. They must complete an academic major. For the Bachelor of Science degree this major must be in one of the science fields.
4. They must offer at least 93 semester credit hours of college work.
5. They must apply for graduation by the deadline date as noted at the front of this catalog and present to the Office of the Registrar an official transcript of an additional year's satisfactory work at an approved professional school.

**PREPARATION FOR THE STUDY OF LAW**
According to the consensus of legal educators, a specified major is not a prerequisite to the study of law. Significant qualities of undergraduate preparation derive from the intellectual discipline required by exacting teachers rather than the subject matter of what is taught. Pre-law students should select an academic major and consult with their academic adviser and a pre-law adviser to select courses in the student's areas of interest which will place demands on analytic skills and both verbal and written expression.

Students in this program may express common interests through the Pre-Law Society.

**PREPARATION FOR SEMINARY**
Students may prepare themselves for seminary entrance by enrolling in the pre-seminary program of Valparaiso University. This program meets all the standards of the Association of Theological Schools for undergraduate education, as well as the entrance requirements of all Lutheran and other Protestant seminaries. Upon graduation from this program, students are usually accepted into the seminaries not only of the Lutheran Church Missouri Synod and the Evangelical Lutheran Church in America, but also of other Protestant bodies, and in graduate divinity schools throughout the United States.

A student who is interested in preparing for seminary entrance is helped by an adviser to select appropriate undergraduate courses. These include studies in the arts and humanities, in theology, in the biblical languages and in areas of the student's own special interest.

Further information on this program is available from the Chair of the Department of Theology.

**ARTS AND SCIENCES**

**PRE-ENGINEERING PROGRAM**
Applicants for admission to the College of Engineering may require additional work, usually in mathematics or sciences, before admission is granted. Such students may be admitted to the College of Arts and Sciences for this preparation. Students should consult the Dean of the College of Engineering for details.

**ARTS AND SCIENCES**

**PRE-NURSING PROGRAM**
In some cases students applying for admission to the College of Nursing may require additional preparatory work, usually in the biological and social sciences, before admission is granted. A limited number of such students, as well as late applicants, are admitted to the College of Arts and Sciences. These students are helped by the College of Nursing to develop a course of study which will prepare them for admission to the College of Nursing. Students who successfully complete this course of study, including all the liberal arts pre-nursing requirements given on page 184, with a standing of 2.00 or better may then apply to the Dean of the College of Nursing for admission to that College.

**PROGRAM OF STUDIES IN DEACONESS MINISTRY**
The University and the Lutheran Deaconess Association cooperate in the education of women for service in Deaconess Ministry. A deaconess student may choose one of the following education plans:

**PLAN 1** Students complete the requirements for the Bachelor of Arts degree with a major in Theology, minor in a related field. Attendance at Valparaiso University during the junior and senior years is required. Practical courses are Fieldwork (two semesters) and Clinical Deaconess Education. A year of internship is required between the junior and senior years. This is a year of supervised learning through work in a church-related setting, enabling the student to develop knowledge and skills for Deaconess Ministry.

**PLAN 2** Students complete the requirements for a major at Valparaiso University in nursing, social work, education, communicative disorders or music. In addition they take at least a minor in Theology. Practical requirements are met in connection with the practicum for the major. A year of internship is an option. Otherwise, one year of association with graduate students is required after graduation before certification for consecration.

**PLAN 3** A person who already has a bachelor's degree from an accredited college or university attends Valparaiso University for two semesters plus a mini session. The student takes a full complement of theology courses, including Fieldwork (one semester) and Clinical Deaconess Education. The student does one year of internship following completion of the academic work at Valparaiso University.

Pi Delta Chi is a professional society of deaconess students. This organization helps students in the understanding of the diaconate and the varieties of ministries in which they can serve God and people.

Deaconess students participate in various formation, worship and social activities. The residence requirement for PLAN 1 students is two years. Students under PLAN 2 or PLAN 3 should discuss the residency requirement with the staff of the Lutheran Deaconess Association.

The education program is under the counsel and guidance of the staff of the Lutheran Deaconess Association. Inquiries should be directed to the Director of Student Services, Center for Diaconal Ministry, 1304 LaPorte Avenue, Valparaiso, Indiana 46383-9978.

**COMBINED LIBERAL ARTS-ENGINEERING PROGRAM**
Students may earn in five years (ten semesters) both the Bachelor of Arts degree and one of the Bachelor of Science in Engineering degrees. They may earn the two degrees by completing one of the approved curricula and the General Education Requirements of the Bachelor of Arts degree as well as the major requirement of the College of Arts and Sciences. This requires them to earn 168 credit hours and to have a standing of at least 2.00 in all of their work. Students who elect such a program must have their schedules approved by both the Dean of the College of Arts and Sciences and the Dean of the College of Engineering at the beginning of each semester. Sample or representative curricula for such programs may be obtained upon application to the Dean of the College of Engineering.
Departmental Honors Work

Honors work is designated for students of exceptional ability who may benefit by earning a limited number of the credits required for graduation through supervised independent study rather than through regular course work. Students who make application for Honors Work should understand that their work will be evaluated according to the highest standards of scholarly achievement.

Honors Work may be taken by any student in the College of Arts and Sciences whose major or program is approved by a department or an administrative committee.

A student who has completed at least 80 credit hours, but has not yet entered upon the work of the last two semesters, and who has a cumulative grade point average of at least 3.00 and a grade point average in the major of at least 3.50 may apply through the major department or program for admission to Honors Work. To apply, the student must submit a plan for a major independent project which will be undertaken under the supervision of a member of the major department or program. The application form, which requires the student to articulate the independent project briefly, clearly, and with a timetable and modest bibliography, is available in the dean’s office. This plan must be presented to the chair of the student’s department or program for approval and forwarded to the dean’s office at least twenty-one days prior to the examination period of the student’s second semester, junior year. The dean will then forward the application to the Scholarship and Advising Committee for final approval. If the proposed independent study project is approved, the student shall be enrolled by the Dean’s Office in the first semester of the senior year in course numbered 497 “Honors Work in the major department or program”.

A student who has been admitted to Honors Work must present four copies of a completed draft of the project to the chair of the major department (or program) at least ten class days (December 2, 1996) before the beginning of the final examination period of the student’s first semester of the senior year. With prior approval, the student may substitute for the completed draft a status report demonstrating substantial progress (in certain areas, such as in the experimental sciences). In the case of a status report, the student should describe the work accomplished during the semester and the plans for continued work during the following semester. The project is then judged at mid-year by a project committee consisting of the chair of the major department or program, the project adviser, one additional department reader, and one outside reader who is a member of the Scholarship and Advising Committee. If, based on the status report or draft, the project committee affirms the likelihood that the student will be able to conclude an exceptional piece of scholarship by the end of the following semester, that student will be admitted to Candidacy for Honors. If the project has not progressed as had been expected, the student will be denied admission to Candidacy for Honors. The student should consult with the project adviser for departmental/program evaluation policy.

If admitted to Candidacy for Honors, the student shall be registered by the Dean’s Office during the second semester of the senior year in course numbered 498 “Honors Candidacy in (major department or program)”. A student must complete the independent study project begun in the previous semester, incorporating additions or revisions suggested by the project committee to its satisfaction. Four copies of the completed project report must be delivered to the chair of the major department or program at least fifteen class days (April 16, 1997) before the beginning of the final examination period of the student’s final semester.

The original project committee shall then schedule an oral examination for the Honors candidate to assess the student’s knowledge of matter covered in the independent study project and any other closely related matters deemed appropriate by the project committee. The Honors Candidate shall be notified beforehand of the related matters to be included in the examination. If, in the opinion of the project committee, the candidate is worthy of Honors, it shall recommend to the dean that the student be awarded three credit hours with a grade of A or A- for course numbered 498 and be graduated “With Honors in (the major field).” If the candidate is not deemed worthy of Honors, the office of the dean, upon consultation with the project committee, may recommend that the student be granted three credit hours for Independent Study in the major department or program, with a grade determined by the project committee. Two copies of the final project report will be given to the Dean’s Office for archival purposes.

During the semester or semesters of engagement in Honors Work, a student is not allowed to carry more than 12 credit hours in addition to Honors Work. A student enrolled in Honors Candidacy is excused from all regular final examinations of the last semester of the senior year.

A student whose major requires completion of a senior project or who is preparing a major independent project for Christ College, may register for Honors Work in lieu of the departmental senior project course, after securing permission from the department chair. The same procedures as outlined above must be followed.

Cooperative Education

Cooperative Education in the College of Arts and Sciences is a program in which students combine professional, paid work experience with academic programs. Students may be employed in full-time (called alternating) or part-time (called parallel) placements. Normally, a semester of full-time employment will earn a maximum of 3 credit hours; a full-time summer employment, a maximum of 2 credit hours; and a part-time (parallel) placement requiring a minimum of fifteen hours per week, 1 credit hour. Parallel placements of fewer than fifteen hours per week may be given 0.5 credit hours. Students will normally complete a minimum of two alternating or four parallel work assignments. The program is available through various departments as well as through the general offerings of the college. The College’s general program is intended both for undeclared majors who are able to use cooperative education on an exploratory basis and for declared majors who may wish to participate outside their major department on an elective basis.

The following policies govern Cooperative Education within the College:

1. The student works under the advisement of a faculty member who monitors the work experience, evaluates the required written reports by students, and assigns the course grade.
2. A student is eligible upon completion of two semesters of enrollment in residence with a minimum cumulative grade point average of 2.50. Co-op is open to students upon completion of the freshman year.
3. Placements require prior approval of the Coordinator of Cooperative Education; retroactive credit will not be granted.
4. Course credits count as electives toward graduation or, in certain academic departments where specified, count toward the department’s major or minor.
5. No more than a combined total of 12 credit hours earned through cooperative education, internship, field experience, or other work experiences may be applied toward the meeting of minimum graduation requirements. Exceptions may occur in certain departments due to professional certification requirements.

Additional restrictions may apply in departments where the cooperative education credits count toward major or minor requirements.

General Courses Offered by the College of Arts and Sciences

Freshman Seminar 100. Cr. 3. A limited enrollment course offered on a variety of topics and taught by faculty from across the University. Freshman Seminar introduces students to methods of study and inquiry central to liberal education. By teaching skills of critical reading, thinking and writing, and integrating these with skills of oral presentation and productive discussion, the course encourages students in their learning and prepares them for lively participation in their academic careers. Students who transfer into the University with 24 or more semester hours of credit are excused from the seminar. Students enrolled in the Christ College Freshman Program are exempt.

Note: Courses 330 and 335 are available in Overseas study Centers only.


GS 335. Reutlingen Tutorial: German Life and Culture. Cr. 3. Studies in aspects of German life and culture. Bi-weekly essays and meetings with tutor. Reutlingen Center only.
# American Studies

### Administrative Committee:
- Professor Feaster (English, Chair);
- Professors Albers (Theology), Janke (Geography), Piehl (Christ College), Spoonberg (English), Trost (Political Science); Associate Professor Kohlhoff (History).

Students completing the Program in American Studies will have fulfilled major field requirements for the Bachelor of Arts degree under the Interdisciplinary Program Option.

### Objectives.
The Program in American Studies offers the undergraduate student an opportunity to study the whole civilization of the United States—its fundamental ideas, institutions and symbolic expressions as these have developed over time. This common subject matter is examined through a variety of methods and materials that reach across traditional disciplines. The student must, therefore, become familiar with the approaches of the social sciences, the fine arts, and the humanities as these bear on the subject of American civilization. By drawing together these different perspectives, American Studies enables students to attain a broad vision of the civilization, while deepening their understanding of what is both unique and universal about the United States.

### Resources.
Valparaiso University has special resources for the student in American Studies. Among these are the Library of American Civilization, containing more than 15,000 volumes of American materials on microfiche; the Sloan Art Gallery, and the Washington Semester Program (page 12), which allows students to spend a semester in Washington, D.C., and intern at such institutions as the National Archives and the Smithsonian.

### Program Requirements.
A minimum of 48 credit hours in courses approved by the Administrative Committee. Courses must include the 24 credit hours designated in the Program Core and an additional 24 credit hours selected from the list of approved elective courses. The student and the Chair of the Committee, who is adviser for all students in the Program, may select courses that fulfill individual academic or career objectives. Courses not included in the list of approved electives may be substituted in some instances if they are approved by the Chair of the Committee. Students are encouraged to undertake independent study projects.

Honors Work may be undertaken in American Studies with appropriate approval. Students should register for AMST 497: Honors Work in American Studies, and 498: Honors Candidacy in American Studies (see page 48).

### Area Minor in American Studies.
A student fulfilling major field requirements under a Major Option may present an area minor in American Studies for the required minor. Requirements for the minor are a minimum of 24 credit hours approved by the Committee on American Studies. Courses must include at least 12 credit hours selected from the Program Core. The remaining credit hours are selected from the list of approved elective courses.

### Program Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 320 or 321</td>
<td>American Painting or American Architecture</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 401 and 402</td>
<td>American Literature</td>
<td>6</td>
</tr>
<tr>
<td>HIST 220 and 221</td>
<td>U.S. History</td>
<td>6</td>
</tr>
<tr>
<td>POLS 120</td>
<td>Government of the U.S.</td>
<td>3</td>
</tr>
<tr>
<td>THEO 324</td>
<td>The American Religious Experience</td>
<td>3</td>
</tr>
<tr>
<td>AMST 498</td>
<td>Independent Study</td>
<td>3</td>
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### Elective Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 311</td>
<td>Modern Art since 1945</td>
<td>3</td>
</tr>
<tr>
<td>CC 300</td>
<td>Seminar-Modern American Social Thought</td>
<td>3</td>
</tr>
<tr>
<td>CC 301</td>
<td>Seminar-Dorothy Day and James Agee</td>
<td>3</td>
</tr>
<tr>
<td>ECON 233</td>
<td>The Economics of Race and Gender</td>
<td>3</td>
</tr>
<tr>
<td>ECON 360</td>
<td>Economic History of the U.S.</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 365</td>
<td>Studies in American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 390</td>
<td>Topics in Literature</td>
<td>3</td>
</tr>
<tr>
<td>GEO 174</td>
<td>North American Indian</td>
<td>3</td>
</tr>
<tr>
<td>GEO 310</td>
<td>Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEO 474</td>
<td>Historical Geography of the U.S.</td>
<td>3</td>
</tr>
<tr>
<td>HIST 321</td>
<td>The American Revolution</td>
<td>3</td>
</tr>
<tr>
<td>HIST 322</td>
<td>Slavery, Abolitionism and Sectarianism</td>
<td>3</td>
</tr>
</tbody>
</table>

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**College of Arts and Sciences**

**American Studies**

**CPED 381. Cooperative Education I.**
- Cr. 0.5-3. This course is a pre-arranged, approved professional work experience with a cooperating employer. A written report is required of each student. The prerequisites are one year in residence, a minimum cumulative grade point average of 2.50, and the approval of the Coordinator of Cooperative Education.

**CPED 382-383. Cooperative Education II-III.**
- Cr. 0.5-3. The prerequisites for additional cooperative education experiences are the same as for Cooperative Education 381, plus positive work performance evaluations by the previous cooperative employer(s). This course may be repeated beyond 383 for additional credit, subject to the guidelines of the College, as stated on page 45.

**GS 395. Independent Study Project.**
- Cr. 1.3. An independent project is conducted on a topic selected by a group or individual. Grading is limited to the use of S or U. Prerequisites: Approval of a faculty sponsor and the Dean of the College of Arts and Sciences.

This course is administered by the Dean of the College for students who desire to work on a specialized academic project. A proposal for an independent study project must be submitted at least three weeks before the beginning of the registration period for the semester in which the project is to occur. Further details and an application form may be obtained at the Office of the Dean of the College of Arts and Sciences.

### Integrative Studies Requirement.
The Integrative Studies requirement is a junior-senior level multidisciplinary course intended to bring together the broader knowledge students have acquired in general education and the more specialized knowledge acquired in their major disciplines in order to stimulate a synthesis of skills and knowledge and to inspire a commitment to the ethical responsibilities of informed citizenship. Integrative studies courses are developed and offered by clusters of related disciplines in the College of Arts and Sciences and, except with the approval of the Office of the Dean, are open only to students majoring in one of the disciplines in the cluster which sponsors the course.

The Integrative Studies requirement must be taken on the Valparaiso University campus or as part of an approved off-campus program.

**Urban Semester.** The following courses are offered in a residential program in Chicago in cooperation with the Associated Colleges of the Midwest:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC 320</td>
<td>American Painting or American Architecture</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 401</td>
<td>American Literature</td>
<td>6</td>
</tr>
<tr>
<td>HIST 220</td>
<td>U.S. History</td>
<td>6</td>
</tr>
<tr>
<td>POLS 120</td>
<td>Government of the U.S.</td>
<td>3</td>
</tr>
<tr>
<td>THEO 324</td>
<td>The American Religious Experience</td>
<td>3</td>
</tr>
<tr>
<td>AMST 498</td>
<td>Independent Study</td>
<td>3</td>
</tr>
</tbody>
</table>

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**American Studies**
HIST 323 Civil War and Reconstruction. 3 Cr.
HIST 324 Depression and War: United States, 1929-1945. 3 Cr.
HIST 325 The Age of Anxiety: United States Since 1945. 3 Cr.
HIST 327 History of American Political Parties. 3 Cr.
HIST 330 Topics in History. 3 Cr.
HIST 492 Reading and Discussion Seminar. 2-3 Cr.
HIST 493 Research Seminar. 3 Cr.
Note: The Department of History frequently offers seminars under 390, 492 (see above) and 493 that are applicable to the American Studies Program. Recent offerings include American Countercultures, Slavery in the Americas, History of the American South, American Environmentalism, Pearl Harbor, American Immigration History.

PHIL 290 Philosophical Topics: American Philosophy. 3 Cr.
PHIL 370 Analytic and Contemporary Anglo-American Philosophy. 3 Cr.
POLS 220 State and Local Politics in the U.S. 3 Cr.
POLS 320 Problems in State and Local Politics. 3 Cr.
POLS 325 Problems in American Politics. 3 Cr.
POLS 326 The Presidency. 3 Cr.
POLS 327 Congress. 3 Cr.
POLS 340 Constitutional Law I. 3 Cr.
POLS 341 Constitutional Law II. 3 Cr.
POLS 355 Problems in Political Philosophy: American Democratic Thought. 3 Cr.

SOCW 330 American Minority Lifestyles and Human Rights. 3 Cr.
SOC 325 Urban Sociology. 3 Cr.
SOC 347 Race and Ethnic Relations. 3 Cr.
SOC 390 Issues in Sociology: American Study topics. 3 Cr.
TTVA 337 American Theatre. 3 Cr.

THEO 328 History of Lutherans in America. 3 Cr.
THEO 368 American Indian Religions. 3 Cr.

AMST 495. Independent Study. Cr. 3. An independently supervised course of study taken under the direction of a member of the Administrative Committee on American Studies usually during the student's senior year. Students are expected to produce a major paper that reflects intensive reading and research in an area pertaining to American culture and to employ the interdisciplinary methods characteristics of American Studies as a field. Before registering for this course students must submit a prospectus to the Administrative Committee for approval. Required for majors.


Art

Associate Professors Corazzo, Frey, Gambone, Morgan; Assistant Professors Sirko (Acting Chair), Tomasek.

The Art Department offers instruction in basic design, graphic design, drawing, painting, photography, sculpture, ceramics, art of fiber, art education and art history. Interdisciplinary majors are possible which combine these areas with such fields as journalism, interior design, drama, marketing and others. Upperclass majors typically work independently with individual members of the faculty. Gallery and cultural resources on campus and in nearby Chicago are an integral part of the curriculum. The University has the endowed Sloan Collection of American Paintings and an active exhibition program.

A major in art may lead to careers in the fine arts and related fine arts services such as museum technology and gallery sales; in areas of visual communication such as graphic design, photography and illustration; and in the field of art education. A graduating art major is also prepared for graduate study in art history and the fine arts.

Major. A minimum of 30 credit hours in art which must include ART 101, 102, 121, 132, 162, 221, 231, and 261. The Bachelor of Science in Fine Arts degree requires 54 credit hours of art; see page 43.

After completion of the core courses for each degree, a concentration must be chosen in painting, sculpture, ceramics, photography, graphic design or art history. Recommendation for admission to the B.S. in F.A. program requires a portfolio presentation to the faculty of the Art Department by the beginning of the junior year. Descriptions of specialized programs as well as suggested curricula are available from the Department Chairman. Field trips, art exhibitions, visiting artists and similar events are integral parts of the program of the Art Department.

Minor. A minimum of 15 credit hours in art constitutes a minor. The student may concentrate in studio art or art history. For studio art: ART 101 or 102, 121, 132, and 162 or 231 must be included. For art history: ART 101 and 102 must be included in addition to three other art history courses in the department.

Degrees. Completion of the degree requirements of the College of Arts and Sciences with a major in art leads to the Bachelor of Arts degree intended to provide a general art background; or the Bachelor of Science in Fine Arts degree primarily intended for students desiring to continue their training at the professional or graduate school level. See page 43 for the requirements for the B.S. in F.A. degree. Specialization in art education is possible in either the B.A. or the B.S. in F.A. program; consult the Education Department concerning state and University requirements.

Approval of Schedules. Students who take a major or a minor in art must have their schedules approved by the Chair of the Department at the beginning of each semester. Students who expect to teach art should consult, as early as possible, the appropriate adviser in the Education Department concerning state and University Requirements.

ART HISTORY

101. Art History I. Cr. 3. A survey of art history from prehistoric times through the Gothic period. Field trip. This course may be used to fulfill the Fine Arts/Fine Arts-Literature component of the General Education Requirements.

102. Art History II. Cr. 3. A survey of art history from the Renaissance to the 19th century. Field trip. This course may be used to fulfill the Fine Arts/Fine Arts-Literature component of the General Education Requirements.

311/511. Topics in the Theory and History of Art. Cr. 1-4. An investigation of major periods or developments in the visual arts. Included may be historical topics such as medieval or non-Western art history, the history of art theory or such topics as aesthetics or color theory. Field trip. May be repeated for credit provided topics are different. This course may be used to fulfill the Fine Arts/Fine Arts-Literature component of the General Education Requirements.

317/517. Seventeenth and Eighteenth Century European Art. Cr. 3. A seminar course tracing major themes in Italian, French, Spanish, Netherlandish, and British art in the 17th and 18th centuries. This course may be used to fulfill the Fine Arts/Fine Arts-Literature component of the General Education Requirements. Prerequisite: junior standing or approval of the Chair of the Department.
Cr. 3. A seminar course tracing major themes in 19th century European art. This course may be used to fulfill the Fine Arts/Fine Arts-Literature component of the General Education Requirements. Prerequisite: junior standing or approval of the Chair of the Department.

319/519. Early Twentieth Century European Art.  
Cr. 3. Seminar course tracing major movements in European art from the turn of the century until World War I. This course may be used to fulfill the Fine Arts/Fine Arts-Literature component of the General Education Requirements. Prerequisite: junior standing or approval of the Chair of the Department.

320/520. American Painting.  
Cr. 3. A survey of American painting history from colonial times through the present. Field trip. This course may be used to fulfill the Fine Arts/Fine Arts-Literature component of the General Education Requirements.

Cr. 3. A survey of American architectural history from colonial times through the present. Field trip. This course may be used to fulfill the Fine Arts/Fine Arts-Literature component of the General Education Requirements.

STUDIO  
121. Drawing.  
0+6, Cr. 3. A basic course in the fundamentals of drawing and using various media. Field trip.

0+6, Cr. 3. A study of more advanced techniques and problems involving the drawing media, to include the human figure. Field trip. Prerequisite: ART 121.

132. Introduction to Design.  
0+6, Cr. 3. A course introducing the basic elements and principles of two-dimensional and three-dimensional design. Field trip.

151. Ceramics.  
0+6, Cr. 3. Basic ceramic processes including wheel throwing, hand building, tapestry and coiling. Field trip.

152. Ceramics: Advanced Studies.  
0+6, Cr. 3. Advanced problems in clay construction and glaze formation with opportunities for specialization. Field trip. Prerequisite: ART 151.

162. Photography I.  
0+6, Cr. 3. Introduction to the techniques, history, and aesthetics of black-and-white photography. Field trip.

221. Painting.  
0+6, Cr. 3. Problems in painting in oil and other media. Emphasis on color theory and composition. Field trip. Prerequisite: ART 121.

222. Painting: Advanced Studies.  
0+6, Cr. 3. Continuation of ART 121 with increased concentration on students' individual interests. Field trip. Prerequisite: ART 221.

230. Desktop Publishing.  
0+6, Cr. 3. (Also offered as COMM 230.) Introduction to computer information display techniques ranging from computer generated illustration, charts and graphs, to newsletter and related page layout procedures. No prior computer experience is required.

231. Graphic Design I: Typographic.  
0+6, Cr. 3. Introduction to the principles of graphic design. Emphasis is placed on typography. Explores both printed and animated problems. Work is created on the Macintosh. No previous experience is required.

0+6, Cr. 3. Advanced problems in visual communications with emphasis on design in the commercial environment. Focus is on the printed word. Special emphasis on text and image, design theory, computer-aided designs and techniques for presentation. Field trip.

251. Sculpture.  
0+6, Cr. 3. Problems in forming sculptural statements in various materials and techniques such as concrete casting, metal-welding, wood construction, etc. Field trip. Prerequisites: ART 121 and 133 or consent of the instructor.

0+6, Cr. 3. Advanced problems in sculpture processes. Field trip. Prerequisite: ART 251.

282. Photography II: Color.  
0+6, Cr. 3. Introduction to the techniques, history, aesthetics, and criticism of color photography. Students work with color negatives, prints, and transparencies. Field trip. Prerequisite: ART 162 or consent of the instructor.

265. Photojournalism.  
Cr. 3. Study of photography for publications, camera and darkroom techniques. Principles and production of single photographic images, photo series, photographic essays, the photo layout, and slide/sound presentation. Field trip.

274. Art of Fiber.  
0+6, Cr. 3. A basic course in fiber manipulation, including loom weaving, tapestry, coiling. Field trip.

278. Art of Fiber: Advanced Studies.  
0+6, Cr. 3. Advanced techniques and problems in the art of fiber. Field trip. Prerequisite: ART 274.

290. Topics in Art.  
Cr. 3. Specific topics based on interests of students and faculty. Topics may vary from one semester to another. May be repeated for credit if topics are different. Prerequisite: sophomore standing.

ART EDUCATION  
341. Elementary School Art-Methods and Materials Workshop.  
0+6, Cr. 3. A basic course providing the prospective teacher with studio experiences in the selection, organization and use of two- and three-dimensional art and craft materials for the elementary school. This course may not be counted toward a minimum major or a minor in art. Field trip.

342. Secondary and Middle School Art-Methods and Materials Workshop.  
0+6, Cr. 3. A basic course providing the prospective teacher with studio experiences in the selection, organization and use of two- and three-dimensional art materials for the middle, junior and senior high schools. This course may not be counted toward a minimum major or minor in art. Field trip.

489. The Teaching of Visual Arts.  
Cr. 3. (See ED 489.) A study of the methods of teaching art in the secondary schools. This course may not be counted toward a major or minor in art. Field trip. Prerequisite: admission to Supervised Teaching.

SPECIAL STUDIES  
390/590. Special Studies.  
Cr. 1-4. (Graduate Cr. 1-3). Specialized work in the practice of art, the teaching of art and the history of art, arranged by a professor and one or more advanced students. Work in crafts, liturgical design, etc. may be included. A S/U grade option may be stipulated at the beginning of the course. May be repeated for credit. (Graphic Design Internship is taken S/U only.) Field trip. Prerequisites: upperclass major and consent of the instructor. A formal written proposal is required before registration. The proposal becomes a permanent part of the student's file. Prerequisite for graduates: undergraduate art major or consent of instructor.

493. Senior Seminar.  
Cr. 3. Independent work in a studio major's specialized program, combined with participation in group discussion and other special events. This work will result in a senior exhibition and portfolio. Field trip. Prerequisite: senior standing in the Bachelor of Science in Fine Arts program.

495. Independent Study in Art.  
Cr. 3. Independent work for junior or senior level students under the supervision of an instructor. Prerequisite: consent of the instructor.

497. Honors Work in Art.  
Cr. 3. See Honors Work, page 48.

498. Honors Candidacy in Art.  
Cr. 3. See Honors Work, page 48.
Biology

Professors F. Meyer, Tan; Associate Professors G. Davis, G. Evans, Hicks, Scupham (Chair); Assistant Professor Eberhardt.

Biology is the disciplined study of living organisms. It is also a vital part of liberal education, enabling students to develop an appreciation of their own biological nature as well as of the great variety of organisms and communities of organisms with which they come into contact and upon which they are dependent.

The study of biology may be at many levels: molecular, cellular, organismic, population, community, ecosystem. The department offers instruction at each of these levels designed to meet the requirements for graduate study, for professional schools, and for a teaching career in biology or for working in industrial or governmental positions.

The Biology Department is housed in the Neils Science Center, a modern teaching-research facility with state-of-the-art equipment such as advanced research light microscopes and electron microscopes. Nearly all biology courses have a laboratory component and these field or laboratory classes are taught by professors or other experienced faculty. The department makes extensive field trips for its organiomial laboratory courses to the Indiana Dunes National Lakeshore, which ranks third of all National Parks in species diversity, and at other distinguished natural history institutions in the Chicago area. Biology majors are encouraged to conduct research under the supervision of a faculty member as part of the graduation requirements. Majors also have opportunities to study abroad at the University's overseas centers or at affiliated institutions as well as at many highly recognized programs sponsored by national laboratories and other distinguished institutions.

Premedical Arts Programs. A major in biology is an appropriate preparation for admission into professional schools and programs such as medicine, dentistry, hospital administration, medical technology, optometry, osteopathy, physical therapy, podiatry, public health, veterinary medicine and other allied health fields. Further information may be obtained from the Chair of the Department or members of the Committee on Premedical Arts.

Major. A minimum of 28 credit hours in biology is required for the Bachelor of Arts degree. Courses must include BIO171, 172, 270, two of courses 290 to 370, two of courses 420 to 460 and 2 credit hours in 493 and/or 495.

A minimum of 25 credit hours in biology fulfills the minimum requirement for a Bachelor of Science degree, provided that a second major is taken in another science (chemistry, computer science, geology, mathematics, meteorology, physics or psychology). Courses must include BIO 171, 172, 270, one of courses 290 to 370, two of courses 420 to 460 and 2 credit hours in 493 and/or 495. A minimum of 32 credit hours in biology fulfills the requirements of the Bachelor of Science degree with a single major plus one of the following: a non-science major, a Liberal Arts Business Minor, a science minor, or an education minor. Courses must include BIO 171, 172, 270, two of courses 290 to 370, two of courses 420 to 460, and two credit hours in 493 and/or 495, plus four additional credit hours chosen from BIO 290 to 498.

A minimum of 40, but not more than 48 credit hours in biology fulfills the requirements of the Bachelor of Science degree without a major. Courses must include BIO 171, 172, 270, two of courses 290 to 370, two of courses 420 to 460, two credit hours in 493, two credit hours in 495, plus at least six additional credit hours chosen from BIO 290 to 499.

Majors who are candidates for the Bachelor of Science degree must take two semesters of general chemistry and one semester of organic chemistry in addition to the requirement in mathematics or its equivalent (see page 42). Majors who are candidates for the Bachelor of Arts degree must take two semesters of general chemistry. Depending on career goals and special requirements for graduate schools and professional programs, majors are advised to include in their plans of study courses in advanced chemistry, advanced mathematics including calculus, computer science, physics, and statistics.

Minor. A minimum of 16 credit hours in biology constitutes a minor. Two options are offered.

General Biology Minor. Courses must include BIO 171, 172, 270 and four additional credit hours from BIO 290 to 493.

Human Biology Minor. Courses must include BIO 151, 152 and eight additional credit hours from BIO 210 to 493.

Biology Club. Students with an interest in biology are invited to join the Biology Club.

Approval of Schedules. All students taking a major or minor in biology and all students planning to teach biological subjects must have their schedules approved by the Chair of the Department at the beginning of each semester.

Note: Entering students who satisfy requirements for Biology 171 or equivalent by passing a departmental placement examination at the beginning of the freshman year, the College Level Examination Program (CLEP) examination in Biology, or the Advanced Placement Examination (AP) in Biology are granted 4 credit hours toward graduation.

125. Biotechnology. 3-2, Cr. 4. An introductory study of modern biology in which those aspects of biotechnology that affect the welfare of humanity are emphasized. This course is recommended for non-science majors who wish to take only one biology course for partial fulfillment of the General Education Requirements in Natural Science. May be used in partial fulfillment of the General Education Requirements in Science. Prerequisite: BIO 151 or 152 or consent of the Chair of the Department; MATH 110 or placement higher than MATH 110 on the math placement examination.

151. Human Biology I. 3+3, Cr. 4. An introductory study of the physiological nature of cells and tissues, cell division and human genetics, the musculoskeletal system, the nervous system and special senses and the endocrine system and chemical control. May be used in partial fulfillment of the General Education Requirements in Natural Science. Credit is given for either BIO 151 or 171 but not both. This course is required for biology majors and general biology minors including premedical and other non-science majors. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

171. Unity of Life. 3+3, Cr. 4. A survey of organic molecules, cells, tissues and organs for biology majors and minors. Emphasis is placed on the principles which unify all living forms: structure, energetics, physiology, inheritance and development. May be used in partial fulfillment of the General Education Requirements in Natural Science. Credit is given for either BIO 151 or 171 but not both. This course is required for biology majors and general biology minors including premedical and other non-science majors. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

205. Fundamental Nutrition. Cr. 3. A study of the basic principles of nutrition. Emphasis is on practical application and includes a focus on sports nutrition.

210. Microbiology. 3+3, Cr. 4. A study of bacteria, viruses and selected fungi. Major emphasis is given to understanding infectious disease and immunology. Prerequisites: BIO 151 or 171 and CHEM 111 or 121.

260. Human Nutrition. Cr. 3. Basic principles of human nutrition including the functions, requirements and food sources of nutrients. Prerequisites: CHEM 111 and BIO 151 or 152 or consent of the Chair of the Department.

270. Genetics. 3+3, Cr. 4. An introductory study of the basic laws of genetics, the physical and chemical basis of inheritance, genes and their functional and structural units of heredity and development, and qualitative and quantitative aspects of genetic variation. Human genetics and social implications are discussed. May be used in partial fulfillment of the General Education Requirements in Natural Science. Prerequisite: BIO 171 or 151 or equivalent.
290/490. Biological Topics.  
Cr. 2-4. A consideration of various topics in biology through lectures, laboratory work, field work and conferences. The topics are related to staff and student interests. May be taken more than once if topics are different. Prerequisite: certain topics may have specific course requirements. A sample of current and probable topics: Advanced Light Microscopy, Biostatistics, Ecology of South Florida, Electron Microscopy, Experimental Botany, Human Genetics, The Art of Scientific Investigation.

320. Comparative Vertebrate Anatomy.  
2+3, Cr. 3. A comparative study of representative vertebrate animals, with emphasis on structures, functions and laboratory dissections. Prerequisite: BIO 152 or 172.

330. Mammalian Cell Culture.  
2+3, Cr. 3. A study of the theory and practice of culturing mammalian cells. Emphasis is on the application of mammalian cell systems in studying experimental cytology, mutagenesis and somatic cell genetics. Prerequisite: BIO 270.

340. Field Biology: Fall.  
2+4, Cr. 3. This course is designed to acquaint students with organisms they are likely to encounter in the field in the late summer and fall months. The lectures emphasize the flowering plants and insects, the most abundant organisms at this time, but in the field attention is paid to other common or conspicuous organisms. Prerequisite: BIO 172.

350. Field Biology: Spring.  
2+4, Cr. 3. This course is designed to acquaint students with organisms they are likely to encounter in the field during winter and spring months. The lectures emphasize the flowering plants and birds, the most abundant organisms at this time, but in the field attention is paid to other common or conspicuous organisms. Prerequisite: BIO 172.

370. Human Environmental Biology.  
Cr. 3. A study of the relationships between human, technology, and the environment. Emphasis is placed on ecological principles, human population growth, resources, and pollution. Prerequisite: junior standing.

420. Developmental Biology.  
3+3, Cr. 4. An introduction to the descriptive and analytic study of plant and animal development and growth, with emphasis on higher plants and vertebrate animals. Prerequisite: BIO 270.

3+3, Cr. 4. A study of organisms in relationship to their physical and biotic environment. There is considerable field work in local terrestrial and aquatic habitats. Prerequisite: BIO 172 and preferably a prior field course.

450. Molecular Genetics.  
3+3, Cr. 4. A study of the molecular basis of genetic interactions and physiological processes in prokaryotic and eukaryotic organisms. Topics include biochemistry, immunology, and genetic engineering with medical and pharmacological applications. Laboratories emphasize standard microbiological techniques as well as recent advances in gene cloning and molecular genetics. Prerequisites: BIO 270 and CHEM 211 or 221.

460. Cell Physiology.  
3+3, Cr. 4. A study of the fundamental physiological activities of animal and plant cells and tissues. The course includes lectures, assigned readings and laboratory work in cell structure and cell organelles, energy transduction and synthesis, membrane transport, excitability and contraction. Prerequisites: BIO 270 and CHEM 221.

489. The Teaching of Natural Sciences.  
Cr. 3. (See Education 489.) A study of the methods of teaching natural sciences in the secondary schools. Includes lectures, discussions, demonstrations and projects. This course may not be counted toward a major or minor in this department. Prerequisite: admission to Supervised Teaching.

493. Seminar in Biology.  
Cr. 1. Student and staff presentation and discussion of selected topics in biology. Current topics are Animal Behavior, Biology of Algae, Economic Botany, Endocrinology, Genetic Toxicology, How to Build an Embryo, Human Evolution, Immunology, Protozoology, Somatic Cell Genetics, Temperature Regulation, Viruses. Prerequisites: 12 credit hours in Biology or consent of the Chair of the Department: certain topics may have specific course prerequisites. Normally three topics are offered each semester so that during a two-year period a broad spectrum of topics is available. A maximum of four seminars (on different topics) may be credited toward graduation. SU grade optional.

495. Research in Biology.  
Cr. 1-2. Special research problems. Prerequisites: 12 credit hours of biology, consent of a supervising instructor and the Chair of the Department. A maximum of 4 credit hours in this course may be applied toward graduation. SU grade optional.

497. Honors Work in Biology.  
Cr. 3. See Honors Work, page 48.

498. Honors Candidacy in Biology.  
Cr. 3. See Honors Work, page 48.

499. Biology Colloquium.  
Cr. 0-1. Biology majors and minors are encouraged to register for this course. Colloquium presents insights into the living world beyond the material found in regular course offerings. SU grade.

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### Broadcast Meteorology

**Administrative Committee:**  
Associate Professor Kocher (Communication, Chair); Instructor Powell (Communication); Professor Janke (Geography and Meteorology); Assistant Professor Wolf (Geography and Meteorology).

There is a considerable demand nationwide for trained professionals able to effectively and accurately communicate meteorological information, either through the broadcast media or in association with various consulting firms. This major prepares students interested in careers involving broadcasting (cable, television, and radio) and weather forecasting. It is designed to offer sufficient breadth to address necessary preparation in the fields of communication and meteorology. Students selecting this major will have access to the excellent broadcasting and meteorological forecasting facilities in the associated programs.

The Department of Communication operates an industry-quality three-camera production studio, equipped with insert and A/B roll editing bays. Special effects and advanced animation editing is readily available through a Video Toaster system, as well as a Pentium multimedia and Internet workstation.

The Department of Geography and Meteorology maintains the University Weather Center, where students routinely provide weather data and forecasts for Northwest Indiana. Meteorological equipment includes a 50-foot instrumented tower, a UNIDATA PC-McIDAS data retrieval and display system, DIFAX map satellite downlink, and other computers, providing students with considerable hands-on experiences.

Internship opportunities have been established with a number of broadcast stations, including WGN-TV in Chicago. Many students are active members of the University Meteorology Club, which sponsors professional and social events, field trips, and public service. A regional chapter of the National Weather Association is pending.

Students interested in careers with the federal government, or who are planning to attend graduate school in meteorology, should enroll in the Bachelor of Science program in meteorology.

**Program Requirements.** A total of 36 credit hours is required. Students completing the program in Broadcast Meteorology will have fulfilled the major field requirements for the Bachelor of Arts degree.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COMM 101</td>
<td>Media Presentation</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>COMM 201</td>
<td>Historical Development of Communication</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>COMM 280</td>
<td>Radio Production</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>COMM 281</td>
<td>Television Production</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>COMM 354</td>
<td>Broadcast News</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>COMM 358</td>
<td>Advanced Television Production</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>MET 103</td>
<td>Meteorology</td>
<td>4 Cr.</td>
</tr>
<tr>
<td>MET 215</td>
<td>Climatology</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>MET 216</td>
<td>Introduction to Meteorological Observation and Analysis</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>MET 358</td>
<td>Field Study in Meteorology</td>
<td>2 Cr.</td>
</tr>
<tr>
<td>MET 486</td>
<td>Internship in Meteorology or TTV 357</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>MET 490</td>
<td>Selected Topics in Meteorology</td>
<td>3 Cr.</td>
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</tbody>
</table>
Chemistry

Professors Cook, Kosman (Chair); Associate Professor Bradley; Assistant Professors Engerer, Goyne.

Chemistry is the discipline that studies the fundamental nature of matter and the changes in energy and properties accompanying compositional changes in matter. As a scientific discipline, chemistry is firmly rooted in the liberal arts tradition, placing emphasis on the development of intellectual capability and judgment. Yet it is also a very practical discipline dealing with the fundamental technology of matter that affects our environment and our society. Because of the nature of the discipline, a wide diversity of careers is possible with a chemistry major. These range from industrial product development to academic research, from medical and paramedical careers to forensic (law enforcement) chemistry. Government, industry, schools and universities and many private institutions, such as museums, have a variety of openings for chemists. About two-thirds of the chemistry graduates continue their education in graduate, medical, or professional schools. In almost every instance, those who go to graduate school receive complete financial support in the form of a fellowship or an assistantship.

The programs of the Department provide balance between theoretical and practical aspects of chemistry. Opportunities for carrying out directed or honors work research are available. A wide selection of instruments is maintained for student use in instructional laboratory work and research. The Department is approved by the American Chemical Society for the training of professional chemists, and the Beta Sigma Chapter of the Phi Lambda Upsilon Chemistry Honorary Society is located here. A student may choose to work toward a Bachelor of Arts degree which requires at least 24 credit hours in chemistry, a Bachelor of Science degree which requires at least 32 credit hours in chemistry, or a Bachelor of Science degree in professional chemistry which requires at least 40 credit hours in chemistry.

Pre-Medical Arts Programs. A major in chemistry is an appropriate preparation for admission into professional schools and programs such as medicine, dentistry,

hospital administration, medical technology, optometry, osteopathy, physical therapy, podiatry, public health, veterinary medicine and other allied health fields. Further information may be obtained from the Chair of the Department or members of the Committee on Pre-Medical Arts.

Major. There are three different chemistry majors which a student may choose to pursue:

1. Bachelor of Arts degree. A minimum of 24 credit hours in chemistry is required. Courses must include CHEM 122 or 132, 222 and 230. A combination of this major with a minimum major in another science can lead to a Bachelor of Science degree (see page 42).

2. Bachelor of Science degree. A minimum of 32 credit hours in chemistry is required. Courses must include CHEM 122 or 132, 190 or 495, 222, 230, and (311 or 321).

3. Bachelor of Science degree in Professional Chemistry. The program leading to this degree is approved by the American Chemical Society for the training of professional chemists. A minimum of 40 credit hours in chemistry is required. This major must include CHEM 122 or 132, 190, 222, 230, 322, 323, 324, 421, 422, 2 credit hours of 495, and 3 credit hours of advanced courses selected from 315, 316, 317, 332, 390, 440, 450, and 460. PHYS 142 (or equivalent) and MATH 234 (or equivalent) are required. German is the recommended foreign language. With the approval of the Chair of the Department, the chemistry elective may be the Honors Work sequences, CHEM 497 and 498.

Biochemistry Concentration. Within either of the two Bachelor of Science degree options listed above, a student may choose to have a biochemistry concentration. This concentration requires the following courses: CHEM 316 and 317, BIO 171 and 270 along with the courses listed above.

Minor. A minimum of 16 credit hours in chemistry constitutes a minor.

Chemistry Club. The Chemistry Club, and affiliate of the American Chemical Society, provides extracurricular opportunities for students interested in chemistry.

Cooperative Education. Qualified students may combine semesters in chemical research at a professional work site with other semesters of traditional academic studies on campus. Although this program will probably extend the participating student's college education beyond the normal four years, the student will be financially reimbursed by the cooperating employer and also receive credit toward the chemistry major. No more than six credits earned in Cooperative Education may be applied toward minimum requirements of the major in Chemistry. Enrollment in this program is limited by the availability of positions offered by suitable cooperating companies. Eligible students are junior or senior chemistry majors who have completed CHEM 222 with a cumulative grade point average of 2.50 in their mathematics and sciences courses. For further information, refer to Cooperative Education, College of Arts and Sciences, page 49.

Credit by Examination. Credit for CHEM 111, 121, 122 may be earned through the College Level Examination Program subject examination in General Chemistry or through the Advanced Placement Examination in Chemistry.

Approval of Schedules. All students taking a major or a minor in chemistry must have their schedules approved by the Chair of the Department at the beginning of each semester.

111. Introduction to Chemistry.

3+2, Cr. 4. A one semester overview of general, organic, and biochemistry. Required for non-science majors who elect chemistry to meet one of the major science requirement. Students with a major or minor in elementary education, nursing, or dental education ordinarily take this course to meet their chemistry requirement. Students may not receive credit for both CHEM 111 and CHEM 121. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

115. Essentials of Chemistry.

3+2, Cr. 4. A one semester introductory course in the principles of chemistry for engineering students. Prerequisite: MATH 114 or placement higher than MATH 114 on the math placement examination or sophomore standing in the College of Engineering.

121. General Chemistry I.

3+3, Cr. 4. An introductory course in the principles of chemistry for science majors. The first of a two semester sequence. Required of majors and minors in chemistry and students in pre-medical, pre-dental, or medical technology programs, except for students who take CHEM 131. Prerequisite: MATH 114 or placement higher than MATH 114 on the math placement examination.

122. General Chemistry II.

3+3, Cr. 4. A continuation of CHEM 121 with an emphasis on descriptive inorganic chemistry. Prerequisite: CHEM 115, 121, or 131.

131. General Chemistry I.

3+3, Cr. 4. Same lecture as CHEM 121, with a more challenging, in-depth laboratory program. Intended for students who are willing to intensify their learning. Recommended for chemistry majors. Prerequisite: MATH 114 or placement higher than MATH 114 on the math placement examination.

132. General Chemistry II.

3+3, Cr. 4. A continuation of CHEM 131. Same lecture as CHEM 122, with a more challenging, in-depth laboratory program or students who are willing to intensify their learning. Recommended for chemistry majors. Prerequisite: CHEM 115, 121, or 131.

190. Introduction to Chemical Research.

7 weeks, Cr. 1. An introduction to chemical research methods and literature. A laboratory project is required. S/U grade.

221. Organic Chemistry I.

3+3, Cr. 4. An introductory survey of the nomenclature, reactions, structures and properties of carbon compounds. Prerequisite: CHEM 122 or 132.

222. Organic Chemistry II.

3+3, Cr. 4. A continuation of CHEM 221. A further study of the reactions, structures and properties of carbon compounds, including organic reactions. Prerequisite: CHEM 221.

230. Quantitative Analysis.

3+4, Cr. 4. A study of the theory of chemical equilibria, electrochemistry and elementary chemical analysis. The laboratory work consists of an introduction to gravimetric, volumetric and instrumental methods of analysis. Prerequisite: CHEM 115, 122 or 132.

305. Elementary Biochemistry.

Cr. 4. The chemistry of proteins, carbohydrates, fats and nucleic acids, and the changes these undergo during processes of digestion and metabolism. This course is designed for premedical arts students needing a one-semester survey of biochemistry. Prerequisite: CHEM 222 or consent of the instructor.

311. Elementary Physical Chemistry.

Cr. 3. A one-semester course in physical chemistry covering elementary thermodynamics and Atomic structure, together with their applications to various chemical systems. Prerequisites: CHEM 221 and 230 or equivalent. Not open to students who have taken CHEM 321.
Chemistry

315. Biochemistry Laboratory. Cr. 3. A continuation of CHEM 315 that is focused on the biosynthesis of nucleic acids and proteins and the regulation of these processes. Special topics in biochemistry. Prerequisite: CHEM 322.

316. Biochemistry Laboratory. Cr. 3. A continuation of CHEM 315 that is focused on the biosynthesis of nucleic acids and proteins and the regulation of these processes. Special topics in biochemistry. Prerequisite: CHEM 322.

321. Physical Chemistry I. Cr. 3. A theoretical study of chemistry involving thermodynamics, kinetics and modern structural concepts. Prerequisites: CHEM 221 and 230; 230 may be taken concurrently; MATH 152 or equivalent, PHYS 142.

322. Physical Chemistry II. Cr. 3. A continuation of CHEM 321. Prerequisite: CHEM 321.

323. Thermodynamics and Structure Laboratory. 1+3, Cr. 2. Physical chemistry experiments involving thermodynamic and structural properties of atoms and molecules. Prerequisite: CHEM 311 or 321 (may be taken concurrently).

324. Spectroscopy and Bonding Laboratory. 1+3, Cr. 2. Physical chemistry experiments demonstrating the bonding properties of molecules, and the spectroscopic properties of atoms and molecules. Prerequisite: CHEM 322 (may be taken concurrently).

332. Advanced Instrumental Analysis. 2-4, Cr. 3. In-depth study of theory and practice of nuclear magnetic resonance, spectroscopy, chromatography, and electrochemistry. Other topics include electronics (operational amplifier) and computer interfacing. Prerequisite: CHEM 311 or 321.

360. Chemical Literature and Chemical Writing. Cr. 1. Discussion and library work on the important sources of chemical information. Experience in the use of Chemical Abstracts, Beilstein, chemical journals and government publications in chemistry, includes discussion and practice with computerized data bases. Library work leads to the writing of a paper as well as an abstract of a single article. For the student who plans to do graduate work in chemistry. 5U grade.

381. Cooperative Education in Chemistry I. Cr. 0.5-2. Experience in full-time practical work with a cooperating employer. Written report required. Prerequisites: CHEM 222 and approval of the Chair of the Department. 5U grade.

390. Topics in Chemistry. Cr. 3-4. A study of various topics in chemistry. Prerequisite: dependent upon the topic.

421. Advanced Inorganic Chemistry. Cr. 3. A study of advanced topics in inorganic chemistry with emphasis on structure and bonding, transition metal chemistry, and organometallic chemistry. Prerequisite: CHEM 222 and 311 or 321 (may be taken concurrently).

422. Inorganic Chemistry Laboratory. Cr. 0-3. Cr. 1. Experiments involving structures and reactions of inorganic compounds. Prerequisite: CHEM 421 (may be taken concurrently).

440. Polymer Chemistry. Cr. 3. An introduction to the study of macromolecules: their preparation, properties, reaction and use. Emphasis is on synthetic macromolecules. Prerequisite: CHEM 222.

450. Advanced Organic Chemistry. Cr. 3. A study of physical organic chemistry and strategy in modern organic synthesis. Topics include linear free energy relationships, the Woodward-Hoffman rules and semiempirical quantum mechanical calculation techniques for organic molecules. Prerequisites: CHEM 222 and (311 or 321).

460. Quantum Mechanics. Cr. 3. The fundamental concepts of quantum mechanics are examined. Topics include state functions and their interpretations, the Schroedinger equation, approximation methods, multielectron atoms and molecules. Prerequisite: CHEM 322 or consent of the instructor.

482-483. Cooperative Education in Chemistry II-III. Cr. 0.5-2. Continuation of CHEM 381. Prerequisites: CHEM 381, satisfactory employer evaluation, and approval of the Chair of the Department. 5U grade. May be repeated beyond 483 for additional credit.

489. The Teaching of Natural Sciences. Cr. 3. (See ED 489.) A study of the methods of teaching natural sciences in the secondary schools. Lectures, demonstrations and projects. This course may not be counted toward a major or minor in chemistry. Prerequisite: admission to Supervised Teaching.

493. Seminar in Chemistry. Cr. 0. All Chemistry majors are expected to register for this course. Report required in this forum for all those registered for CHEM 493. 5U grade.

495. Special Problems in Chemistry. Cr. 1-2. A course in which each student attacks a chemical problem by study of the literature and by work in the laboratory. A written report is required. Must be registered for CHEM 493 concurrently to report orally on research results. May be repeated for a maximum of 6 credits. 5U grade. Prerequisite: consent of Chair of the Department.


Communication

Associate Professor Kocher (Chair); Assistant Professor Neff; Instructors Powell, Wynn.

The Department of Communication focuses on teaching the process of communication as it applies to the several fields it represents: journalism, public relations, and speech. In all of these fields the department encourages students to become ethical, critical, and effective sources and receivers of communication; it endeavors to motivate them to serve their community. The department stresses solid preparation in the liberal arts. It seeks a balance between liberal arts and skills courses within the department, believing that this balance is essential to developing good communicators, not just technicians trained for particular jobs. The department's programs also strive to demonstrate the linkages between communication studies and the larger issues of the global community. The communication major allows specialization in several areas at the junior and senior levels, including print and broadcast journalism and public relations. Core course and sequencing requirements permit flexibility in arranging a program which focuses on individual student interests in communication.

Major. The communication major consists of 36 credit hours. Required courses are COMM 101, 201, 369, 386 and 460; at least 6 hours and no more than 10 from the following, normally taken during the sophomore year: COMM 243, 250, 251, 261, and 265, 6 to 9 credit hours (junior and senior years) selected from COMM 290, 342, HIST 390; History of the Press in America; and POLS 326, 327, or 361; and 6 credit hours selected from COMM 247, 262, 263, 266, 344, 353, 354, 358, 367, 368, 374, and 390.

Minor. A communication minor is 18 credit hours consisting of COMM 101, 201, 261, and nine hours of Communication electives approved by the Chair of the department.

Public Speaking and Debate Minor. This minor prepares students interested in developing public speaking skills and provides experience in local and regional debate events.

Students electing a minor in Public Speaking and Debate must complete a total of 15 credit hours selected as follows: COMM 145, 243, 247, 342, and 344. For students choosing this minor, COMM 145 and 243 are prerequisites for the other listed courses.

Teaching Programs. Students who plan to teach journalism or speech communication and theatre in secondary schools with a major or minor in communication should consult the Chair of the Department and the Education Department for specific requirements.

Cooperative Education. Qualifying students may participate in prearranged, approved professional work experiences. During their employment, students are financially reimbursed by the cooperating employer. Credits earned in this program apply toward the major and may substitute for internship requirements. For further information, refer to Cooperative Education, College of Arts and Sciences, page 49.

Degree. Students completing the communication major together with the degree requirements of the College of Arts and Sciences fulfill requirements for the Bachelor of Arts degree.

Approval of Schedules. All students pursuing a major or minor in communication must have their schedules approved by their adviser at the beginning of each semester.

SPECIAL OPPORTUNITIES

Television/Radio Studio. The Department teaches all television and radio classes in its production studio. The studio is fully equipped for all levels of television and radio producing and provides a quality laboratory experience. Students are also placed as interns in area television, radio and cable stations. An advanced Internet work station interfaces with the studio and is available for student research and video work.

Student Organizations. The department sponsors the Communication Club and has an active chapter of Women in Communication.
104. Media Presentation.
Cr. 3. An introductory course to a variety of media
writing contexts, including news, public relations,
and writing for public speaking. Students will also be
expected to make oral presentations. Primarily
intended for communication majors as
preparation for more advanced coursework
in the department.

110. Introduction to Internet Communication.
Cr. 3. An introductory course on using the
Global Internet communication network. Students
will study the various Internet services and tools,
develop competency in their use, and acquire
expertise in using the subject searching
capabilities of the Internet. Students will apply
this knowledge to the development of a research
project focusing on communication issues
associated with the Internet. Prior competency in
the Internet and in computers is not expected.
This course is intended for freshmen and
non-traditional students.

140. Public Speaking.
Cr. 2. Fundamental principles of organization,
generation of argument, use of language
and components of delivery for effective construction
and performance of messages in a variety of
speaking/experiences.

145. Interpersonal Communication.
Cr. 3. A study of human communication dealing
with intrapersonal, dyadic, small group and
non-verbal areas. Students participate in a variety of
semi-structured and pre-structured communication
events.

201. Historical Development of Communication.
Cr. 3. This course surveys the contexts and
development of print, public relations, electronic
media, and rhetorical history. Developments in
each area will focus on the larger governmental,
economic, and social contexts within which each
operates. Prerequisites: COMM 101 and
somewhere standing.

230. Desktop Publishing.
0-6, Cr. 3. (Also offers as ART 230.)
Introduction to computer information display
techniques ranging from computer generated
illustrations, charts and graphs to newsletter and
related page layout procedures. No prior
computer experience is required.

Cr. 3. A study of public communication in a
variety of structured settings. Students
participate in public interviews as well as deliver
informative speeches, persuasive speeches,
special occasion speeches and rhetorical
criticism.

247. Persuasion.
Cr. 3. A study of motivational communication.
This course includes theories of persuasion and
offers structured experiences for the producer
and consumer in the persuasive process.

250. Radio Production.
Cr. 3. A practical course in radio production.
Production planning, scripting, using sound
effects, recording, mixing, editing and
performing. Prerequisite: COMM 101.

251. Television Production.
Cr. 3. (Also offered as TTVA 262.) A practical
course in television production. Students
produce programs and acquire experience in all
aspects of production, including scripting, shooting,
editing and performing. Prerequisite: COMM 101.

261. News Writing.
2+4, Cr. 4. A course in the fundamentals of news
writing and news gathering. Practice in writing
various types of news stories: problems of in-
depth writing and reporting; introduction to
newspaper organization and methods.
Laboratory and field work. Prerequisite: ENGL
100 or equivalent.

262. Copy Editing.
Cr. 2. A course in copy editing, headline writing
and newspaper make-up. Basic principles of
news evaluation, photo editing and introduction
to newspaper layout. Laboratory practice.
Prerequisite: COMM 261 or consent of the
instructor.

263. Advanced News Practice.
Cr. 3. A course for the advanced journalism
student, comprising in-depth reporting, opinion
and editorial writing, specialized writing.
Prerequisite: COMM 261 or consent of the Chair
of the Department.

265. Principles of Public Relations.
Cr. 3. Survey of the history, development,
principles and practices of public relations;
investigation of public relations ethics,
relationships and role in mass media and society;
study and experiences in public relations
practices. Prerequisite: COMM 101.

266. Feature Writing.
Cr. 3. A course in human interest writing.
Creative news writing emphasizing originality of
style and imaginative treatment in composition of
news features and the personality sketch.
Laboratory practice. Prerequisite: COMM 261 or
consent of the Chair of the Department.

290. Topics in Communication.
Cr. 3. Specific topics based on interests of
students and faculty. Topics may vary from one
semester to another. May not be repeated for
credit. Prerequisite: sophomore standing.

324. Rhetorical Thought.
Cr. 3. A study of the theories of rhetoric as a
force in the political and intellectual development
of Western cultures. This course includes
selected theorists from Plato and Aristotle to
Kenneth Burke.

344. Argumentation.
Cr. 3. This course includes structured
experiences in the research and development of
case construction, rebuttal and
presentation. Includes preparation for participation
in competitive debate team events. Prerequisite:
consent of the Chair of the Department.

353. Broadcast Programming.
Cr. 3. Theories of programming, current program
forms, examination of the structure and function
television and radio programming practices,
including relationships to entertainment,
information and the audience. Prerequisite:
COMM 101.

Cr. 3. A course in the fundamentals and special
requirements of radio and television news
reporting, writing and editing. Laboratory and field
work. Prerequisite: COMM 261 or consent of the
Chair of the Department.

358. Advanced Television Production.
Cr. 3. (Also offered as TTVA 358.) Workshop
format emphasizing advanced production and
program practices. Projects include preparation
of television materials for possible off-campus
usage. Prerequisite: COMM 261 or consent of the
Chair of the Department.

357. Editorial and Opinion Writing.
Cr. 3. A course in structure, style and principles
of editorial, column, commentary and critical
review writing. Laboratory practice. Prerequisite:
COMM 261 or consent of the Chair of the
Department.

368. Public Relations Copywriting.
Cr. 3. Persuasive and effective copywriting.
Prerequisites: COMM 261 and 265.

Cr. 3. Discussion of major legal and ethical issues
which affect the mass media. Prerequisite: junior
or senior standing or consent of the Chair of the
Department.

374. Advanced Public Relations.
Cr. 3. Advanced study with emphasis on practical
work, problem solving and case studies.
Prerequisite: COMM 265 or consent of the Chair
of the Department.

381. Cooperative Education in
Communication I.
Cr. 0.5-3. Professional work experience with a
cooperating employer. Written report required.
Prerequisite: approval of the Chair of the
Department.

382-383. Cooperative Education in
Communication II-III.
Cr. 0.5-3. Continuation of COMM 381. Prerequisite:
COMM 381 and approval of the Chair of the
Department. May be repeated beyond 383 for
additional credit.

386. Internship.
Cr. 3. Internships in which students may
intensively study a particular area of
communication. Prerequisite: consent of the
department Internship Coordinator. Open to
declared communication majors only.

390. Topics and Projects.
Cr. 1-3. Individuals or group. Specific topics or
projects based on special interests of students
and faculty. Topics and projects vary from one
semester to another. Prerequisites: consent of the
Chair of the Department.

400. Communication Research Seminar.
Cr. 3. Application of communication research
techniques to selected topics, such as censorship
in the arts, liberal law, and media sensationalism.
Research techniques may include content
analysis, surveys, experiments, and historical
methods. Prerequisite: senior standing or
consent of the Chair of the Department.

475/575. Mass Media in Modern Society.
Cr. 3. Study of interaction between mass media and
society. Freedom of the press theories,
communication theory and relationships in
the role of mass media with government, business,
the courts and other segments of society. Open
to juniors and seniors.

492. Supervision of Student Publications.
Cr. 3. Problems and practices of supervision of
secondary school student newspapers,
magazines, yearbooks and other school
publications. Includes examination of state-
adopted texts, the role of the high school press,
budgeting and financial responsibilities,
organizing staffs, working with school
administration, establishing curriculum, reviewing
other school publications and basic journalistic
styles. May not be counted toward a major or
minor in this Department. Field Trip. Prerequisite:
attendance to Supervised Teaching and COMM 262,
or consent of the designated adviser.

497. Honors Work in Communication.
Cr. 3. See Honors Work, page 48.

498. Honors Candidacy in Communication.
Cr. 3. See Honors Work, page 48.
East Asian Studies

Administrative Committee: Professor Ludwig (Theology); Schoppa (History, Chair); Associate Professor Henderson (Economics); Assistant Professors Kavanagh (Foreign Languages and Literatures), Kerr (Christ College), Lin (Political Science), McGuigan (College of Arts and Sciences).

Students completing the program in East Asian Studies will have fulfilled major field requirements for the Bachelor of Arts degree under the interdisciplinary program option. Students majoring in another field may fulfill the major field requirements by completing a second major or a minor in East Asian Studies.

Objectives. Programs in East Asian Studies provide an opportunity for students to focus their study on this important area of the world, by examining the history, culture, and religions of China and Japan, in addition to developing some proficiency in the Japanese language. It provides essential background for students considering a career in education, business, government, or the arts related to the East Asian cultural sphere. Students are strongly encouraged to participate in overseas programs in East Asia, particularly at the University's exchange program at Hangzhou University and at Kansai Gaidai and Osaka International University in Japan. Courses taken in exchange programs may be used to fulfill major and minor requirements.

Program Requirements. A minimum of 53 credit hours, selected from the following list of courses approved by the Administrative Committee. A number of these courses may also be counted toward fulfillment of the General Education Requirement for the Bachelor of Arts degree. FLJ 101 and 102 may fulfill the Foreign Language Requirement; any of the theology courses may fulfill the Theology Level III Requirement; any of the history courses or PHIL 260 or 290 may fulfill the Philosophical and Historical Studies Requirement; ART 311 may fulfill the Fine Arts/Fine Arts-Literature Requirement; and any appropriate course may fulfill the Non-Western or Third World Studies Requirement. Other appropriate courses, including credits in supervised reading and research, may be substituted with the permission of the Chair of the Committee. Courses must include EAST 115 and 493, HIST 240, HIST 241, FLJ 101 and 102 or FLC 101 and 102 or EAST 109 and 110, FLJ 250 or 251, POLS 335 or 495 (East Asia), THEO 363, one additional course in history, plus 21 credits in elective courses.

Complementary Major. A student fulfilling major field requirements under a Major Option in another field may present as a second major an area major in East Asian Studies. The requirement for the second major is a minimum of 35 credit hours selected from the following list of courses. Other appropriate courses, including credits in supervised reading and research, may be substituted with the permission of the Chair of the Committee. Courses must include EAST 115 and 493, HIST 240, HIST 241, FLJ 101 and 102 or FLC 101 and 102 or EAST 109 and 110, THEO 363, one additional course in history, plus 9 credits in elective courses.

Minor. A student fulfilling major field requirements under a Major Option in another field may present an area minor in East Asian Studies for the required minor. The requirement for the minor is a minimum of 18 credit hours selected from the following list. Courses must include EAST 115, HIST 240, HIST 241, and THEO 363. It is strongly recommended that the student also complete FLJ 101 and 102 or FLC 101 and 102 or EAST 109 and 110. Only one course in Japanese or Chinese may be counted toward the East Asian Studies minor.

East Asian Studies Courses

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ART 311</td>
<td>Topics in the Theory and History of Art: East Asian Topics</td>
<td>3</td>
</tr>
<tr>
<td>FLJ 101</td>
<td>Beginning Chinese I</td>
<td>4</td>
</tr>
<tr>
<td>FLC 102</td>
<td>Beginning Chinese II</td>
<td>4</td>
</tr>
<tr>
<td>FLC 203</td>
<td>Intermediate Chinese I</td>
<td>4</td>
</tr>
<tr>
<td>FLC 204</td>
<td>Intermediate Chinese II</td>
<td>4</td>
</tr>
<tr>
<td>COMM 390</td>
<td>Topics and Projects: East Asian Topics</td>
<td>1-3</td>
</tr>
<tr>
<td>ECON 390</td>
<td>Topics in Economics: East Asian Topics</td>
<td>3</td>
</tr>
<tr>
<td>GEO 314</td>
<td>Regional Geography of Asia</td>
<td>3</td>
</tr>
<tr>
<td>HIST 240</td>
<td>Traditional East Asian Civilization</td>
<td>3</td>
</tr>
<tr>
<td>HIST 241</td>
<td>Modern East Asian Civilization</td>
<td>3</td>
</tr>
<tr>
<td>HIST 341</td>
<td>History of Modern China</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HIST 342</td>
<td>History of Modern Japan</td>
<td>3</td>
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<tr>
<td>HIST 390</td>
<td>Topics in History: East Asian Topics</td>
<td>3</td>
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<tr>
<td>HIST 492</td>
<td>Reading and Discussion Seminars: East Asian Topics</td>
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<tr>
<td>FLJ 102</td>
<td>Beginning Japanese I</td>
<td>4</td>
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<tr>
<td>FLJ 203</td>
<td>Intermediate Japanese I</td>
<td>4</td>
</tr>
<tr>
<td>FLJ 204</td>
<td>Intermediate Japanese II</td>
<td>4</td>
</tr>
<tr>
<td>FLJ 250</td>
<td>Topics in Japanese Literature and Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>FLJ 251</td>
<td>Introduction to Japanese Literature</td>
<td>3</td>
</tr>
<tr>
<td>FLJ 305</td>
<td>Advanced Japanese I</td>
<td>4</td>
</tr>
<tr>
<td>FLJ 306</td>
<td>Advanced Japanese II</td>
<td>4</td>
</tr>
<tr>
<td>FLJ 495</td>
<td>Supervised Reading and Research in Japanese</td>
<td>1-4</td>
</tr>
</tbody>
</table>

These credits may apply toward the general education foreign language requirement.

Approval of Schedules. All students taking a major in East Asian Studies must have their schedules approved by the Chair of the Administrative Committee at the beginning of each semester.


EAST 115. Cultures of China and Japan. Cr. 3. An introduction to the cultures of China and Japan, focusing on the traditional roots of contemporary civilization.


EAST 399. Chinese Culture and Civilization. Cr. 3. An interdisciplinary study of key aspects of Chinese culture and civilization. Taught in English. This course will satisfy the Fine Arts/Fine Arts Literature and Global Cultures and Perspectives component of the General Education Requirements. Offered only in China.

EAST 493. East Asian Senior Seminar. Cr. 3. Research in the basic cultural themes of East Asia and their impact on the world today. Prerequisite: consent of the Chair of the Committee.

EAST 495. Supervised Reading and Research. Cr. 1-3. Prerequisite: consent of the Chair of the Committee.


Economics

Professor Henderson (Chair); Associate Professor Bernard; Assistant Professor Singleton.

Economics provides a logical, ordered way of looking at problems, issues and policies regarding the production, distribution, and consumption of goods and services. It draws upon other social sciences and mathematics to confront a wide range of topics from environmental abuse to economic growth to business regulation and other governmental interactions with the commercial world. As economics in general deals with choice and decision making, it is of great value on both a personal and a professional level.

Economics majors have a wide range of career choices, including government or business economist, banking economist, investment analyst, trade association economist and others.

Students who distinguish themselves by high scholarship may be elected to Omicron Delta Epsilon, a national economics honorary organization.

Major. Requirements for the major in economics may be fulfilled by completion of one of the following programs. Two of the four economics electives must be at the 300 level or higher.

General Economics Major. A minimum of 27 credit hours in economics constitutes this major. Courses must include ECON 221, 222, 321, 322, and 325. In addition, either DS 205 or MATH 240 is required.

Economics and Computer Analysis Major. A minimum of 27 credit hours in economics is required. Courses must include ECON 221, 222, 321, 322, and 325. Computer science courses which must be completed are CS 157, 225, and 325. Also required is a minor in mathematics including MATH 124, 131, or 151, (122, 132, or 152), 240 and 320 (an approved alternative).

General Economics Minor. A minimum of 18 credit hours in economics constitutes a minor. Courses must include ECON 221, 222, and 12 hours of elective course work in economics.

Degree. Completion of the degree requirements of the College of Arts and Sciences with a major in Economics leads to the Bachelor of Arts degree.

Credit by Examination. Credit for ECON 221 and 222 may be earned through the College Level Examination Program subject examination in Introductory Economics.

Approval of Schedules. All students taking a major or minor in economics must have their schedules approved at the beginning of each semester.

136. The Economics of Health, Education, and Welfare. Cr. 3. This course is an introduction to the economics of public and private provision of health, education and social services in urban and developing economies.

210. Environmental Economics and Policy. Cr. 3. An introductory study of the relationship between environmental quality and economic behavior, with an emphasis on the principles of demand, costs, and economic efficiency. Current developments in the United States and world environmental policies will be analyzed.


222. Principles of Economics-Macro. Cr. 3. An introduction to macro-economic analysis with emphasis on national income, consumer spending, investment, government and monetary aspects.

223. Principles of Economics-International. Cr. 3. An introduction to international aspects of economics with emphasis on international trade, international finance, comparative economic systems, and problems facing developing nations.

233. The Economics of Race and Gender. Cr. 3. Investigates the employment gaps and earnings gaps that exist between women and men, and between various racial and ethnic groups in America. Economic analysis of discrimination and its consequences for individuals and families.

236. Comparative Economic Systems. Cr. 3. A comparative analysis of political theories and the economic systems that derive from those theories. The course focuses on those ideological assumptions that exist between capitalism, socialism, anarchism, etc. as the solution to economic problems. Prerequisite: consent of the instructor.

321. Intermediate Micro-Economic Theory. Cr. 3. A study of the theoretical concepts and analytical techniques which economists employ to interpret the process of resource allocation under various systems of economic organization. Prerequisite: ECON 221.


324. Managerial Economics. Cr. 3. A course in applied economics which emphasizes the use of microeconomics, statistics and mathematics in the process of making managerial decisions. Using problems and short case studies, topics such as estimating demand, cost, productivity and pricing policies are discussed. Prerequisite: ECON 221.

325. Econometrics. Cr. 3. The application of mathematical and statistical techniques to the analysis of economic issues. Development of simple and multiple regression as tools of analysis. Use of computer facilities and statistical programs to apply the tools to current economic data. Prerequisites: ECON 221 and 222, MATH 240 or DS 205 and equivalent.

326. International Economics. Cr. 3. A study of the basis for the gains from international trade including the effects of growth and development on a nation's welfare. Attention is also given to the effects of tariffs and other restrictions to trade. Balance of payments accounting, foreign exchange markets and international monetary institutions are covered during the last part of the course. Prerequisites: ECON 221 and 222.

330. Industrial Organization. Cr. 3. The analysis of the economic factors underlying the structure, conduct and performance of American industry. Prerequisite: ECON 221.

331. Government Regulation of Business. Cr. 3. A survey of government regulations of private business, monopoly and unfair competition with emphasis on health and safety regulations, consumer and environmental protection. Utilizing basic economic analysis, attention will be given to how regulation affects individuals and firms, the costs and benefits to society of regulation and the alternatives to the present approaches to regulation. Prerequisites: ECON 221 and 222.

333. Economics of Labor. Cr. 3. The agency of workers and employers to the problems of labor; the development of trade unions and collective government regulation of labor relationships, and an economic analysis of wage-employment problems. Prerequisite: ECON 221.

335. Urban Economic Problems. Cr. 3. An examination of the regional and spatial characteristics of cities with emphasis on policies to correct urban problems. Transportation, housing, poverty and discrimination plus other substantive urban problems are analyzed and discussed. Prerequisites: ECON 221 and 222.

336. Economics of Developing Nations. Cr. 3. An analysis of economic variables, both theoretical and institutional, which characterize developing nations. Emphasis is placed on cyclical poverty, allocation of resources and policy planning. Prerequisite: ECON 221 or 222 or consent of the instructor.

337. Public Finance. Cr. 3. An analysis of the role of the government sector in a market economy. Causes of market failure, the efficient provision of public goods and the effects of taxation are considered as they relate to economic activity. Prerequisite: ECON 221 or 222.

339. Money and Banking. Cr. 3. A study of the institutions, principles and problems of money and banking in the United States. Special attention is given to the basic elements of monetary theory and policies. Prerequisite: ECON 222.

360. Economic History of the United States. Cr. 3. The history of the economic development of the United States from the colonial period to the present.

365. Modern European Economic History. Cr. 3. A history of the economic development of Western Europe from 1750 to the present. Emphasis is on the role of the industrial revolution and its impact on the modern person.

370. The History of Economic Thought. Cr. 3. Economic thought in its historical development from the Mercantilists to the present day. Prerequisite: ECON 221 or 222 or consent of the instructor.

390. Topics in Economics. Cr. 3. A course in which a special topic in economics is given intensive study. The topic varies from year to year. Prerequisites: ECON 221 and 222. Recommended for senior students.

493. Seminar in Applied Statistics. Cr. 3. Also offered as DS 493 and as MATH 493.) An intensive study of selected topics, methods, techniques, and problems in applied statistics. Prerequisites: DS 340, ECON 325, or MATH 340.

495. Independent Study in Economics. Cr. 1-3. Independent study to be approved by the Chair and the economics adviser.


All secondary education students have an academic major in another department. They will also have a teaching major. The two are not necessarily the same. The teaching major consists of the area of concentration leading to certification and may include courses that do not apply to the academic major.

A teacher education adviser will be assigned to every secondary education student. The student needs to secure the teacher education adviser's signature along with the major adviser's signature on each semester's registration form and on applications for admission to the teacher education program and to the professional semester.

**Minor.** Only students preparing to meet secondary education certification requirements may minor in education. University degree requirements call for a major outside the field of education. Normally this academic major is in the primary teaching field. For specific requirements of a teaching minor, consult the Chair of the Education Department.

**Elementary Education**

Completion of the degree requirements of the College of Arts and Sciences with a major in elementary education leads to the Bachelor of Science in Education degree.

Undergraduate students who wish to teach in an elementary school should complete the requirements for this degree. This does not in itself qualify a student for a teacher's certificate or license in any given state.

Course work must include the following as a minimum:

1. **Language Arts:** 16 credit hours. Must include nine credit hours in written and oral communication and a course in children's literature, ENGL 478: Literature for Children.

2. **Social Studies:** 12 credit hours. Must include HIST 100: The Western World in Global Perspectives; a course in United States history, a course in world civilization and a course in Social Analysis selected from economics, geography, political science or sociology.

3. **Conservation:** 3 credit hours. One course; see GEO 160: Conservation of Natural Resources, or BIO 370: Human Environmental Biology.

4. **Science:** 8 credit hours. Must include a course in biology and one course in physical science selected from chemistry, physical geography or physics.

5. **Mathematics:** 9 credit hours. Must include mathematics course work specifically designed for elementary teachers, MATH 211/213 and 212/214.

6. **Arts:** 6 credit hours. Must include one course in music appreciation or methods of teaching music and one in art appreciation or art history or methods of teaching art.

7. **Other subjects:** 8 credit hours. Must include PSY 110, 1 credit hour of PE 101-105, SPED 340, and electives from this area to total 8 credit hours.

8. **Freshman Seminar:** 3 credit hours.

9. **General Education Electives:** Elect from the above categories further courses to a total of 70 credit hours.

10. **Theology:** 9 credit hours.

11. **Integrative Studies:** 3 credit hours.

12. **Education:** 38 credit hours. Must include ED 203, 204, 305 or 306 or 307, 321, 322, 323, 324, 327, 328, 403, 433, 439 or SPED 449.

13. **Other electives:** In addition to the above requirements, the student must present sufficient electives to achieve the 124 credit hours required for graduation.

**Additional Teaching Endorsements.** Students completing an elementary education degree and certification requirements may also obtain additional teaching endorsements in junior high/middle school, learning disabilities, and reading, as well as other subjects. Additional coursework is necessary to satisfy requirements for these extra endorsements.

**Secondary Education**

Programs in visual arts, physical education, and music can be taken as all-grade (1-12); all other programs are taken for senior-junior high/middle school licensing.

**Advising.** Before admission to the Teacher Education Program, secondary school teacher candidates are asked to consult the Education Department Office.
### The Teacher Education Program

**Admission.** To be admitted to the Teacher Education Program, a student must submit a written application to the Education Department. This application should be submitted while enrolled in ED 203 or 204. Students may also obtain the application information from the Professional Development and Placement Office.

Action on each application is taken by the Admissions and Retention Committee of the Education Department and is based on the following criteria:

1. **Grade point average.**
   - Normally an applicant must have a standing of 2.50 or higher in all course work taken at Valparaiso University, a minimum of 12 credit hours at this University, and at least 2.00 in all course work taken in the Education Department. Post-baccalaureate students must have a standing of 2.75 in all course work (12 credit hours minimum) taken at Valparaiso University after earning the bachelor's degree.

2. **Communication grade point average.**
   - An applicant must have obtained a grade point average of 2.25 or better in required composition courses and speech course at Valparaiso University.

3. **Basic Skills Test.**
   - Applicants to the teacher education program must furnish passing scores on the basic skills test named the Pre-Professional Skills Test (PPST). These tests are administered at national testing sites eight times during the academic year. It is the responsibility of the student to register for and take the test. The scores shall be sent to the Department of Educational at Valparaiso University. The expense involved in taking this test is the responsibility of the student. The student must submit passing scores in three skill areas (reading, writing, and math). Information about test registration and administration will be furnished to students during the course taken during the sophomore year or information may be obtained from the Professional Development and Placement Office.

4. **Health.**
   - An applicant shall be free of serious mental or physical health problems that might impair future teaching effectiveness.

5. **Character.**
   - An applicant must have shown the social and emotional maturity, moral character, responsibility and dependability necessary for success in the teaching profession.

6. **Recommendations.**
   - Positive recommendations from two faculty members must be obtained by each applicant. One of these must be obtained from the ED 203 instructor. The other should be obtained from the major adviser. A third recommendation must also be received from a field experience cooperating teacher.

Appeals from the decisions of the Admissions and Retention Committee should first be directed to that Committee; if the decision is still unfavorable, appeal should be submitted in writing and directed to the Education Department faculty through its Chair.

**Professional Semester.** This semester is required of all candidates who wish to be recommended for an initial teaching certificate. This semester includes coursework and student teaching required to meet standards for certification. During this semester the student should enroll only in courses approved for the Professional Semester.

**Admission to the Professional Semester.** Preliminary application for admission to the Professional Semester (including Supervised Teaching) must be filed and completed in person with the Professional Development and Placement Office by March 1 of the Spring Semester before the academic year in which the student teaching is to be done. To be eligible...
Education

Placement of Student Teachers. The placement and the direction of supervised teaching experiences are the responsibilities of the Professional Development and Placement Office. Approved elementary and secondary student teachers are assigned to selected schools in Northwest Indiana. Students are responsible for arranging for their own transportation.

Placement of Graduating Teachers. The Professional Development and Placement Office gives assistance to beginning and advanced teacher candidates who have completed requirements for certification. All candidates are encouraged to file their credentials with this office before graduation.

Students who complete their undergraduate education at Valparaiso University are entitled to use the placement services at no cost until September 30 after completion of the certification program. A twenty dollar fee is charged per year if a teacher candidate wishes to use the placement service after this time.

EDUCATION COURSES

203. Introduction to Teaching. Cr. 2. For teacher education students or those who wish to explore teaching as a career. An introduction to the teaching profession, the role of teachers, and the standards that govern education in a multicultural society. One half of the course will be a 40 hour field experience in an elementary or secondary school.

204. Educational Psychology. Cr. 3. A study of psychological research and theory related to child and adolescent development and the learning process. Prerequisite: PSY 110.

Note: No undergraduate student is admitted to any course beyond ED 203, 204, or SPED 340 or 345 unless admitted to the Teacher Education Program or permitted to do so by the Chair of the Education Department or the Admissions and Retention Committee.

305. Computers in Education I. Cr. 1. An introductory course designed to prepare teachers to use computers in the classroom. Students will learn computer terminology and operations, critically evaluate tutorial software appropriate for use in schools (K-12), and gain skill in using word processing as a tool for personal and professional use.

306. Computers in Education II. Cr. 1. An intermediate course designed to prepare teachers to use computers in the classroom. Students will select appropriate software for use in specific content areas, gain skills in using Data Base and/or Spreadsheet as a tool for personal and professional use, and experienced LOGO as structured programming language.

307. Computers in Education III. Cr. 1. An advanced course designed to prepare teachers to use computers in the classroom. Students will select and/or develop appropriate software for use in specific content areas. Topics include desktop publishing, advanced LOGO, CD ROM, telecommunications, hyper-card, and new computer technologies as they are developed.

321. Principles of Elementary Education. Cr. 3. This course is designed to (1) study the organization of instruction, classroom assignment, measurement and evaluation and the legal rights and responsibilities of the teacher, (2) consider the elementary classroom from varied perspectives and (3) re-examine the purposes of education, schooling, instruction and the role of the professional teacher. Includes a field component.

322. Methods of Teaching Language Arts in the Elementary School. Cr. 3. A study of the principles, content, curriculum, methods and techniques involved in teaching the language arts in the elementary school. Includes a field component.

323. Methods of Science Education. Cr. 2. This course will (1) explore the basic orientations that will have survival value in our world, (2) study the philosophy of science education with an understanding of these orientations and appropriate use for science instruction: Discovery Model, Inquiry Model, and Experiential Model. Includes a field component.

324. Methods of Teaching Mathematics in the Elementary School. Cr. 2. A study of techniques and instructional materials for teaching mathematics in the elementary school. Topics include sequencing, diagnostic and remediation strategies, and appropriate use of concrete materials in planning, organizing, implementing and evaluating instructional practice. Includes a field component.

327. Methods of Teaching Social Studies in the Elementary School. Cr. 2. This course is design to (1) study the historical development and present trends in the subject area of social studies, (2) explore the role of social studies in school curriculum, (3) examine current methods and materials unique to social studies, and (4) plan and implement a social studies unit. Includes a field component.

328. Developmental Reading for Elementary Teachers. Cr. 3. A detailed study of basic and developmental reading programs and methods.

Students learn ethnic, cultural and linguistic differences and their effects on reading ability. A variety of materials and procedures used in contemporary schools is an integral part of class work. A field experience is included.

361/561. Foundations of Language and Reading. Cr. 3. This course of lectures includes the interaction between thought and language processes, the basic elements of the reading process, diagnostic tools in reading assessment and multicultural implications of the reading process.

433. Diagnostic and Corrective Reading for Elementary Teachers. Cr. 3. Examination of the psychology of reading difficulties, individual diagnostic techniques, and the planning of reading programs to meet individual needs. Special emphasis is placed on reading in the content areas. This course is taken during the student teaching semester and includes a field component.

439. Supervised Teaching in the Elementary Grades. Cr. 12. This course gives the student opportunities for observation, actual classroom teaching and participation in related activities in elementary schools under the direction of the supervising teacher and the University field instructor. Students are expected to give full time to this course for a minimum of twelve weeks of the semester. Prerequisites: senior standing and concurrent enrollment in the Professional Semester. See Admission to the Professional Semester above for conditions of eligibility. Students enrolled in this course may not carry a load of more than 15 credit hours. SUJ grade.

457. Principles and General Methods of Teaching in the Secondary Schools. Cr. 3. A study of the understandings, knowledge, and skills necessary for effective secondary and middle school teaching. Topics addressed are curriculum development, instructional planning, classroom management, the student-teacher interaction, methods and strategies of instruction, assessment, and issues of multiculturalism and equality. Students reflect on their own teaching and learning experiences and observations of current practices as they begin to formulate their own teaching philosophies. This course should be taken the semester prior to the professional semester.

459. Supervised Teaching in the Secondary School Subjects. Cr. 10. Each student is assigned to a middle or secondary school for laboratory experiences, which includes at least ten weeks of full-time classroom observation, classroom teaching and related activities. Prerequisites: senior standing and concurrent enrollment in the Professional Semester. See Admission to the Professional Semester above for conditions of eligibility. Students enrolled in this course may not carry a load of more than 19 credit hours. SUJ grade.
460/560. Reading in the Content Areas.
Cr. 3. This course offers students readings, experiences, writing opportunities, and discussions which lead to an understanding of literacy, the reading process, and the critical role language plays in the learning process. Students gain knowledge of specific assessment tools and processes, methods for planning instruction, and a range of reading, writing, and study strategies appropriate for helping pupils read to learn.

465/565. Reading Disabilities and Practicum in Corrective Reading.
3+3, Cr. 4. Lectures and demonstrations on the general nature of identification, diagnosis, and classification of reading problems at all age levels and levels of instruction. Course also includes a practicum component with students at the elementary, middle, and junior high school levels whose reading disabilities are mild to moderate. Practicum provides experience in assessing reading performance, planning reading programs, and implementing various instructional strategies in the area of reading. Prerequisite: 3 credit hours of course work in reading or chair's approval.

470/570. Introduction to Educational Media.
2+2, Cr. 3. An introduction into the ways of effective selection and utilization of media, both material and equipment. The course includes laboratory experience in the production of materials and equipment operation in different media.

471/571. Kindergarten Education.
Cr. 3. This course deals with the curriculum, teaching techniques and materials used in the nursery school and kindergarten. Special emphasis is given to the education needs of the pre-school child.

Cr. 3. A course dealing with theory of measurement, interpretation of measurement data and testing in relation to pupil achievement and guidance.

474. Teaching and Learning in a Multicultural Environment.
Cr. 1. An exploration of issues related to teaching and learning in a school with a culturally diverse population. Restricted to students enrolled in the Secondary Education Professional Semester.

475/575. Principles of Middle Level Education.
2+3, Cr. 3. A study of the development, organization and curriculum of junior high and middle schools with emphasis on the unique societal and educational roles played by these institutions and the programs and methods appropriate for students at this level. Field experiences include a minimum of forty hours of practical involvement in activities in schools with diverse populations. Restricted to students enrolled in the Secondary Education Professional Semester or with chair's approval.

477/577. Practicum in Junior High/Middle School.
Cr. 3. Each student is assigned a minimum of 80 hours of supervised field experiences in a junior high or middle school. The experience includes working with students individually and in small and large groups. Must be taken concurrently with ED 475/575.

Cr. 2. A study of the historical, sociological, legal, and philosophical foundations of education, with emphasis on the multicultural aspects inherent in each area and current issues and trends in education.

489. Special Methods in the Academic Courses in Secondary Education.
Cr. 3. This course is administered by the Education Department. It is given in the various departments of the College of Arts and Sciences under the following titles:
- The Teaching of English
- The Teaching of Foreign Languages
- The Teaching of Mathematics
- The Teaching of Music
- The Teaching of Natural Sciences
- The Teaching of Physical Education
- The Teaching of Social Studies
- The Teaching of Visual Arts

490/590. Current Problems in Education.
Cr. 1-3. An intensive study of an area of education. Subtitles, amount of credit and content depend on instructor's choice and student interest.

495. Independent Study in Education.
Cr. 1-3. Independent work to be done in a specific area of special education as agreed upon by the student and faculty adviser. Proposals must be approved before registration by the Chair of the Department.

497. Honors Work in Education.
Cr. 3. See Honors Work, page 48.

498. Honors Candidacy in Education.
Cr. 3. See Honors Work, page 48.

SPECIAL EDUCATION COURSES

Cr. 3. A course designed to introduce P.L. 101-476, P.L. 99-456, and P.L. 94-142; the special needs of exceptional students; the practice of educating them in multicultural settings in the least restrictive environment.

345. Individuals with Learning Disabilities and Practicum.
2+4, Cr. 4. An examination of characteristics of learning disabilities and their effects on academic achievement, behavior, social interaction, and adult outcomes. Current and historical theoretical orientations regarding diagnosis, assessment, and interventions for students with learning disabilities are emphasized. The course also includes a minimum of 80 hours of practicum experience for prospective teachers of students with learning disabilities. The practicum emphasizes direct observation of diagnostic, teaching, and management techniques in classrooms serving students with learning disabilities. Prerequisite: SPED 340 or concurrent enrollment.

344. Assessment in Special Education.
Cr. 3. This course will develop test administration and interpretation competencies in identification and diagnosis of exceptionalities. Psychometric research, acuity screening, individualized diagnostic and achievement tests, learning capacity and aptitude instruments will be analyzed in case study and E.P. contexts. Prerequisite: ED 343/543 or concurrent enrollment.

345. Teaching the Student with Mild Disabilities.
Cr. 4. This course will provide various compensatory, corrective, and remediation instructional strategies in reading, language arts, mathematics, social studies, science and vocational skills. The course will emphasize effective teaching methods, diagnostic-prescriptive teaching techniques, and individual educational planning for students with learning and mild disabilities. Required curriculum project. Prerequisite: SPED 345, 444, or concurrent enrollment.

449. Supervised Teaching in General and Special Education.
Cr. 10-12. This course combines into one semester the experience of observation, classroom teaching, and participation in related activities in elementary or secondary school settings, and special education (learning disabilities) settings. Under the direction of the cooperating teachers and University field instructor, the student-teacher has both general and special education teaching experiences. Prerequisites: senior standing, SPED 445, and admission to the professional semester. S/U grade.

490/590. Current Problems in Special Education.
Cr. 1. An intensive study of an area of special education. Subtitles, amount of credit and content depend on instructor's choice and student interest.

495. Independent Study in Special Education.
Cr. 1-3. Independent work to be done in a specific area of special education as agreed upon by the student and faculty adviser. Proposals must be approved before registration by the Chair of the Department.
English

Professors G. Eifrig, Feaster, Juneja, Maxwell, A. Meyer, Sponberg (Chair), Uehling, Wangerin; Associate Professors Byrne, Hall, Mullens, Sandock; Assistant Professors Bhattacharya, Ruff.

The English Department offers a variety of courses for both English majors and other students. These courses help students to use the English language maturely and sensitively and to develop their capacities to enjoy and understand imaginative literature. Many non-English majors enroll in upper division courses and students can expect any class to display a spectrum of interests and backgrounds. Relatively small class size allows teachers to cultivate a close relationship with professors and to ripen their analytical and expressive skills through writing and discussion. In addition to preparing a student for graduate work or for teaching in secondary schools, an English major provides an excellent qualification for numerous careers and professions. Many schools of medicine, law and theology view an English major as highly desirable for acceptance into their programs. Business and government employ English majors for positions in human resources, sales and marketing, public relations, systems analysis and advertising, as well as editing and writing. The abilities to read and understand complex material, to write and speak precisely, to think clearly, thoroughly and subtly remain in high demand.

All students with an interest in literature are invited to join the English Society. Students of exceptional merit earn membership in Sigma Tau Delta, a national honor society, and may qualify for departmental scholarships.

Major. A major requires a minimum of 27 credit hours in English courses beyond the General Education Requirements and numbered 300 or above. Courses must include either ENGL 406 or 493; one course selected from 408, 410, 420, 430, 450, or 456; one selected from 460, 470, 475; and either 401 or 402.

Minor in Writing. Students who elect a minor in writing must complete a total of at least 15 credit hours in writing or language-related courses. Courses must include ENGL 300 or 301, 491 or 492. Additional courses may be selected from the following: ENGL 321, 390, 423, 424, 431, 441, 442, 443, TTVA 252, COMM 230. Students who take both ENGL 321 and 431 must take 321 first. In some instances, students may apply internships and cooperative education toward fulfillment of requirements for the minor in writing.

Minor in Literary Studies. The English Department affirms the significance of writing by people of color and other minority groups and regularly includes it in literary and writing courses. In addition the Department offers specific topics courses especially focused on this writing and designed to fulfill the U.S. Cultural Diversity Requirement. Courses must include American Ethnic Literature and Black Spiritual Narratives.

Credit by Examination. Credit for ENGL 100 may be earned through the College Level Examination Program general examination in English or the subject area examination in English Composition, or through the Advanced Placement Examination offered by the College Entrance Examination Board. Students with SAT Verbal scores of 670 or above or an ACT score of 28 or above may receive credit for ENGL 100 upon submission of a writing sample judged acceptable by the Department.

Credit for ENGL 200 may be earned through the College Level Examination Program subject examination in Reading and Interpretation of Literature or through the Advanced Placement Examination offered by the College Entrance Examination Board. Students with SAT Verbal scores of 670 or above or an ACT score of 28 or above may receive credit for ENGL 200 upon submission of a writing sample judged acceptable by the Department.

Approval of Schedules. All students declaring a major or a minor in English should make an appointment with the Chair of the Department. Students should bring their cumulative grade reports (from the registrar's office) and their current adviser's files. The Chair will explain the offerings and programs of the Department and give each student a bulletin which explains courses and faculty in more detail than is possible in this catalog.

All students taking a major or minor in English must have their schedules approved by their English advisers at registration. This consultation assures students of places in courses and contributes to orderly progress toward the degree.

Advising. The Chair of the Department will introduce all students to the professors who will be their advisers as long as they remain majors in the Department. It is the student's responsibility to confer regularly with the adviser about course selection, career planning and related matters. It is the adviser's responsibility to help the student make a frank and realistic assessment of academic options and their consequences.

Cooperative Education. When it will clearly enhance their academic education, qualified students may engage in paid work experiences through which they may also earn credit. No more than six credits may be applied toward the minimum major requirements. All projects must receive prior approval from the Department Chair and must be monitored by a member of the English Department faculty. A report from the sponsoring agency is required, as well as a written report by the student. For further information, refer to Cooperative Education, College of Arts and Sciences, page 49.

Topics Courses. Courses in English marked by an asterisk (*) may vary in content and in writers assigned, depending on the instructor and the year given. Such courses may be taken twice for credit provided that the topics are different or that there is no significant overlapping in the reading lists.

100. Exposition and Argument. Cr. 4. An intensive course in the writing of expository and argumentative prose with emphasis upon coherent organization, the logical progression of thought and the effective use of language.

101. English for International Students. 3+1, Cr. 3. A course in English grammar and basic composition skills open only to students whose native language is not English.

200. Literary Studies. Cr. 4. Core readings are based on several major units corresponding to significant periods of literary history. Presented with their historical setting and supplemented by numerous shorter pieces, these readings build on and extend students' awareness of their cultural tradition. The course provides instruction and practice in the writing of critical analyses of texts. Prerequisite: ENGL 100 or 101.

231. Film Aesthetics. Cr. 3. This course considers the possibilities and limitations of aesthetic valuation of film. Films are studied intensively from the viewpoint of narrative technique, image, camera movement, sound, social ideology and historical significance. Aesthetic impact is weighed against ethical issues. Representative films studied are Renoir's Rules of the Game, Ford's The Searchers and Riefenstahl's Triumph of the Will. Offered in alternate years. This course may be used to fulfill the Five Arts/Literature component of General Education Requirements.

Note: ENGL 100 (or 101) and 200 are prerequisites for all literature and language courses numbered 401 or above; ENGL 100 (or 101) is the prerequisite for other writing courses (ENGL 300, 301, 321, 423, 424, 431, 491, 492).

300. Introduction to Professional Writing. Cr. 3. This course offers a detailed study of writing and speaking practices for effective communication in business, industry, the profession, and not-for-profit organizations. It combines analysis and praxis in composing and executing various messages in formats including letters, memos, reports, proposals, and oral presentations. It also emphasizes audience analysis, organizational strategies and motivational appeals, style and language choice, format and appearance. Current issues include communication ethics, intercultural communication, electronic communication technologies in the workplace.

301. Introduction to Creative Writing. Cr. 3. This course examines the process and product of creative writing. Topics will include stages of creative writing from invention and imagination to description and dramatization. Attention will focus on the elements of fiction, poetry, drama, non-fiction and their forms, their differences and the reasons for distinguishing among them, and the ways in which they have contributed to one another as boundaries between them have blurred. Students will practice writing in the various genres. Assignments will also address issues such as the relation of literature to autobiography to their art, and the need to craft concrete metaphors to represent abstract ideas.
321. Intermediate Composition.
Cr. 3. Students examine and practice procedures common to all kinds of academic and professional writing. Particular attention is given to editing, revising, and evaluating prose forms. Not open to students who have taken ENGL 431.

Cr. 3. A study of a significant movement in American literature, such as Transcendentalism, Romanticism, Naturalism, and Realism, or a group of writers related regionally, ethnically, or in some other special way.

390/590. Topics in Literature.*
Cr. 2-3. An open-topic course, which may concern a single writer or group of writers; a literary type or theme (e.g., politics and literature, novel of social criticism, sacred tales, black spiritual narratives); a contemporary art form (e.g., contemporary poetry); or an aspect of modern popular culture (e.g., fiction of the Vietnam War).

401. American Literature I.
Cr. 3. A study of selected works of major American writers (including minority and women writers) from the Colonial period to the Civil War.

402. American Literature II.
Cr. 3. A study of selected works of major American writers (including minority and women writers) from the Civil War to the present day.

405. Masterpieces of World Literature.
Cr. 3. A study of major works of the Occident and Orient from ancient times to the present day.

408/508. Methods of Literary Criticism and Research.
Cr. 3. Designed to give students practical experience in the theories and methods of modern literary scholarship and criticism. The course aims to acquaint students with the presuppositions about literature which underlie critical writing and thus to provide standards for evaluating critical and scholarly works. It also provides intensive training in the analysis of literary texts. Required for English majors.

409/509. Literature of the Medieval Period.
Cr. 3. A survey of medieval English lyric, ballad, narrative, drama, and romance (including Chaucer), with attention to intellectual, religious, and social background materials.

410/510. Shakespeare.
Cr. 3. Close readings of representative plays: histories, comedies, and tragedies.

420/520. Literature of the Sixteenth and Seventeenth Centuries.
Cr. 3. An intensive survey of the poetry, prose, and drama of the English Renaissance, excluding Shakespeare, with attention to the historical and cultural backgrounds of the period. Representative writers may include More, Sidney, Spenser, Jonson, Donne, and Milton.

423. Short Story Writing.
Cr. 3. A workshop in the various techniques of writing short fiction. English majors, as well as other students, may take this course on the S/U basis.

424. Poetry Writing.
Cr. 3. A workshop in the various techniques of writing poetry. English majors, as well as other students may take this course on the S/U basis.

430/530. Literature of the Restoration and Eighteenth Century.
Cr. 3. An intensive survey of English poetry, fiction, non-fiction prose, and drama from 1660-1785, with attention to the historical and cultural background of the period. Representative writers may include Dryden, Swift, Pope, Fielding, Johnson, and Sheridan.

431. Advanced Composition.
Cr. 3. A course for students who have mastered fundamental writing skills and are prepared to study and practice the writing process in a more sophisticated and rigorous fashion. The course considers how to generate and organize ideas, how to adapt writing to various audiences and purposes, and how to revise, edit, and polish writing components of a developing and mature style.

441/541. History of the English Language.
Cr. 3. An introduction to the development of modern English from Indo-European with emphasis upon structure and vocabulary.

442/542. Modern English Grammar.
Cr. 3. An introduction to recent linguistic developments such as structural grammar and transformational generative grammar.

443/543. Introduction to Linguistics.
Cr. 3. A general introduction to the theory and methodology of linguistics. The course includes descriptive and historical linguistics, basic notions of grammatical theory and exploration of some of the relations of linguistics to other branches of knowledge. The presentation of general principles is supplemented by practical problems in linguistic analysis.

450/550. Literature of the Nineteenth Century.
Cr. 3. A survey of British poetry and prose of the Romantic and Victorian eras, with reference to the context of British and European social and political history. Major writers may include Wordsworth, Coleridge, Keats, Hazlitt, Scott, Carlyle, Tennyson, Browning, Arnold, Dickens, Newman, and Hardy.

456/556. The Novel.
Cr. 3. A study of representative English novels of the eighteenth and nineteenth centuries, with discussion of the social background.

460/560. Twentieth Century Drama.
Cr. 3. A study of plays typical of the various phases of the development of British and American drama after 1890, with some attention to related Continental drama.

470/570. Twentieth Century Fiction.
Cr. 3. Readings of representative works of the most important British and American novelists of the twentieth century, with emphasis on various theories of fiction dominant during the period.

475/575. Twentieth Century Poetry.
Cr. 3. Readings in selected modern poets and their forerunners, especially the French Symbolists. The British and American poets included may range from Yeats and T.S. Eliot to Auden, Robert Lowell and other contemporary figures.

478. Literature for Children.
Cr. 3. A survey, by types, of distinguished literature for children, with emphasis on developing analytical and evaluative techniques.Introduction to bibliographical aids, review media, and research. Required of elementary education majors.

479/579. Literature for Adolescents.
Cr. 3. A survey, by types, of distinguished literature suitable for students in secondary schools. Emphasis on the reading of selected books representing the wide range of literature for adolescents, and the development of analytical and evaluative techniques. Introduction to bibliographical aids, review media, and current research in the field.

481. Cooperative Education in English I.
Cr. 0.5-3. Professional work experience which clearly augments the student's classroom education. Written report required. Prerequisites: ENGL 431 and approval of the Chair of the Department.

482-483. Cooperative Education in English II-III.
Cr. 0.5-3. Continuation of ENGL 481. Prerequisite: ENGL 481. May be repeated beyond 483 for additional credit.

489. The Teaching of English.
Cr. 3. (See ED 489) A study of methods of teaching English in secondary schools. Prerequisites: admission to Supervised Teaching. This course may not be counted toward a major or minor in English.

491/591. Seminar in Professional Writing.
Students will reflect critically on the meaning of certain writing tasks in the cultures of working society. They will become more rigorously aware of such topics as the ethics of marketing strategies as applied to writing projects and assignments. They will learn enough to run a subject to write not only exploratory but editorial and opinion pieces about it. Attention also will focus on the techniques, problems, and strategies of grant writing, editing the writing of others, and association publishing. Prerequisite: ENGL 300; 321 or 431 or approval of the Chair of the Department.

492/592. Seminar in Creative Writing.
Cr. 3. Students consider various forms of creative writing (drama, fiction, non-fiction, poetry), but focus their work in a single genre. Requirements include a series of progress papers and a substantial portfolio of creative work. Prerequisite: ENGL 423 or 424 or 431 or approval of the Chair of the Department.

493. Seminar in English.
Cr. 3. Designed for juniors and seniors interested in active participation, the seminar encourages independent thought and research, relies on discussion rather than lectures. Some recent topics: Fiction of the Vietnam War, Austen and Feminism, Enrollment limited to 15 students. Required for English majors.

495. Independent Study in English.
Cr. 3. Designed to provide advanced students an opportunity to do serious research on a topic which is not covered in any regularly scheduled course offered by the English Department. In advance of the semester in which students plan to undertake projects, they must arrange for directors and secure approval from the English Department Committee on Honors and Independent Study.

497. Honors Work in English Literature.
Cr. 3. See Honors Work page 48.

498. Honors Candidacy in English Literature.
Cr. 3. See Honors Work page 48.
Environmental Science

Administrative Committee: Professors Arkkelin (Psychology), Caristi (Mathematics and Computer Science), Janke (Geography and meteorology); Associate Professors Bradley (Chemistry), Geiman (Philosophy); Assistant Professors Al-Jobeh (Chemical Engineering), Eberhardt (Biology), Singleton (Economics).

Students who complete the Environmental Science program will have fulfilled the major field requirements for the Bachelor of Science degree.

Objectives. The Environmental Science Program gives the student the requisite scientific background for adequately assessing environmental systems. Field work extends that knowledge into environmental modelling techniques to give the student an opportunity for directed research and tempering the student's expertise with a modicum of philosophical and social reflection on his or her undertakings. An Environmental Science major should well position the student to enter into graduate work in environmental science or policy or into the professions of environmental management and protection. Science courses are distributed among biology, chemistry, and geography; a modelling course provides techniques for applying knowledge and skills gained in the science courses to environmental problems; philosophy and economics courses help students develop conceptual frameworks in which to link environmental and human concerns. Outside the classroom, Earthtones, a student organization, coordinates campus and community environmental action.

Students interested in pursuing the Environmental Science Program should confer with a member of the Administrative Committee.

Requirements. A minimum of 66 credit hours approved by the Administrative Committee is required. Courses must include BIO 171, 172, 290: Botany, 350, 440 (18 credits); CHEM 121, 122, 221, 222, 230 (20 credits); GEO 104, 490: Biogeography, 490: Environmental Management (10 credits); calculus: one of MATH 122, 131, 151 (4-5 credits); statistics: one of MATH 240, PSY 201, DS 205, CE 202 (3-4 credits); one of BIO 370, GEO 260, PSY 355 (3 credits); Environmental Science 325 and 425 (4 credits); an independent research project in biology, chemistry, or geography; and three credits of an elective from the list below.

Students will undertake an independent research project under the direction of one of the science professors; research results will be presented during the Environmental Science Colloquium.

The History/Philosophy General Education Requirement must be fulfilled with PHIL 270; one of the Social Analysis General Education Requirements must be fulfilled with ECON 210.

The Introductory Courses fulfill the Natural and Behavioral Sciences/Mathematics General Education Requirement.

General Education
PHIL 270 Environmental Philosophy and Ethics .................. 3 Cr.
ECON 210 Environmental Economics and Policy .................. 3 Cr.

REQUIRED COURSES

Introductory Courses
BIO 171 Unity of Life ............................................. 4 Cr.
BIO 172 Diversity of Life ............................................. 4 Cr.
CHEM 121 General Chemistry ............................................. 4 Cr.
CHEM 122 General Chemistry ............................................. 4 Cr.
GEO 104 Geomorphology ............................................. 4 Cr.
Calculus One of the following:
MATH 122 Intuitive Calculus of One or More Variables .......... 4 Cr.
MATH 131 Analytical Geometry and Calculus I .......... 5 Cr.
MATH 151 Calculus I ............................................. 4 Cr.
Total .................................................. 24-25 Cr.

Environmental Issues
One of the following:
BIO 370 Human Environmental Biology .................... 3 Cr.
GEO 260 Environmental Conservation .................... 3 Cr.
PSY 385 Environmental Psychology .................... 3 Cr.
Total .................................................. 3 Cr.

Upper Level Courses
BIO 290 Biological Topics: Botany .............. 3 Cr.
BIO 350 Field Biology: Spring .................... 3 Cr.
BIO 440 Ecology ............................................. 4 Cr.
CHEM 221 Organic Chemistry I .................... 4 Cr.
CHEM 222 Organic Chemistry II .................... 4 Cr.
CHEM 230 Quantitative Analysis .................... 4 Cr.
GEO 490 Topics: Biogeography .................... 3 Cr.
GEO 490 Topics: Environmental Management ........ 3 Cr.
Statistics One of the following:
MATH 240 Statistical Analysis .................... 3-4 Cr.
PSY 201 Statistical Methods .................... 3 Cr.
DS 205 Business Statistics .................... 3 Cr.
CE 202 Statistical Applications in Civil Engineering .... 3 Cr.
Total .................................................. 31-32 Cr.

Capstone Courses
ENVS 325 Simulation and Modeling .................... 3 Cr.
ENVS 425 Colloquium: Communicating Environmental Research .......... 1 Cr.
Independent Research Project One of the following:
BIO 495 Research in Biology .................... 1-2 Cr.
CHEM 495 Special Problems in Chemistry ........ 1-2 Cr.
GEO 495 Independent Study .................... 2-3 Cr.
Total .................................................. 5-7 Cr.

Elective Courses
Select one from the following:
ENGL 390 Topics: Environmental Literature ........ 3 Cr.
GEO 210 Current Themes: Human Impacts ........ 3 Cr.
GEO 230 Air Photo Interpretation and Remote Sensing .... 3 Cr.
GEO 385 Field Study (Environmental) .................... 3 Cr.
GEO 490 Topics: Geographic Interpretation and Remote Sensing .... 3 Cr.
MET 103 Meteorology ............................................. 4 Cr.
MIST 215 Climatology ............................................. 4 Cr.
HIST 390 Topics: American Environmentalism ........ 3 Cr.
CE 151 Construction Surveying .................... 3 Cr.
CE 332 Hydrology ............................................. 3 Cr.
CE 364 Environmental Engineering I ........ 3 Cr.
CE 365 Environmental Engineering II ........ 3 Cr.
CE 466 Environmental Engineering Design ........ 3 Cr.
Total .................................................. 3 Cr.
Total Program Requirement .................... 66-70 Cr.

ENVS 325. Simulation and Modeling.
Cr. 3. (Also offered as Computer Science 325.) An introduction to computer simulation of mathematical models of discrete and continuous phenomena. Some standard simulations are examined, others implemented using a simulation language. Prerequisites: a course in calculus, a course in probability and statistics, and a course in programming.

ENVS 425. Colloquium: Communicating Environmental Research.
Cr. 1. This course consists of student and faculty presentations of environmental science research projects and will include discussion on research methods, communication techniques and technical and grant writing skills.

ENVS 499. Colloquium on Environmental Management.
Cr. 3. Students discuss environmental issues from philosophical, economic and scientific perspectives; learn about research methods from faculty in each of the representative disciplines and are exposed to management techniques through guest speakers from organizations dealing with environmental problems. Prerequisite: junior standing.
Foreign Languages and Literatures

Professors Falkenstein, Peters (Chair); Associate Professors Ames, S. DeMaris, Duvick, Kumpf, Toledo; Assistant Professors Kavanagh, Nordling.

Acquaintance with a foreign language and a foreign culture has a profound effect on the way individuals view their own language and their own heritage. Pursuit of studies in this area raises the sights of individuals from the level of provincialism to the level of broadened human concern and is, therefore, a vital part of students' experience, regardless of their fields of specialization. Students, while thus deepening their backgrounds in the humanities, at the same time acquire a working knowledge of another language, a practical skill valued in many of today's professions.

A major in a foreign language may lead to such careers as foreign trade, airlines management, international banking, foreign news correspondent, publishing, teaching, the ministry, para-legal professions, social work among the non-English speaking, translation, tourism or government service.

Objectives. In the lower division courses, numbered in the 100s, the Department has the following objectives:

Modern Foreign Languages
1. To teach the fundamental skills of reading, writing, aural comprehension and speaking in a foreign language.
2. To provide students with a solid basis for further study of the language, literature and civilization.
3. To enhance students' awareness of language in general: its structures, uses and relationship to the culture of the lands in which the language is spoken.

Classical Languages and Hebrew
1. To read the original text with understanding.
2. To study the ideas, history and culture that are the basis of Western Civilization.

In the upper division courses, numbered 200 to 499, the objectives are to continue the work done in the lower division, to prepare students for graduate study, to teach for or for entering careers which demand use of a foreign language; more specifically:

1. To refine the skills acquired in the lower division courses.
2. To study literature both as individual works of art and as a reflection of the civilization and era from which it sprang.
3. To study a foreign civilization and its development.
4. To offer such specialized work as is necessary for those who plan to teach or those who would use foreign language in their careers.

The Department of Foreign Languages and Literatures cooperates with the Departments of Economics, Geography, History and Political Science in a major in International Economics and Cultural Affairs designed for students considering careers in the fields of international commerce or government service (see page 101 for details) and also participates in the International Service major.

Study Abroad. Through University programs and affiliations, an opportunity to study abroad is afforded students of any of the foreign languages. Foreign language majors and minors are strongly encouraged to study abroad. See pages 17-23 for details.

Placement and Special Credit. Before beginning the study of a foreign language already studied in high school, students are required to take a placement examination administered by this Department.

Students who wish to begin languages they have not studied before must register for course 101 of those languages.

Students who have completed a second year of a foreign language in high school will not be granted credit for level 101 in that language.

Students who are placed directly into level 103 of a language shall receive 4 credit hours for level 102 and 4 credit hours for level 103 by passing course 103 at Valparaiso University.

Students who are placed directly into a 200-level course in a language shall receive 4 credit hours for level 102, 4 credit hours for level 103 and the credit hours for the 200-level course by passing the 200-level course at Valparaiso University.

101. Beginning Chinese I
Cr. 4. Basic elements of modern Chinese (Mandarin), including the four tones, sentence structure and some Chinese characters. May not be taken by students who have taken language study courses in China.

102. Beginning Chinese II
Cr. 4. Continuation of FLC 101. Prerequisite: FLC 101 or equivalent. May not be taken by students who have taken language study courses in China.

203. Intermediate Chinese I
Cr. 4. Development of FLC 101 and 102, focusing on speaking, aural comprehension, reading and writing. Emphasis on drills and discussion of readings. Introduction of simplified characters and cursive script. Continuously increasing use of Chinese in class. Prerequisite: FLC 102 or permission of the instructor.

204. Intermediate Chinese II
Cr. 4. Continuation of FLC 203, emphasizing development of speaking, aural comprehension, reading and writing. Includes readings from a variety of sources including contemporary Chinese short stories, lectures, and newspapers. Class sessions conducted in Chinese as much as possible. Prerequisite: FLC 203 or permission of the instructor.

Classics

Major. Students must choose one of two tracks: the Classical Language and Literature track or the Classical Civilization track.

Classical Language and Literature Track: Requirements for the major are CLC 220 and 311 and one of the following language concentrations:

1. Greek (24 credits); or
2. Latin (16 credits beyond FLL 103); or
3. Classical Languages (16 credits of Greek and 8 credits of Latin beyond FLL 103).

Note: Students planning to pursue a graduate program in Classics should take as many Greek and Latin courses as possible. Sixteen hours of Greek language courses is normally the minimum recommendation for students interested in seminary training; pre-seminary students should consult with the pre-seminary advisor in the Department of Theology.

Classical Civilization Track: Requirements for the major are:

1. Completion of the 101-102 sequence in either Latin or Greek, or completion of 4 credits of work in either language at
requirements are 15 credits of Classical Civilization courses, which must include CLC 200, CLC 220, CLC 311, and CLC 411. Of the remaining 12 elective credits, as many as 6 may be taken in other departments. Approved courses are PHIL 215, and THEO 317 or THEO 321. Other courses may be counted toward the major with prior permission of Classics section head and Department Chair.

Minor. Students must choose one of two tracks: the Language and Literature track or the Classical Civilization track.

Language and Literature Track: Requirements are CLC 311 and one of the following language concentrations:
1. Greek (16 credits) or
2. Latin (8 credits beyond 103).

Classical Civilization Track: Requirements are 15 credits of Classical Civilization courses, which must include CLC 200, CLC 220, and CLC 311.

Teaching Programs. Students who plan to teach Latin in secondary schools with a major or minor in Classics should consult the Chair of the Department and the Education Department for specific details.

Scholarships. Special scholarships for Classics students include The Rev. and Mrs. Arthur L. Reinke and the Rev. and Mrs. Augustus Reinke Memorial Scholarship, the John and Dorothy Holmes Endowed Scholarship, and the Delta Upsilon Chapter of Eta Sigma Phi Scholarships.

Study Abroad Opportunities:
College Year in Athens (available fall only) American School of Classical Studies at Athens (available summer only) Archaeological Field Work (available summer or spring semester) See pages 18 and 23 for details; students considering study abroad should consult with the Department Chair and their academic advisor as early as possible.

Classical Civilization

See Classics for description of Classical Civilization concentration in Classics major and minor.

200. Classical Literary and Artistic Expression. Cr. 3. A study of Greek and Roman literature in translation and art. May be repeated for credit provided there is no duplication of material. No knowledge of Greek or Latin required.

220. Introduction to Classical Archaeology. Cr. 3. A study of classical and historical archaeological sites including sculpture, painting, and architecture, and their relationship to political and cultural history. Field trip to a major museum. No knowledge of Greek or Latin required. This course may be used to fulfill the Fine Arts/Fine Arts Literature component of the General Education requirements.

250. Classical Monuments in Context. Cr. 3. A travel course in which the study of Greek or Roman artistic and literary expression takes place in a classical environment. Study trips will be conducted to Greece, Italy, or Roman Germany. May be repeated for credit if the trips are different. No knowledge of Greek or Latin required. Offered summers only.

251. Classical Mythology. Cr. 3. Survey of Greek and Roman myths and their influence on modern literature and art. No knowledge of Greek or Latin required. This course may be used to fulfill the Fine Arts/Fine Arts Literature component of the General Education Requirement.

290. Special Topics in Classical Civilization. Cr. 3. A study of a particular issue or theme in Classical Civilization. Topics will be selected on the basis of student and faculty interest. Possible topics include The Roman World in Film, and Cultural Diversity in the Classical World. May be repeated for credit provided there is no duplication of material. No knowledge of Greek or Latin required.

311. Greek and Roman Civilization. Cr. 3. (Also offered as HIST 311.) A study of the Greek and Roman political, social, and intellectual development from the Mycenaean period to 325 A.D. No knowledge of Greek or Latin required. Prerequisite: sophomore standing or consent of the Chair of the Department. This course may be used to fulfill the Philosophical and Historical Studies component of the General Education Requirements.

321. Archaeological Practicum. Cr. 1-3. Student participation in an approved excavation of a classical site. Participants must receive some on-site instruction in excavation goals and methods. Two weeks of work will normally earn 1 credit. Formal report required. Prerequisites: FLGK 102 or FLL 102, CLC 220, CLC 311 (HIST 311), and approval of Department Chair and excavation director.

411. Studies in Classical Epic or Classical Drama. Cr. 3. Close reading of selected epics by Homer, Apollonius, and Vergil, or of selected plays by Aeschylus, Sophocles, Euripides, Aristophanes, Plautus, and Terence. Discussion of historical context, poetic technique, and the values and concerns that the works reflect. May be repeated for credit provided there is no duplication of material. No knowledge of Greek or Latin required. Prerequisite: CLC 311 or instructor’s approval.

481. Cooperative Education in Classical Civilization I. Cr. 0.5-3. Work experience with a cooperative employer. Prerequisites: 20 credits of work in CLC, including CLC 220 and CLC 311, and approval of Department Chair. S/U grade.

482-483. Cooperative Education in Classical Civilization II-III. Cr. 0.5-3. Continuation of CLC 481. Prerequisites: CLC 481 and approval of Department Chair. S/U grade. May be repeated beyond 483 for additional credit.

495. Supervised Reading and Research in Classical Civilization. Cr. 1-4. Intended for students capable of doing independent study in Classical Civilization. Scholarly paper required. Prerequisite: Consent of Department Chair.


French

Major. A minimum of 27 credit hours in French beyond FLF 103 constitutes a major. Courses must include FLF 204, 221, 222, 231, 232, and 493.

Minor. A minimum of 14 credit hours beyond FLF 103 constitutes a minor. Courses must include FLF 204 and one course in either French civilization or literature.

Teaching Programs. Students who plan to teach French in secondary schools with a major or minor in French should consult the Chair of the Department and the Education Department for specific requirements.

The Roger and Hazel Guillaumant Award. See page 27 for details.

Study Abroad Opportunities: Sorbonne Paris Program (available full year or spring semester) Paris Internship Program (available fall or spring semester) See page 21 for details; students considering study abroad should consult with the Department Chair and their academic advisor as early as possible.

101. First Semester French. Cr. 4. A course designed to give the student the essentials of French. Credit may not be counted for graduation by a student who has completed a second year French course in high school.

102. Second Semester French. Cr. 4. A continuation of FLF 101. Prerequisite: FLF 101 or equivalent.

103. Intermediate French. Cr. 4. A course designed to review and refine knowledge of basic grammar, to improve aural comprehension and verbal skills through classroom and laboratory work and to introduce reading and composition. Prerequisite: FLF 102 or equivalent.

204. French Composition and Conversation I. Cr. 4. Practice in speaking, understanding, reading and writing everyday French. Use of practical vocabulary and common idioms. Prerequisite: FLF 103 or equivalent. May be repeated for credit at the Paris Centers or similarly accredited programs.

205. French Composition and Conversation II. Cr. 4. A continuation of FLF 204 with work of increased difficulty. Prerequisite: FLF 204. May be repeated for credit at the Paris Centers or similarly accredited programs.

221. French Literature from the Middle Ages to 1789. Cr. 3. A survey of French literary history from the Middle Ages to the end of the 18th century with reading of representative works. Prerequisite: FLF 204.

222. French Literature from 1800 to the Present. Cr. 3. A survey of French literary history of the 19th and 20th centuries with reading of representative works. Prerequisite: FLF 204.

231. French Civilization to 1870. Cr. 3. A historical survey of the French cultural heritage in the fields of history, sociology and the fine arts to the beginning of the Third Republic. Prerequisite: FLF 204.

232. French Civilization from 1870 to the Present. Cr. 3. A survey of the Franco-Prussian War, the two world wars, decolonization and participation in the European Community and their impact on the politics, social development, economy and thought of France today. Prerequisite: FLF 204.
240. French Phonetics.
Cr. 3. A study of the principles of French phonetics with special emphasis on the difficulties encountered by American students. Much practical training in the laboratory. Prerequisite: FLF 103 or equivalent.

250. Topics in French Literature and the Fine Arts.
Cr. 3. Study of selected works of French literature in English translation and of their correlates in the visual arts and/or music. No knowledge of French required. May not be counted toward a major or minor in French.

Cr. 4. French newspapers, magazines, radio, television and films are used as a basis to build more advanced language skills and to familiarize the student with modern-day France. Prerequisite: FLF 204.

307. Professional French.
Cr. 2-3. A study of the French language as it is used in the international business world, including writing of business letters and general commercial terminology. Prerequisite: FLF 204.

481. Cooperative Education in French I.
Cr. 0.5-3. Work experience with a cooperating employer. Written report required. Prerequisites: 12 credits beyond FLGR 103 and approval of the Chair of the Department. SU grade.

482-483. Cooperative Education in French II-III.
Cr. 0.5-3. Continuation of FLGR 481. Prerequisites: FLGR 481 and approval of the Chair of the Department. SU grade. May be repeated beyond 483 for additional credit.

489. The Teaching of Foreign Languages.
Cr. 3. (See FLF 489 and ED 489.) Prerequisite: admission to Supervised Teaching.

490. Seminar in French Literature or Civilization.
Cr. 4. A study of selected topics in literature or civilization. May be repeated provided there is no duplication of material. Prerequisites: FLF 221 and 222 or FLF 231 and 232 respectively.

493. Senior French Seminar.
Cr. 3. A senior-level capstone course which integrates knowledge and skills from previous French courses. Language skills (speaking, listening, writing, reading) are refined as depth and nuance are added to the understanding of French history, literature, culture and contemporary events. Prerequisites: senior standing and consent of the Chair of the Department.

495. Supervised Reading and Research in French.
Cr. 1-4. Intended for students capable of doing independent study in French language, civilization and literature. Prerequisite: consent of the Chair of the Department.

497. Honors Work in French.
Cr. 3. See Honors Work, page 48.

498. Honors Candidacy in French.
Cr. 3. See Honors Work, page 48.

German

Major. A minimum of 27 credit hours in German beyond FLGR 103 constitutes a major. Courses must include FLGR 204, 221, 222, 231, 232, and 493.

Minor. A minimum of 14 credit hours beyond FLGR 103 constitutes a minor. Courses must include FLGR 204 and one course in either German civilization or literature.

Teaching Programs. Students who plan to teach German in secondary schools with a major or minor in German should consult the Chair of the Department and the Education Chair for specific requirements.

Study Abroad Opportunities:
Reutlingen Program (available fall or spring semester)
Tübingen Program (available full year only)
See page 22 for details. Students considering study abroad should consult with the Department Chair and their academic advisor as early as possible.

The Walther M. Miller Memorial Prize. See page 28 for details. Also available is a Reutlingen Semester Scholarship.

101. First Semester German.
Cr. 4. A course designed to give the student the essentials of German. Credit may not be counted for graduation by a student who has completed a second year German course in high school.

102. Second Semester German.
Cr. 4. A continuation of FLGR 101. Prerequisite: FLGR 101 or equivalent.

103. Intermediate German.
Cr. 4. Reading, writing and discussion in German on the intermediate level; review of German grammar. Upon demand a special reading section will be offered. Prerequisite: FLGR 102 or equivalent.

204. German Composition and Conversation I.
Cr. 4. Practice in speaking (general conversation beyond survival needs), understanding (standard German spoken at a normal rate), reading (non-specialized texts), and writing (paragraphs). Prerequisite: FLGR 103 or equivalent. May be repeated for credit at Reutlingen Center.

205. German Composition and Conversation II.
Cr. 4. A continuation of FLGR 204, with work of increased difficulty. Prerequisite: FLGR 204.

221. Selected Readings in German Literature to 1800.
Cr. 3. Representative examples from different genres of German literature through the end of the 18th century. Prerequisite: FLGR 204.

222. Selected Readings in German Literature since 1800.
Cr. 3. Representative examples from different genres of German literature from the age of Goethe to the present. Prerequisite: FLGR 204.

231. German Civilization to 1800.
Cr. 3. A historical and interdisciplinary survey of German culture to the end of the 18th century. Prerequisite: FLGR 204.

232. German Civilization since 1800.
Cr. 3. A historical and interdisciplinary survey of German culture in the 19th and 20th centuries. Prerequisite: FLGR 204.

250. Topics in German Literature and the Fine Arts.
Cr. 3. Study of selected works of German literature in English translation and of their correlates in the visual arts and/or music. No knowledge of German required. May not be counted toward a major or minor in German.

260. History of the German Film.
Cr. 3. A survey of the German film from the 1920's to the present. No knowledge of German required. May not be counted toward a major or minor in German. This course may be used to fulfill the Fine Arts/Fine Arts Literature requirement.

306. Contemporary German Language in the Mass Media.
Cr. 4. The contemporary German language as used in radio broadcasts, newspapers, magazines and other sources from German-speaking countries. Prerequisite: FLGR 204.

307. Professional German.
Cr. 3. A study of the German language primarily for participants in the Program in International Economics and Cultural Affairs. The course is adjusted to the career needs of the individual class. Prerequisite: FLGR 204.

341. History of the German Language.
Cr. 3. A historical study of the development of the German language. Prerequisite: FLGR 204.

348. Cooperative Education in German I.
Cr. 0.5-3. Work experience with a cooperating employer. Written report required. Prerequisites: 12 credits beyond FLGR 103 and approval of the Chair of the Department. SU grade.

482-483. Cooperative Education in German II-III.
Cr. 0.5-3. Continuation of FLGR 481. Prerequisites: FLGR 481 and approval of the Chair of the Department. SU grade. May be repeated beyond 483 for additional credit.

489. The Teaching of Foreign Languages.
Cr. 3. (See FLF 489 and ED 489.) Prerequisite: admission to Supervised Teaching.

490. Seminar in German Literature or Civilization.
Cr. 4. A study of selected topics in literature or civilization. May be repeated provided there is no duplication of material. Prerequisites: FLGR 221 and 222 or FLGR 231 and 232 respectively, or instructor's permission.

493. Senior German Seminar.
Cr. 3. A senior-level capstone course which integrates knowledge and skills from previous German courses. Language skills (speaking, listening, writing, reading) are refined as depth and nuance are added to the understanding of German history, literature, culture and contemporary events. Prerequisites: senior standing and consent of the Chair of the Department.

495. Supervised Reading and Research in German.
Cr. 1-4. Intended for students capable of doing independent study in German language, civilization and literature. Research paper required. Prerequisite: consent of the Chair of the Department.

497. Honors Work in German.
Cr. 3. See Honors Work, page 48.

498. Honors Candidacy in German.
Cr. 3. See Honors Work, page 48.

Greek

See Classics for description of Greek concentration in Classics major and minor.

101. First Semester Greek.
Cr. 4. A course designed to give the student the essentials needed to read ancient Greek and to provide a brief introduction to Greek literature and culture.

102. Second Semester Greek.
Cr. 4. A continuation of FLGR 101 with readings from Classical and/or New Testament authors. Prerequisite: FLGR 101 or equivalent.
495. Supervised Reading and Research in Hebrew.
Cr. 1-4. Intended for students capable of doing independent study in Hebrew language and literature. Research paper required. Prerequisite: consent of the Chair of the Department.

491. Cooperative Education in Japanese I.
Cr. 0.5-3. Work experience with a cooperating employer. Written report required. Prerequisites: 12 credits beyond FLJ 203 and approval of the Chair of the Department. S/U grade.

482-483. Cooperative Education in Japanese II-III.
Cr. 0.5-3. Continuation of FLJ 481. Prerequisites: FLJ 481 and approval of the Chair of the Department. S/U grade. May be repeated beyond 483 for additional credit.

485. Supervised Reading and Research in Japanese.
Cr. 1-4. Intended for students capable of doing independent study in Japanese language, civilization, and literature. Research paper required. Prerequisite: consent of the Chair of the Department.

410. Latin Prose.
Cr. 2-4. A study of a major author, genre, or period, or of prose composition. This course may be repeated provided there is no duplication of material. Prerequisite: FLJ 103 or equivalent.

427. The Teaching of Foreign Languages.
Cr. 3. (See FLF 489 and ED 489) Prerequisite: admission to Supervised Teaching.

411. Latin Poetry.
Cr. 2-4. A course designed to improve communication and comprehension skills in Latin; review and refine knowledge of basic grammar, broaden vocabulary and increase familiarity with Latin culture. Prerequisite: consent of the Chair of the Department.

487. Honors Work in Latin.
Cr. 3. See Honors Work, page 48.

417. Honors Candidacy in Latin.
Cr. 3. See Honors Work, page 48.

500. Foreign Languages and Literatures Minor.

501. Foreign Languages and Literatures Major.

416. Latin major.
Cr. 3. A minimum of 27 credit hours beyond FLS 103 constitutes a major. Courses must include FLS 204, 220, 230 or 231, 321 or 322, and 493. Minor. A minimum of 14 credit hours above FLS 103 constitutes a minor. Courses must include FLS 204 and one course in either civilization or literature.

416. Teaching Programs.
Students who plan to teach Latin in secondary schools should consult the Chair of the Department and the Education Department for specific requirements.

101. First Semester Latin.
Cr. 4. A course designed to give the student the essentials of Latin and to provide a brief introduction to Roman literature and culture. Credit may not be counted for graduation by a student who has completed a second-year Latin course in high school.

102. Second Semester Latin.
Cr. 4. A continuation of FLL 101, followed by easy selections from Latin prose. Prerequisite: FLL 101 or equivalent.

251. Introduction to Japanese Literature.
Cr. 3. Readings of representative works of Japanese literature in English. No knowledge of Japanese required.

305. Advanced Japanese I.
Cr. 4. Continuation of FLJ 204. Introduction of extended prose readings. Simple conversation and composition in everyday Japanese. Prerequisite: FLJ 204 or equivalent.

306. Advanced Japanese II.
Cr. 4. Continuation of FLJ 305. Emphasis on vocabulary. Prerequisite: FLJ 305 or equivalent.

220. Selected Readings in Hebraic Literature.
Cr. 2-4. Readings for advanced students from the Old Testament and rabbinic literature. Prerequisite: FLJ 203 or consent of the Chair of the Department.

320. Foreign Languages and Literatures Minor.

321. Foreign Languages and Literatures Major.

497. Honors Work in Greek.
Cr. 3. See Honors Work, page 48.

498. Honors Candidacy in Greek.
Cr. 3. See Honors Work, page 48.

101. Beginning Japanese I.
Cr. 4. An introduction to the basic grammar of Japanese.

102. Beginning Japanese II.
Cr. 4. A continuation of FLJ 101. Prerequisite: FLJ 101 or equivalent.

203. Intermediate Japanese I.
Cr. 4. Reading, writing, and discussion in Japanese on the intermediate level, with a review of Japanese grammar. Prerequisite: FLJ 102 or equivalent.

204. Intermediate Japanese II.
Cr. 4. A continuation of FLJ 203. Prerequisite: FLJ 203 or equivalent.

205. Topics in Japanese Language and the Fine Arts.
Cr. 3. Study of selected works of Japanese literature in English translation and of their correlates in the visual arts and/or music. No knowledge of Japanese required.

206. Supervised Reading and Research in Greek.
Cr. 2-4. A minimum of 16 credit hours in Greek constitutes a minor.

Cr. 4. Reading and analysis of selections from classical and/or biblical authors with a review of grammatical forms and syntax; parallel study of pertinent aspects of Greek civilization. Prerequisite: FLJGK 102 or equivalent.

320. Intermediate Greek.
Cr. 2-4. Selected readings from the New Testament, the Septuagint and the Apostolic Fathers with a study of post-classical philology including an introduction to manuscript traditions and textual criticism. Prerequisite: FLJGK 203 or equivalent.

410. Greek Poetry.
Cr. 2-4. A study of a major poet, genre, or period. This course may be repeated provided there is no duplication of material. Prerequisite: FLJGK 203 or equivalent.

411. Greek Prose.
Cr. 2-4. A study of a major author, genre, or period, or of prose composition. This course may be repeated provided there is no duplication of material. Prerequisite: FLJGK 203 or equivalent.

497. Honors Work in Greek.
Cr. 3. See Honors Work, page 48.

498. Honors Candidacy in Greek.
Cr. 3. See Honors Work, page 48.

Hebrew

Minor. A minimum of 16 credit hours in Hebrew constitutes a minor.

101. First Semester Hebrew.
Cr. 4. Elements of Hebrew grammar stressing oral and reading ability. Credit may not be counted for graduation by a student who has taken two years of high school Hebrew.

102. Second Semester Hebrew.
Cr. 4. A continuation of FLH 101, with reading of simpler prose sections of the Old Testament. Prerequisite: FLH 101 or equivalent.

Cr. 4. Selected reading of Old Testament prose and poetry, with attention to increased vocabulary and linguistic structure. Prerequisite: FLH 102 or equivalent.

220. Selected Readings in Hebraic Literature.
Cr. 2-4. Readings for advanced students from the Old Testament and rabbinic literature. Prerequisite: FLH 203 or consent of the Chair of the Department.

491. Cooperative Education in Japanese I.
Cr. 0.5-3. Work experience with a cooperating employer. Written report required. Prerequisites: 12 credits beyond FLJ 203 and approval of the Chair of the Department. S/U grade.
204. Spanish Composition and Conversation.
   Cr. 4. Practice in speaking, understanding, reading and writing everyday Spanish. Increased understanding of the Spanish world through reading and discussion. Prerequisite: FLS 103 or equivalent.

220. Selected Readings in Hispanic Literature.
   Cr. 4. The reading and discussion of works of Hispanic literature representative of various literary genres, with emphasis on the techniques of literary analysis. Prerequisite: FLS 204.

230. Spanish Civilization.
   Cr. 4. A course intended to further the student's knowledge of the varied elements of Spanish history and culture. Lectures and individual oral participation in Spanish. Prerequisite: FLS 204.

231. Spanish-American Civilization.
   Cr. 4. A course intended to further the student's knowledge of the varied elements of Spanish-American history and culture. Lectures and individual participation in Spanish. Prerequisite: FLS 204.

250. Topics in Hispanic Literature and the Fine Arts.
   Cr. 3. Study of selected works of Hispanic literature in English translation and of their correlates in the visual arts and/or music. No knowledge of Spanish required. May not be counted toward a major or minor in Spanish. The topic, Spanish America in Literature and the Arts, may be used to fulfill the Fine Arts/Fine Arts Literature and the Global Cultures and Perspectives component of the General Education Requirements.

306. Contemporary Hispanic Society through Communications.
   Cr. 4. Latin American and Spanish newspapers, magazines, radio, television, and films are used to build more advanced language skills and to familiarize the student with the modern-day Hispanic world. Prerequisite: FLS 204.

   Cr. 3. A study of the Spanish language as it is used in the international business world, including writing of business letters and general commercial terminology. Prerequisite: FLS 204.

321. Spanish Literature.
   Cr. 3. A study of representative works of the literature of Spain from the Middle Ages to the present. Prerequisite: FLS 220.

322. Spanish American Literature.
   Cr. 3. A study of representative works of the literature of Spanish America from the Encounter to the present. Prerequisite: FLS 220.

341. The Spanish Language.
   Cr. 3. An introduction to the historical development of the Spanish language through the study of linguistics, phonetics and philology. Prerequisite: FLS 204.

481. Cooperative Education in Spanish I.
   Cr. 0.5-3. Work experience with a cooperating employer. Written report required. Prerequisites: 12 credits beyond FLS 102 and approval of the Chair of the Department. S/U grade.

482-483. Cooperative Education in Spanish II-III.
   Cr. 0.5-3. Continuation of FLS 481. Prerequisites: FLS 481 and approval of the Chair of the Department. S/U grade. May be repeated beyond 483 for additional credit.

489. The Teaching of Foreign Languages.
   Cr. 3. (See FLP 489 and ED 489) Prerequisite: admission to Supervised Teaching.

490. Seminar in Hispanic Literature or Civilization.
   Cr. 3. The examination of selected themes, movements or authors in Spanish and/or Spanish-American literature or civilization. This course may be repeated provided there is no duplication of material. Prerequisite: FLS 220.

493. Senior Spanish Seminar.
   Cr. 3. A senior-level capstone course which integrates knowledge and skills from previous Spanish courses. Language skills (speaking, listening, writing, reading) are refined as depth and nuance are added to the understanding of Hispanic history, literature, culture and contemporary events. Prerequisites: FLS 220, senior standing and consent of the Chair of the Department.

495. Supervised Reading and Research in Spanish.
   Cr. 1-4. Intended for students capable of doing independent study in Hispanic language, civilization or literature. Research paper required. Prerequisite: consent of the Chair of the Department.

497. Honors Work in Spanish.
   Cr. 3. See Honors Work, page 48.

498. Honors Candidacy in Spanish.
   Cr. 3. See Honors Work, page 48.

Geography and Meteorology

Professor Janke, (Chair); Assistant Professors Kilpinen, Sando, Wolf; Instructor Stevens.

Geography

Geography is a diverse subject which provides students with a strong, practical liberal arts education and offers a wide variety of employment opportunities. The diversity of the discipline stems from its fundamental concern with how humans as individuals and in groups interact with the physical environment.

The Department's two major objectives are:

1. To provide students with knowledge of the physical environment and human use of that environment.
2. To equip students with marketable skills for employment positions related to the discipline or to prepare them for graduate programs leading toward advanced degrees.

While graduate training usually enlarges a student's opportunities, employment may be found upon graduation with a baccalaureate degree and a geography major. The following are some of the fields of employment for geography majors: cartography, demography, climatology, industrial location planning, land use planning, soil conservation, transportation planning, teaching of geography.

Student interest in geography outside the classroom is encouraged through the Geographical Society, which organizes social activities as well as cultural programs. In addition, those who distinguish themselves by high scholarship may be elected to membership in Gamma Theta Upsilon, the international geographic honor society. The Alpha Xi Chapter of Gamma Theta Upsilon was installed at Valparaiso University in 1950.

Valparaiso University, with over 125,000 maps, is the only map repository of the Army Map Service and the United States Geological Survey in Northwest Indiana. Annually thousands of national, regional and topographic maps of all continents are received.

Major. A minimum of 30 credit hours in geography constitutes a major. Courses must include GEO 101, 102, 104, 201, at least one course from the 310-318 series, one course numbered 320 or above, and MET 103.

Students who are contemplating professional or graduate work in geography should take at least 35 credit hours in the Department. For this professional major, students are required to take GEO 101, 102, 104, 210, 220, at least four of the following systematic or technical courses: GEO 230, 320, 321, 330, 360, 361, 385, 466, 490, and 495, and MET 103.

Within the geography major, students may focus their studies further by selecting one of the following concentrations:

Environmental Management or Contemporary Human Geography. The Environmental Management concentration unites traditional physical geography with the principles of sustainable development, conservation, and ecology. The Contemporary Human Geography concentration focuses on timely, human-related topics at both the metropolitan and global scales, especially those in urban, economic, and political geography. In addition to the specified geography courses for these concentrations, the Department offers a career course cluster in the application of contemporary research tools and methods. This distinct course cluster offers undergraduate students excellent opportunities to develop their professional skills in GIS-remote sensing-cartography. The new Kallay Laboratory was designed to facilitate research and teaching in this area of computerized geographic analysis.

Minor. A minimum of 17 credit hours in geography constitutes a minor. GEO 101, 102, and 104 and MET 103 must be included plus one more geography course.

Meteorology

The meteorology course of study at Valparaiso University is a dual-track program leading to either a Bachelor of Science degree in Meteorology or a Bachelor of Arts degree in Broadcast Meteorology. Requirements for the latter option, designed...
the field itself.

The purpose of this association is to involve students at Valparaiso University in activities as parts of a system. Prerequisite: junior or senior standing.

Additional Indiana University course offerings open to Valparaiso University students majoring in geology are G-350, G-410 and G-413. See the IU catalog.

Degree. Completion of the degree requirements of the College of Arts and Sciences with a major in Geography leads to the Bachelor of Arts degree. Completion of the degree requirements of the College of Arts and Sciences with a major in Geology or Meteorology leads to the Bachelor of Science degree.

Approval of Schedules. All students taking a major or minor in geography or the VIGGA major in geography, and all students planning to teach geography must have their schedules approved by the Chair of the Department at the beginning of each semester.

2. These courses are treated as part of the student's normal load at the home institution and tuition and fees are levied accordingly.

3. The total number of credit hours to be taken determined by the student's home institution.

4. Students who wish to take courses at the host institution should obtain the recommendation of the Chair of the Geography Department (VU).

5. Gratuline shall be recorded at the student home institution.

6. A C or 2.00 average must be achieved on VIGGA courses to qualify the student to register for courses at the host institution in the following semester.

Association students at Valparaiso University are expected to complete satisfactorily the following curriculum from course offering at Valparaiso University and Association offerings at Indiana University Northwest in order to complete the major in geography. Degrees are awarded by the home institution.

MET 103 Meteorology (VU) 4 Cr.
GEO 104 Geomorphology (VU) 4 Cr.
G-104 Evolution of the Earth (IUN) 3 Cr.
G-221 Introductory Mineralogy (IUN) 4 Cr.
G-322 Introductory Petrology (IUN) 3 Cr.
G-323 Structural Geology (IUN) 3 Cr.
G-334 Principles of Sedimentation and Stratigraphy (IUN) 3 Cr.
G-406 Introduction to Geochromistry (IUN) 3 Cr.
G-411 Principles of Invertebrate Paleontology (IUN) 3 Cr.
G-420 Regional Geology Field Trip (IUN) 1-3 Cr.
G-490 Undergraduate Seminar (IUN) 1-2 Cr.

GEOGRAPHY

101. World Human Geography. Cr. 3. A topical introduction to the many themes and subfields of human geography, especially population, economic, cultural, urban, and political geography. Examples highlighting these themes draw from relevant contemporary events in both the industrialized and developing worlds. This course may be used to fulfill a part of the Social Analysis component of the General Education Requirement.

102. Geography of the Non-Industrialized World. Cr. 3. A regional survey of the so-called "Third World." The emphasis is on cultivation of a cosmopolitan sensitivity to and respect for cultures other than our own. This course may be used to fulfill a part of the Social Analysis component and the Global Cultures and Perspectives component of the General Education Requirements.

104. Geomorphology. 2+4, Cr. 4. The scientific analysis of natural processes and human impacts affecting the development of landscapes on the earth and other planets. Emphasis is on the interrelationships of geologic, climatic, hydrologic and biological cycles in creating and reshaping landforms. Field trips. This course may be used to fulfill four credit hours of the Natural Science component of the General Education Requirements. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement exam.

174. North American Indian. Cr. 3. Regional treatment of the past and current conditions of North American Indian land use and settlement from the Columbian to the Reservation periods. Special attention is given to the regional analysis of native cultural areas and the impact of federal policy on contemporary social issues. This course may be used to fulfill the Non-Western/Third World component of the General Education Requirements.

201. Economic Geography. Cr. 3. An analysis of the location of economic activities as parts of a system. Prerequisite: sophomore standing or above. This course may be used to fulfill a part of the Social Analysis component of the General Education Requirements.

210. Cultural Themes in Geography. Cr. 2-3. This course is designed to examine current geographic topics. These may include American ethnic settlement patterns and communities, cultural ecology, national parks, geographic techniques, the American Indian on film, landscape in literature, and problems associated with the physical environment. May be repeated when the topic is different. The three-credit course extends throughout the semester, the two-credit course for seven weeks.

220. Cartography. 2+2, Cr. 3. An introduction to cartographic techniques and the compilation and construction of maps. Prerequisite: sophomore standing or above.

230. Air Photo Interpretation and Remote Sensing. 2+2, Cr. 3. An introduction to aerial photographs and data from remote sensors including their use for land use planning. Prerequisite: Geography 104 or consent of the instructor. May be of interest to students in biology, political science and civil engineering.

260. Environmental Conservation. Cr. 3. A study of American and International resource problems and environmental issues; the institutions and attitudes involved and solutions for correcting them.

Note: In each of the courses 310-315 below, a geographic interpretation of the physical, social, political, industrial and commercial processes and patterns of a particular region is given. Prerequisite for each of these is junior standing or the consent of the Chair of the Department.

310. Regional Geography of the United States and Canada. Cr. 3.

311. Regional Geography of Latin America. Cr. 3. May be used to fulfill the Global Cultures and Perspectives component of the General Education Requirements.

312. Regional Geography of Europe. Cr. 3. Recommended for students planning to participate in the Cambridge, Paris or Reutlingen Overseas Study Program.

313. Regional Geography of Africa. Cr. 3. May be used to fulfill the Global Cultures and Perspectives component of the General Education Requirements.

314. Regional Geography of Asia. Cr. 3. May be used to fulfill the Global Cultures and Perspectives component of the General Education Requirements.

318. Field Study in European Geography. Cr. 3. Overseas Study Program only.

320. Urban Geography. Cr. 3. A course treating urban settlements at distinct geographic units. Topics covered include the history of urban settlement, economic classification of cities and patterns of urban land use. Field trip. Prerequisite: junior or senior standing.
321. Urban and Regional Planning.
Cr. 3. A course treating the nature, purposes and objectives of modern community planning for the promotion of social and economic well-being. Field trip. Prerequisite: junior or senior standing.

360. Statistical Analysis in Geography.
Cr. 3. A course designed to teach the techniques of data collection and quantitative analysis. Prerequisite: junior or senior standing.

361. Research Design.
Cr. 3. A course in the methods of research. Each time the course is offered, a different topic is selected for examination. Normally topics deal with current problems of Northwestern Indiana. The results of the class research frequently contribute to the solution of the problem studied. Prerequisite: junior or senior major or permission of the instructor.

385/585. Field Study.
0-4, Cr. 2-3. A course designed to develop methods and techniques of geographic field work. May include a week of intensive work at a field site at a time when University is not in session, possibly in late summer. Additional fees may be charged to cover expenses. Prerequisite: consent of the Department Chair.

465/566. Profession of Geography.
Cr. 3. Readings, papers and discussion on the development of geographic thought especially in the nineteenth and twentieth centuries; on basic concepts of the field; on the place of geography within thought and value systems, and on the contributions of major geographers, past and present, to the discipline and to the intellectual world at large. Prerequisite: junior or senior standing.

470/570. Political Geography.
Cr. 3. An investigation of the relations among political activities and organizations and the geographic conditions within which they develop. Political power is discussed in terms of spatial, human, cultural and ethnic geography. May be of interest to political science majors.

474/574. Historical Geography of the United States.
Cr. 3. A regional treatment of the exploration, colonization, territorial expansion, migration, transportation, settlement and economic development of our country in relation to the physical environment. Course is primarily designed for students majoring in one of the social sciences. Prerequisite: junior or senior standing. May be of particular interest to History majors.

486. Internship in Geography.
Cr. 1-6. Students gain experience by work in public or private agencies, such as planning firms, national parks and map companies. Prerequisites: junior or senior geography major and application for an internship in writing to the Chair of the Department.

480/580. Selected Topics in Geography.
Cr. 2-3. Advanced studies in geography. Such topics as soilform analysis, human environmental impact, biogeography, geographic information systems, and international ethnic conflicts are considered. May be repeated when the topic is different. Prerequisite: junior or senior standing.

495. Independent Study.
Cr. 2-3. Individual research readings on a topic in geography agreed upon by a student and a faculty member of his/her choice from the Department. Prerequisites: junior or senior standing and consent of the Chair of the Department.

497. Honors Work in Geography.
Cr. 3. See Honors Work, page 48.

498. Honors Candidacy in Geography.
Cr. 3. See Honors Work, page 48.

METEOROLOGY

103. Meteorology.
2+4, Cr. 4. An introductory course designed to give the student a broad view of the principles of earth and atmospheric science, emphasizing meteorology. Essential topics deal with social environmental issues such as carbon dioxide and climate change, ozone layer and acid precipitation. This course may be used to fulfill four credit hours of the Natural Science component of the General Education Requirements. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

215. Climatology.
2-2, Cr. 3. A study of the scope and controls of climate and an investigation of the global, regional and local scales. Included are climate classification, climate models and climate change. Prerequisite: MET 103 or consent of the instructor.

216. Introduction to Meteorological Observation and Analysis.
Cr. 3. Introduces the student to upper-air, surface and radar observation codes; elementary techniques of surface and constant pressure map analysis; case studies of various examples. Introduction to atmospheric observing systems, emphasizing those being phased in by the National Weather Service, including conventional and Doppler radar, satellite interpretation, wind profiler systems, ASOS, and McIDAS. Prerequisite: MET 103 or consent of instructor.

379/579. Atmospheric Thermodynamics.
Cr. 3. Introduction to the atmospheric system, including basic characteristics and variables; basic radiation thermodynamics; vertical temperature structure; stability concepts and evaluation; physics of clouds and precipitation processes. Prerequisites: MATH 131 or 151 and MET 103.

382/582. Atmospheric Dynamics I.
3+2, Cr. 4. A general survey of the fundamental forces and laws that govern atmospheric processes, particularly those motions associated with weather and climate. Emphasis are on the applications of the basic equations of motion, atmospheric thermodynamics, gradient and geostrophic flow, and the general circulation. Prerequisite: MATH 253 or concurrent registration and MET 216.

383/583. Atmospheric Dynamics II.
3+2, Cr. 4. Second semester dynamics course emphasizing quasi-geostrophic dynamics; wave motions, barotropic and baroclinic instabilities; cyclones, air masses, fronts and frontogenesis, various development theories; cyclone climatology; jets, streaks, and secondary thermal circulations. Laboratory case studies and exercises. Prerequisite: MET 382.

385/585. Field Study in Meteorology.
0+4, Cr. 2-3. A course emphasizing methods and techniques of meteorological field work and training. Topics include work at the National Weather Service Training Center/Severe Storms Forecast Center and a field course on severe storm prediction, spotting and interception. May include field trips at a time when the University is not in session. Additional fees may be charged to cover expenses. Prerequisites: junior or senior meteorology major and consent of the instructor.

400/580. Synoptic Scale Forecasting and Analysis.
3+2, Cr. 4. Historic perspective of the extratropical cyclone; air masses and frontal systems; formation and growth of extratropical cyclones; distribution of cyclones and cyclone tracks; basic satellite interpretation; operational forecast models; forecasting rules of thumb; selected case studies; forecast problems, including space and time considerations. Students prepare and present forecasts and answer public inquiries via a weatherphone service. Prerequisites: MET 216 and 382 or concurrent registration.

481/581. Mesoscale Forecasting and Analysis.
3+2, Cr. 4. Introduction to mesoscale meteorology and analysis, classification and forecasting challenges; analysis techniques; mechanically/thermally driven circulations, including land-see breezes and lake effect snow; downslope flows; synoptic setting for severe weather; atmospheric stability; analysis and forecast procedures; convection theory; thunderstorm models, isolated convective systems, organized convective systems and tornades; atmospheric discontinuities; dyelines, outflow boundaries, fronts; introduction to atmospheric observing systems. Prerequisites: MET 480 and 383 or concurrent registration.

485/586. Internship in Meteorology.
Cr. 1-6. Students gain experience by working in National Weather Service offices, government laboratories, private consulting firms, or media and broadcasting stations. Prerequisite: junior or senior meteorology major and application for an internship in writing to the Chair of the Department.

490/590. Selected Topics in Meteorology.
Cr. 3. Advanced studies in applied and theoretical meteorology. Topics such as mesoscale dynamics, broadcast meteorology, micrometeorology, atmospheric observing systems, and severe and unusual weather may be considered. May be repeated when topic is different. Prerequisite: MET 103 and 216 and consent of instructor.

495. Independent Study.
Cr. 2-3. Individual research readings on a topic in meteorology agreed upon by a student and a faculty member of his/her choice from the Department. Prerequisites: junior or senior standing and consent of the Chair of the Department.

497. Honors Work in Meteorology.
Cr. 3. See Honors Work, page 48.

498. Honors Candidacy in Meteorology.
Cr. 3. See Honors Work, page 48.
History

Professors Austensen, Berg, Schoppa (Chair), Startt; Associate Professors Kohlhoff, Rubchak; Assistant Professor Schaefner; Visiting Instructor Holien.

One of the central disciplines of the traditional liberal arts, history is concerned with understanding the development of societies and cultures which produced the world as we know it. The historian is present-minded, convinced that illumination of the past is of fundamental importance in today's decision-making and for tomorrow's dreams. History provides a solid major for those with career goals in law, teaching, journalism, government and the ministry. Combining a history major with a Liberal Arts Business Minor has proved to be a popular alternative for those who have strong interests in history and who plan to pursue a business career. Since the history student integrates materials from the social and behavioral sciences, literature, philosophy, religion and the arts, history is also a field for students who view the undergraduate years as time to explore a variety of subjects.

Major. A minimum of 30 credit hours in history constitutes a major. Courses must include HIST 100, 200, 210, and 493. Twelve hours of the major must be taken in courses numbered 300 or above in addition to those listed; for these twelve hours the student must elect at least one course in each of the following fields:

- History of the Americas, European history,
- Non-Western history.

Students who plan on graduate work in history are strongly urged to acquire reading proficiency in at least one modern foreign language.

Minor. A minimum of at least 18 credit hours in history constitutes a minor. Courses must include HIST 100, 200 and 210. The remaining nine hours must be in courses numbered 300 or above, one course from each of the three fields listed under the major.

Degree. Completion of the degree requirements of the College of Arts and Sciences with a major in history leads to the Bachelor of Arts degree.

Pre-Law Students. Pre-law students who are taking a major in history should consult their adviser about appropriate course selections and about the selection of a second major or a minor.

Credit by Examination. Credit for HIST 200 and 210 may be earned through the College Level Examination Program subject examination in Western Civilization or through the Advanced Placement examination offered by the College Entrance Examination Board.

Credit for HIST 220 and 221 may be earned through the College Level Examination Program subject examination in American History or through the Advanced Placement examination offered by the College Entrance Examination Board.

Approval of Schedules. Students taking a major or minor in history must have their schedules approved by the Chair of the Department each semester. In addition, each class of majors is assigned to a member of the Department for advising.

100. The Western World in Global Perspectives.

Cr. 3. A study of the hallmarks of the Western tradition through an examination of three historical cultures, focusing on their views of humanity, nature, religion, society, and the state. Special emphasis is placed on understanding these cultures in their global contexts and on analyzing non-Western cultures as a mirror to the Western tradition. Required of all freshmen as part of the General Education Requirements.

Note: The survey courses, HIST 200 through 241, may be used to fulfill the Philosophical and Historical Studies component of the General Education Requirements. HIST 230, 231, 240 and 241 may be used to fulfill the Global Cultures and Perspectives component of the General Education Requirements.

200. History of Western Thought and Society.

Cr. 3. A study of the thought and social development that has characterized the Western tradition from ancient to modern times.

210. Introduction to the Contemporary World.

Cr. 3. A survey of modern Western and non-Western history. Particular emphasis is placed on the development of the various world civilizations in recent centuries and on the interaction that has occurred among them.

220. United States History to 1865.

Cr. 3. A study of the various aspects of American civilization from the age of discovery to the end of the Civil War, with emphasis on the development of democratic ideas and institutions.

221. United States History since 1865.

Cr. 3. A study of various aspects of American civilization from the Civil War to the present, with emphasis on the development of industrial and world power against a background of social and cultural tensions.

225. Alternative Perspectives of United States History: Racial Minorities and Mainstream America.

Cr. 3. An examination of interactions between the dominant Anglo-Saxon culture and four separate minority cultures, Indian, African-American, Asian American, and Hispanic American, in order to discover the nature of their individual transformations.


Cr. 3. A survey of the major periods of Latin American history to 1825, with emphasis on the pre-Columbian Indian cultures, Africa's contribution and the Iberian heritage.

231. Contemporary Latin American Civilization.

Cr. 3. A survey of the republics from independence to the present, relating contemporary Latin American problems to underdevelopment and unrest in the current world scene.

240. Traditional East Asian Civilization.

Cr. 3. A survey of the traditional cultures of China, Japan, Vietnam and Korea before the impact of Western civilization.

241. Modern East Asian Civilization.

Cr. 3. A survey of the modern history of China, Japan, Vietnam and Korea, with emphasis on the meeting of East and West and the struggle for development and self-expression in our times.

250. African History and Society.

Cr. 3. A survey of pre-colonial and colonial African history that highlights the diversity of African societies.

Note: HIST 351 and 352 are available in Overseas Study Centers only.

251. Survey of English History and Culture.

Cr. 3. A survey of English life from Roman times to the present, emphasizing broad movements, themes and institutions. Cambridge Center.

252. Problems in Modern German History.

Cr. 3. An examination of modern German history emphasizing selected problems. Reutlingen Center.

Note: The courses listed below require at least sophomore standing or consent of the Chair of the Department.

EUROPEAN HISTORY

311/511. Greek and Roman Civilization.

Cr. 3. (Also offered as CLC 311.) A study of the Greek and Roman political, social and intellectual development from the Mycenaean period to the fourth century A.D.

312/512. Europe in the Age of the Reformation.

Cr. 3. A study of the political, socio-economic and religious conditions in Europe under the impact of the Protestant Reformation.

313/513. History of Modern Britain.

Cr. 3. A study of British history from the eighteenth century to the present. Particular attention is given to the impact of eighteenth century revolutions on England, to the industrialization of England and its consequences, to the dynamics of Victorian England, to its transformation in the twentieth century, and to Anglo-Irish relations.

314/514. The British Imperial Experience.

Cr. 3. A study of the British Empire in history, film, and literature. Particular attention is given to an introduction to the Old Dominions (Canada, Australia, New Zealand and South Africa), to Imperial persuasion, and to theories of colonial identities.

315/515. Contemporary Europe.

Cr. 3. A study of twentieth-century Europe emphasizing the rise and impact of Nazi Germany, the era of the Second World War, and major themes associated with recent Europe.


Cr. 3. The political and psychological trauma of the dissolution of an idealized Soviet empire involved the loss of territories and populations that had been part of Russian hegemony since Tsarist times. Fifteen states succeeded the Soviet Union, the majority of them representing new political entities. The course will stress primarily the largest and most influential of these, namely modern Russia, from 1894 to 1994, and will trace its emergence from a Tsarist empire, followed by the USSR, to a modern nation state.

HISTORY OF THE AMERICAS


Cr. 3. A detailed study through readings and discussion of the unresolved conflicts between Great Britain and her American colonies; the political, military and social aspects of the revolution; and the post-war problems culminating in the adoption of the Constitution.
International Economics and Cultural Affairs

Administrative Committee: Associate Professor Duvick (Foreign Languages, Chair); Professors Falkenstein (Foreign Languages), J. Peters (Foreign Languages), Schoppa (History), and Trost (Political Science); Associate Professor Bernard (Economics); Assistant Professors Kavanagh (Foreign Languages), Kilipinen (Geography).

Students who complete the International Economics and Cultural Affairs Program will have fulfilled major area requirements for the Bachelor of Arts degree under the Interdisciplinary Program Option.

Objectives. This interdisciplinary program, with a focus on Europe, Latin America, or Asia, is designed to provide essential background for students considering careers in the fields of international commerce or government service. To implement this goal, it provides a foundation in a modern language and the culture and customs of those who speak it, instruction in international economics, and a survey of appropriate areas of geography, history, and political science. Students interested in pursuing the International Economics and Cultural Affairs Program should confer with the Chair of the Administrative Committee.

Qualified students are encouraged to consider the following Cooperative Education courses: FLF 481, FLGR 481, FLJ 481, or FLS 481.

Requirements. A minimum of 54 credit hours in courses approved by the Administrative Committee. Courses must include Foreign Language and Literature, 17-18 credit hours beyond course number 103 (or 19 credit hours in Japanese or 19-21 credit hours in Chinese); Economics, 15 credit hours; appropriate courses in Geography, History, and Political Science, 18 credit hours. See course listing below. A senior seminar of one course (IECA 493) in the fall semester is followed in the spring semester of the senior year by a senior research project earning 3 credits (IECA 495). Students are encouraged to create an academic portfolio containing examples of their academic work and records of their co-curricular activities relevant to the IECA major. Students work in conjunction with the Chair of the Administrative Committee and appropriate IECA faculty to develop the portfolio, which will serve as a tangible record of achievement and expertise gained in coursework and beyond the classroom.

Honors Work may be undertaken in International Economics and Cultural Affairs with appropriate approval. Students should register for Honors Work in International Economics and Cultural Affairs (IECA 497), and Honors Candidacy in International Economics and Cultural Affairs (IECA 498) (see page 48). Any departmental major or departmental minor may be added to the International Economics and Cultural Affairs program, with the exception of an Economics major or minor and a Foreign Language minor.

Foreign Language and Literature Choose one of the following language options:

CHINESE
FLC 101 Beginning Chinese I or EAST 109 Intensive Elementary Chinese 4-5 Cr.
FLC 102 Beginning Chinese II or EAST 110 Intensive Elementary Chinese: Conversation 4-5 Cr.
FLC 203 Intermediate Chinese I or EAST 209 Intensive Intermediate Chinese 4-5 Cr.
FLC 204 Intermediate Chinese II or EAST 210 Intensive Intermediate Chinese: Conversation 4-5 Cr.
FLJ 250 Topics in Japanese Literature and the Fine Arts or FLJ 251 Introduction to Japanese Literature or EAST 395 Chinese Culture and Civilization 3 Cr.

FRENCH
FLF 204 French Composition and Conversation I 4 Cr.
FLF 232 French Civilization from 1870 to the Present 3 Cr.
FLF 250 Topics in French Literature and the Fine Arts or FLF 222 French Literature from 1800 to the Present 3 Cr.
FLF 306 Contemporary French Language and Communication 4 Cr.
FLF 307 Professional French 3 Cr.

322/522. Slavery, Abolitionism and Sectionalism, 1815-1860. Cr. 3. A detailed study through readings and discussion of the institution of slavery, the growth of abolitionism and other reform movements, and the development of sectionalism leading to the outbreak of the Civil War.
323/523. Civil War and Reconstruction. Cr. 3. A study of the great watershed conflict in American history, with special emphasis on the problems of Black Americans.
324/524. Depression and War: The United States, 1929-1945. Cr. 3. This course examines the nature of the Great Depression and its effects on the relationship of government to citizens in the United States. It also traces the European and Far Eastern origins of the American involvement in World War II as well as the diplomatic and military conduct of that war.
327/527. History of American Political Parties. Cr. 3. A study of the development of American political parties from their appearance in the eighteenth century to the present. Emphasis is placed on the evolution of political leadership, the creation of coalitions and political campaign behavior.
NON-WESTERN HISTORY
341/541. History of Modern China. Cr. 3. A study of the decline of traditional civilization resulting from domestic crises and foreign pressures, and the search for a new orthodoxy in the Chinese revolution.
342/542. History of Modern Japan. Cr. 3. A study of Japan’s rise to its position as a world power with emphasis on the consequent social dislocations in the twentieth century.

SPECIALIZED OFFERINGS
390/590. Topics in History. Cr. 3. A study that covers a particular, large subject in history (e.g., a period or a field), selected according to student interest and instructor choice. This course may be repeated for credit if the selected subjects are different. Although history majors may take any number of these courses, they may include no more than two in a thirty-hour major.
393/593. The Vietnam War through Film and Literature. Cr. 3. Through history, memoirs, novels, and film, this seminar studies the sources and nature of U.S. involvement in the Vietnam War (1961-1973). It examines the war’s effects on the participants and the home front.
489. The Teaching of Social Studies. Cr. 3 (See ED 498). A study of methods of teaching social studies in secondary schools. Prerequisite: admission to Supervised Teaching. This course may not be counted toward a major or minor in the Department.
492/592. Reading and Discussion Seminars. Cr. 2-3. Full- or half-semester courses cover a variety of subject areas with subtitles and content dependent on student interest and instructor choice. In recent years these have included Slavery in the Americas, History of the American South, American Environmentalism, Pearl Harbor, American Immigration History and Cuban Revolution. This course may be repeated for credit if topics are different. Prerequisite: junior or senior standing or consent of the Chair of the Department.
493. Research Seminars. Cr. 3. These are full-semester courses designed for majors, but also open to other students with junior or senior standing. They offer intensive research in both primary and secondary sources and instruction in historical methodology. A major paper constitutes the largest part of the semester’s work. This course may be repeated for credit if the topics are different. Prerequisites: junior or senior standing and the consent of the Chair of the Department.
495. Supervised Study. Cr. 2-3. An opportunity for students to read a number of significant works on a given topic in history, or to do research and write a major paper on a topic not covered in any scheduled offering of the Department. Open to students who have taken at least eighteen credit hours of history and who have obtained the prior consent of both the instructor and the Chair of the Department. This course may be taken only once from a given instructor, only once per subject area and only once for a thirty-hour major.
International Economics and Cultural Affairs

GERMAN
FLGR 204 German Composition and Conversation 4 Cr.
FLGR 232 German Civilization since 1800 3 Cr.
FLGR 250 Topics in German Literature and the Fine Arts 3 Cr.
FLGR 222 Selected Readings in German Literature since 1800 3 Cr.
FLGR 306 Contemporary German Language in the Mass Media 4 Cr.
FLGR 307 Professional German 3 Cr.

JAPANESE
FLJ 101 Beginning Japanese I 4 Cr.
FLJ 102 Beginning Japanese II 4 Cr.
FLJ 203 Intermediate Japanese I 4 Cr.
FLJ 204 Intermediate Japanese II 4 Cr.
FLJ 250 Topics in Japanese Literature and the Fine Arts 3 Cr.
FLJ 251 Introduction to Japanese Literature 3 Cr.

SPANISH
FLS 204 Spanish Composition and Conversation 4 Cr.
FLS 230 Spanish Civilization or FLS 231 Spanish-American Civilization 4 Cr.
FLS 250 Topics in Hispanic Literature and the Fine Arts 3 Cr.
FLS 306 Contemporary Hispanic Society Through Communications 4 Cr.
FLS 307 Professional Spanish 3 Cr.

Economics
ECN 221 Principles of Economics-Micro 3 Cr.
ECN 222 Principles of Economics-Macro 3 Cr.
ECN 235 Comparative Economic Systems 3 Cr.
ECN 326 International Economics 3 Cr.
ECN 336 Economics of Developing Nations 3 Cr.

Geography
GEO 201 Economic Geography 3 Cr.
GEO 311-318 Regional Geography 3 Cr.

History
HIST 230 Origins of Latin American Civilization 6 Cr.
HIST 231 Contemporary Latin American Civilization 6 Cr.

Political Science
POLS 130 Comparative Politics 3 Cr.
POLS 230 International Relations 3 Cr.
POLS 330 Politics of Industrialized States 3 Cr.
POLS 335 Politics of Developing States 3 Cr.
GLST 150. Global Perspectives.
Cr. 3. An interdisciplinary introduction to the concept of culture from both the Western and non-Western view, to the meaning of culture for the development of religious, economic, political, and social institutions, and to the significance of cultural perspective in approaching global issues.

GLST 484. The International Experience: Preparation.
Cr. 5. Preparation for the International Service Learning Internship or other international study semester through reading, discussion and experience with cross-cultural perspectives, stereotypes, and problems. Last eight weeks of the semester.

GLST 485. The International Experience: Reentry.
Cr. 5. A debriefing of the students' international experience in order to process, focus, and interpret what they have learned. Discussion, reading, and interaction with students preparing for an international study semester. First eight weeks of the semester.

Cr. 3. Students gain experience through placement with a service organization or agency in a foreign country. Prerequisite: GLST 484, junior standing, and application in writing to the Chair one semester in advance. Generally taken concurrently with an international study semester.

ISP 487. Service-Learning Internship.
Cr. 1. Students gain experience through working with an agency or organization involved in international service. Prerequisite: junior standing and application in writing to the Chair one semester in advance.

ISP 493. International Service Senior Seminar.
Cr. 3. Research, discussion, and writing on a topic central to international humanitarian concerns. Required of all senior majors and comprehensive majors. Prerequisite: senior standing or consent of the Chair.

Mathematics and Computer Science

Professors Caristi, D. Johnson, Marion, Sorensen; Associate Professors Carlson, Gillman, N. Hughes, Hull, Lehmann, Sullivan (Chair), Treanor, Wagenblast; Assistant Professor Hume, Pearson.

Mathematics is the disciplined form of communication which serves both to lend structure to scientific, engineering and economic principles, and to provide a beauty of formalism in its own right. It is characteristic that many important mathematical discoveries have been made by scientists, while at the same time pure mathematics has opened up unexpected new advances in science.

As a data processing tool, the computer has made possible extending both numerical manipulation and forms of language communication far beyond ordinary human capabilities. Computing has developed languages of its own to ease the human-machine interface. Learning how best to use these languages and to design strategies for problem solving are major objectives of computer science. Computer science also studies computer design and computer architecture and the integration of computer components into systems.

Careers in mathematics include statistical analysis, education, scientific, industrial, and mathematical research, operations research and actuarial science. Students can prepare themselves for the first two actuarial examinations by completing an appropriate sequence of courses. Careers in computer science include systems programming, applications programming and data management.

Mathematics

Major. A minimum of 37 credit hours in mathematics constitutes a major. Courses must include those in the Core and in either Program 1 or Program 2.

Core. MATH (131 or 151), 152, 253, 264, 265, 399, and 499.


Program 2. Emphasis on Operations Research: MATH 240, 322, 344, 422, and two courses numbered above 300.

Majors from both programs must also complete CS 157. Mathematics majors are strongly encouraged to take CS 158 and 225. Completion of the degree requirements of the College of Arts and Sciences with a Program 1 or Program 2 major in mathematics leads to the Bachelor of Arts or Bachelor of Science degree.

Complementary Major. A student with a first major in another discipline may take a complementary major in mathematics. A minimum of 31 credit hours in mathematics constitutes a complementary major. Courses numbered in MATH (131 or 151), 152, (240 or 253), 264, 265, 399, (422 or 451 or 461), 499, and three other courses numbered above 300.

A student having a mathematics major in view should begin mathematics in the freshman year. A mathematics major should elect French or German to satisfy the foreign language component of the General Education Requirements. Anyone in either program planning to do graduate work in mathematics should include MATH 452 and 462.

A student in either program may tailor a mathematics major with a statistical emphasis. This option includes MATH 240, 340, 341, 342, and 344. In addition to regular courses, members of the faculty offer study sessions that prepare students to take the first two examinations offered by the Society of Actuaries. Valparaiso University is a testing center for these examinations.

The Mathematics Club and Student Chapters of both the Mathematical Association of America and the Association for Computing Machinery involve students in extracurricular activities.

Minors. A minimum of 15 credit hours in mathematics, including one of MATH 122, 132, or 152 constitutes a minor in mathematics. No more than two of the following courses may be included: MATH 120, 122, 124, 131, 132, 151, 152, 213, 214. See page 187 for a description of the Applied Statistics Minor.

Teaching Programs. Students who plan to teach mathematics in secondary schools
110. Quantitative Problem Solving. 
242. Cr. 3. A course to assist students in developing fundamental mathematical concepts and processes. Emphasis placed on problem solving, reasoning, communication, and mathematical connections. Students recommended for this course should take it prior to enrolling in courses with quantitative content. This course is offered for S/U grade only and may not be used to fulfill the General Education Requirement in the College of Arts and Sciences nor be counted toward a major or minor in mathematics.

114. Precalculus. 
Cr. 1-4. (See paragraph on Placement.) A course for students who plan to take a calculus sequence. Topics may include sets and numbers, relations and functions, trigonometric functions, exponential and logarithmic functions. This course may not be used to fulfill the General Education Requirement in the College of Arts and Sciences nor be counted toward a major or minor in mathematics. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

120. Mathematical Ideas. 
Cr. 4. (See paragraph on Placement.) A one-semester course intended primarily for students majoring in the humanities. The relationship between mathematics and modern society is studied. Emphasis is placed on the development of mathematical concepts. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

122. Intuitive Calculus of One or More Variables. 
Cr. 4. (See paragraph on Placement.) A course for students with a good foundation in mathematics who are interested in mathematical models for the life, management or social sciences. Topics include limits, continuity, derivatives and applications, integrals and their applications and selected topics in multivariate calculus. Not open to students with credit for MATH 151 or 152. Prerequisite: MATH 114 or placement of MATH 122, 131, or 151 on the math placement examination.

124. Finite Mathematics. 
Cr. 4. (See paragraph on Placement.) A course for students with a good foundation in mathematics who are interested in mathematical models for the life, management or social sciences. Topics include matrix algebra, linear programming, finite probability, sequences, and mathematics of finance. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

131. Analytic Geometry and Calculus I. 
Cr. 5. (See paragraph on Placement.) A first course in the calculus sequence designed for students who plan to major in mathematics, engineering or a physical science. In contrast to MATH 151, more time is devoted to the precalculus aspects of the material and to comprehensive treatment of trigonometric functions. Topics include an extensive review of set theory, the real number system, inequalities, absolute value, elementary functions and their graphs, and continue to limits, continuity and derivatives; applications of the derivative; an introduction to the theory of the integral. Not open to students with credit for MATH 122 or 151. Prerequisite: MATH 114 or placement of MATH 131 or 151 on the math placement examination.

132. Analytic Geometry and Calculus II. 
Cr. 5. A continuation of MATH 131. Topics include techniques of integration; applications of the definite integral; exponential, logarithmic and inverse trigonometric functions; indeterminate forms and improper integrals; sequences and series. Prerequisite: MATH 131 or 151. Not open to students with credit for MATH 152.

151. Calculus I. 
Cr. 4. (See paragraph on Placement.) A first course in the calculus sequence designed for students who plan to major in mathematics, engineering or a physical science. Includes a brief review of precalculus mathematics (set theory, the real number system, inequalities, absolute value, algebraic and trigonometric functions); limits, continuity and derivatives; applications of the derivative; an introduction to the theory of the integral. Not open to students with credit for MATH 122 or 131. Prerequisite: placement of MATH 151 on the math placement examination.

152. Calculus II. 
Cr. 4. A continuation of MATH 151. Topics include applications of the definite integral, additional techniques of integration, exponential, logarithmic and inverse trigonometric functions, indeterminate forms and improper integrals; sequences and series. Not open to students with credit for MATH 132. Prerequisite: MATH 131 or 151.

211. Laboratory in Elementary Mathematics I. 
0+1. Cr. 0. This course is designed to provide an opportunity for prospective elementary teachers to learn mathematical concepts in an active, materials-oriented context and to acquaint them with materials appropriate for use in the elementary school. Topics include those in MATH 213. Enrollment is restricted to students majoring in elementary education. Prerequisite: concurrent registration in MATH 213. S/U grade.

212. Laboratory in Elementary Mathematics II. 
0+1. Cr. 1. A continuation of MATH 211. Topics correspond to those in MATH 214. Prerequisite: concurrent registration in MATH 214. S/U grade.

213. Mathematics for Elementary Teachers I. 
Cr. 4. This course is restricted to students majoring in elementary education. Topics include elementary logic, sets, problem solving, numeration systems, the whole number system, the rational number system and elementary number theory. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

214. Mathematics for Elementary Teachers II. 
Cr. 4. A continuation of MATH 213. Topics include two-and three-dimensional geometry, measurement, functions, graphs, probability and statistics. Prerequisite: Mathematics 213.

Cr. 4. Elementary and linear differential equations, applications of differential equations, matrices and systems of linear equations, eigenvalues and eigenvectors, introduction to systems of linear differential equations. Prerequisite: MATH 132 or 152.

240. Statistical Analysis. 
Cr. 3-4. An introduction to concepts that provide a mathematical foundation for probability and statistics. Topics include probability, empirical and theoretical frequency distributions, sampling, correlation and regression, testing hypotheses, estimation of parameters. Emphasis is placed on illustrations and applications of these techniques. Prerequisites: MATH (124 and 122) or 132 or 152.

253. Calculus III. 
Cr. 4. A continuation of MATH 132 or 152. Topics include vector fields, conservative fields, multiple integration, calculus of vector fields. Not open to students with credit for MATH 233. Prerequisite: MATH 132 or 152.

Cr. 3. An introduction to the type of mathematical reasoning and subject matter which will be encountered in advanced mathematics. Topics include basic logic, set theory, relations and functions, and infinite sets. Prerequisite: MATH (122 and 124) or 132 or 152 or the equivalent.

262. Vectors and Linear Algebra. 
Cr. 3. Vectors in 2-space and 3-space, systems of linear equations and matrices, determinants, vector spaces, eigenvalues and eigenvectors, applications. Prerequisite: MATH (122 and 124) or 132 or 152.

264. Linear Algebra I. 
Cr. 3. The purpose of this course is two-fold: to introduce students to mathematical reasoning and to explore topics in linear algebra. By studying the mathematical vocabulary and the logical structure of the foundation of linear algebra, students learn the fundamental logic of Mathematics and Computer Science.
deductive and inductive reasoning; encounter and construct proofs of elementary theorems using direct, indirect, existence and inductive arguments; and understand the role of mathematical definitions and counterexamples. Topics in linear algebra include systems of linear equations, matrices, determinants, vectors in n-space, abstract vector spaces, and linear transformations. Prerequisite: MATH 132 or 152 or the equivalent.

265. Linear Algebra II with Differential Equations. Cr. 3. A continuation of MATH 264. Linear algebra topics include further study of linear transformations, eigenvalues, and eigenvectors. Topics from differential equations include first-order differential equations, linear differential equations, systems of differential equations, and phase plane analysis. Prerequisite: MATH 264.

267. Algebraic and Discrete Structures I. Cr. 3. An introduction to mathematical reasoning and to the concepts that provide a mathematical foundation for computer science. Topics are selected from propositional and predicate calculus, algorithms, mathematical proof techniques, discrete probability, recurrence relations, Boolean algebra, graph theory, and applications. Prerequisite: MATH 122 and 240 or 133 or 152.

290. Topics in Mathematics. Cr. 1-3. Topics may include problem solving techniques, computer applications or topics from finite mathematics. Prerequisite: consent of the instructor.

312. History of Mathematics. Cr. 3. A study of the development of mathematics. This will usually be a survey of mathematics from earliest times to the present, though special topics may be chosen according to the interest of the class. Prerequisite: consent of the instructor. Offered upon sufficient demand.

314. Elements of Geometry. Cr. 4. Logic, axiom systems and models; consistency, independence and completeness; consideration of the foundations of Euclidean and non-Euclidean geometries; topics from projective and transformational geometries. Prerequisite: MATH 264.

320. Mathematical Models in the Life and Social Sciences. Cr. 3. Topics are chosen according to the interests of the class. These may include utility and measurement, graph theory, game theory, learning models, models of growth processes, and simulation. Prerequisite: a statistics course and one of the following: MATH 122, 132, or 152. Offered in alternate years.

322. Optimization. Cr. 3. Theory and computer algorithms for the solution of mathematical programming problems and applications. Topics include the simplex method, cutting planes, branch and bound methods and numerical methods for unconstrained optimization, game theory and dynamic programming. Prerequisites: MATH 234 or 262 or 264. Offered in alternate years.

340. Statistics for Decision Making. Cr. 3. (Also offered as DS 340). A study of statistical concepts and methods to facilitate decision making. Content includes analysis of variance, simple and multiple regression, correlation, time-series analysis, nonparametric methods and Bayesian decision making. Prerequisite: MATH 240 or DS 205.

341. Probability. Cr. 3. A course in probability with some topics applicable to statistics. Topics include probability spaces, random variables, classical discrete and continuous probability distributions. Prerequisites: MATH 132 and 240, or 152 and 240.

342. Mathematical Statistics. Cr. 3. This is a course in statistics based upon the probability background of MATH 341. Topics include sampling theory, estimation, tests of hypotheses, analysis of variance, and nonparametric statistics. Prerequisite: MATH 341. Offered upon sufficient demand.

344. Applied Probability and Statistical Decision Theory. Cr. 3. A survey of probabilistic models used in decision theory. Topics include stochastic processes, queueing theory, forecasting, Bayesian decision theory, reliability, and simulation. Prerequisites: MATH 240 and (234 or 262 or 264). Offered in alternate years.

350. Differential Equations. Cr. 3. Elementary and linear differential equations, systems of equations, series solutions including the method of Frobenius, LaPlace transforms, applications. Prerequisites: MATH 253 and (234 or 264).

368. Algebraic and Discrete Structures II. Cr. 3. A continuation of MATH 267. Prerequisite: MATH 267.

370. Numerical Methods. Cr. 3. (Also offered as CS 370). The analysis and implementation of basic numerical techniques: matrix methods for the solution of systems of equations, interpolating polynomials, finite differences, numerical differentiation and integration, numerical solution of differential equations, zeros of non-linear equations and error analysis. Students are expected to solve problems using a digital computer. Prerequisites: CS 225 or its equivalent and one of the following: MATH 234 and 253; 265, or 350.

381. Cooperative Education in Mathematics I. Cr. 1-2. The application of mathematical concepts in a professional setting. Grade based on employer's evaluation and student's written and oral reports. Prerequisites: MATH 265 or approval of the Chair of the Department. S/U grade.

382-383. Cooperative Education in Mathematics II-III. Cr. 1-2. Continuation of MATH 381. Prerequisite: MATH 381. S/U grade. May be repeated beyond 483 for additional credit.

399. Mathematics Colloquium. Cr. 0. All mathematics majors with at least sophomore standing are expected to register for this course. Students are required to attend sessions of MATH 499 and to participate in the discussion of topics presented by faculty and students. S/U grade.

422. Graphs and Networks. Cr. 3. A theoretical study of applied graph theory and network theory. Topics include graph colorings, Hamiltonian and Eulerian graphs, trees, assignment problems, and max-flow/min-cut problems. Prerequisite: MATH 322. Offered in alternate years.


434. Introduction to Complex Variables. Cr. 3. Analytic functions, derivatives, power and Laurent series, integral residues, conformal mapping, applications to partial differential equations. Prerequisites: MATH 253 and 234 or 264. Offered upon sufficient demand.

451. Analysis I. Cr. 3. Differentiation and convergence in real n-space, implicit and inverse function theorems, topology of real n-space, and uniform convergence. Prerequisites: MATH 253 and 264.

452. Analysis II. Cr. 3. Theory of integrals, multiple integration and the Jacobian, line and surface integration, metric spaces and their topology. Prerequisite: MATH 451. Offered upon sufficient demand.

461. Abstract Algebra I. Cr. 3. A study of mathematical structures: groups, rings, and fields. Properties of groups, substructures, quotient structures, and homomorphisms. Prerequisite: MATH 264.

462. Abstract Algebra II. Cr. 3. A continuation of MATH 461. Topics may include a more detailed study of rings, polynomial rings, field extensions, field automorphisms, an introduction to Galois theory, further work in group theory, an introduction to additional structures. Prerequisite: MATH 461. Offered upon sufficient demand.

489. The Teaching of Mathematics. Cr. 3. (See ED 489.) A study of the methods of teaching mathematics in secondary schools. Prerequisite: admission to Supervised Teaching. This course may not be counted toward a minor in Mathematics.

491. Advanced Topics in Mathematics. Cr. 3. An advanced course for mathematics majors. The topic studied, which may change from year to year, is ordinarily one of the following: number theory, advanced abstract algebra, differential geometry, partial differential equations, measure and integration or functional analysis. Prerequisite: consent of the Chair of the Department. Specific course requirements depend on the content. Offered upon sufficient demand.

492. Research in Mathematics. Cr. 3. Each student must undertake a research problem in mathematics under the direction of a faculty member. Written and oral reports are required. Prerequisite: consent of the Chair of the Department.

493. Seminar in Applied Statistics. Cr. 3. (Also offered as ECON 493 and as DS 493.) An intensive study of selected topics, methods, techniques, and problems in applied statistics. Prerequisite: MATH 340 or DS 340 or ECON 325.

495. Independent Study in Mathematics. Cr. 1-3. Students study advanced topics in mathematics under the supervision of a faculty member. Written work is required. Prerequisite: consent of the Chair of the Department.


499. Mathematics Colloquium. Cr. 1. Student presentation of selected topics in mathematics arising from the mathematical literature. Students register for this course during one semester of their senior year. Prerequisite: MATH 399.
Computer Science

Major. A minimum of 28 credit hours in Computer Science constitutes a major. Courses must include CS 157, 158, 235, 246, 355, 357, 453. Of the remaining credits all must be from Computer Science courses numbered above 120, including at least 6 credits from Computer Science courses numbered above 300.

Majors must complete the following mathematics courses: MATH 122 or 132 or 152; MATH 240; MATH 267; and MATH 368.

Any student considering the study of computer graphics or graduate study in Computer Science is strongly encouraged to take a course in linear algebra before graduation.

A student seeking the Bachelor of Science degree with a major in Computer Science must complete the above program. In addition the student must complete CS 358.

The minimum number of credits in Computer Science for the Bachelor of Science degree is 32.

Computer Science majors who elect to or who must satisfy the foreign language requirement should choose German or French.

A student planning to major in Computer Science should begin both Computer Science and Mathematics in the freshman year.

Minor. A Computer Science minor consists of a minimum of 15 credit hours in computer science. Courses must include CS 157, 158, 235, 246, and one 3 credit Computer Science course numbered above 230. In addition, the student must complete MATH 122 and 267 or (131 and 132) or (151 and 152) and 240.

Cooperative Education. Credit in Computer Science may be obtained for cooperative education experiences related to Computer Science. Students must prepare a brief proposal describing the intended experience and secure a Computer Science advisor, who will decide whether the work merits Computer Science credit. For each term of Computer Science related work, students may receive 2 credits for a summer experience, or 3 credits for a full-time semester experience. No more than 3 credits may be counted toward the minimum major requirements or the Computer Science minor. (An exception may be made in the case of the Bachelor of Science degree, where up to 4 credits in Cooperative Education may be counted toward the 32-hour single major.) If these credits are used to fulfill minimum credit hour requirements for a major or minor, at least two Computer Science experiences are required, at least one of which must be a full-time semester experience. In addition to meeting the College of Arts and Sciences 2.50 cumulative grade point average requirement, students must present a 2.50 grade point average for all required Computer Science courses in the major taken prior to participation in the Cooperative Education program. For further information, refer to Cooperative Education, College of Arts and Sciences, page 49.

Cr. 4. A general survey of central topics in computer science with emphasis on the scientific aspects of computing. This course stresses analysis and inquiry into the limits of computation and properties of new computational models. Topics such as algorithms and their analysis, human-machine interfaces, artificial intelligence, software engineering, modeling of data, and parallel and sequential computation will be introduced to demonstrate how computing relates to other disciplines. Experiments in a laboratory environment will be part of the course. This course may be used to fulfill the Natural Science and Mathematics component of the General Education Requirements. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

128. BASIC Programming.
Cr. 1-3. Normally 3 Cr. A 1-Cr. version for science majors is offered as needed. An introduction to computer problem-solving techniques using the BASIC language. Prerequisite: proficiency in algebra.

157. Algorithms and Programming I.
Cr. 3. A fundamental course in algorithm development and problem solving and an introduction to the use of a computer system with special emphasis on structured programming concepts in a language such as Pascal. In order to solve problems in a computer environment, the student designs elementary algorithms and writes, debugs and documents programs for the implementation of those algorithms. Students may not receive credit for both CS 157 and ECE 155. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

158. Algorithms and Programming II.
Cr. 3. (Also offered as ECE 158.) A continuation of CS 157, with emphasis on the development of structure and discipline in program design and style, especially for intermediate size programs. Prerequisites: CS 157 or ECE 155 or 202.

220. Digital System Design.
Cr. 3. (Also offered as ECE 220.) Fundamentals of logic design, information transfer and control in a digital system, organization and structure of hardware components of digital computers.

225. The FORTRAN Language.
Cr. 2. An introduction to FORTRAN as a second programming language. Prerequisite: CS 157 or ECE 155 or permission of the instructor.

226. COBOL Programming.
Cr. 3. An introduction to computer programming in a business environment. Emphasis on the fundamentals of structured program design and development, testing, implementation and documentation of common business-oriented applications using COBOL. Includes coverage of sequential and random access files and the techniques for manipulating them in COBOL. Prerequisite: CS 157 or ECE 155.

235. Data Structures.
Cr. 3. (Also offered as ECE 235.) A detailed study of various data structures, including stacks, queues, linked lists and trees. The emphasis will be on algorithms to build and manipulate the data structures, various implementations, time analysis of the algorithms and applications, such as garbage collection. Prerequisites: MATH 122 or 132 or 152; corequisites: CS 158.

Cr. 2+2. Cr. 3. (Also offered as ECE 246.) Fundamentals of the structure of digital computers and an introduction to assembly language programming. Topics include machine instructions, data representation, addressing techniques and program segmentation and linkage. Corequisite: CS 158.

290. Topics in Computer Programming.
Cr. 1 (7 weeks) or 2 (semester). The content of this course may vary from semester to semester, but is ordinarily a study of a computer programming language not covered in other Computer Science courses. Possible languages to be studied include Ada, C, Lisp, and Prolog. This course may be repeated for credit, provided that topics are different. Prerequisite: usually equivalent to CS 157. Specific requirements depend on course content.

325. Simulation and Modeling.
Cr. 3. An introduction to computer simulation of mathematical models of discrete and continuous phenomena. Some standard simulations are examined, others implemented using a simulation language. Prerequisites: a course in calculus, a course in probability and statistics, and a course in programming.

335. Database Management Systems.
Cr. 3. Concepts and structures used in designing and implementing database management systems. Topics include the important data models, normalization, data dictionaries and languages for data definition and manipulation, security, integrity, and reliability. Prerequisite: CS 225.

Cr. 3. Introduction to the concepts of operating system programming and interrelationships between the operating system and machine architecture. Topics include procedures, processes, resource management and interrupt-driven processing. Students program in assembly language. Prerequisites: CS 235 and 246. Offered upon sufficient demand.

355. Organization of Programming Languages.
Cr. 3. (Also offered as ECE 355.) Formal languages constructs as exhibited in a variety of programming languages. Topics include syntax and basic characteristics of grammars, parsing, data types and structures, run-time considerations. Corequisite: CS 235. Recommended: MATH 267 or 268.

358. Software Design and Development.
Cr. 3+2. Cr. 4. The specification, design, implementation, documentation and testing of software systems. Principles of project management. Case studies. Intensive work on a group project, directed by the instructor, to design and develop a usable software system. Prerequisites: CS 235.

Cr. 3. (Also offered as ME 440.) A study of the fundamentals of interactive computer graphics systems and software. Emphasis is placed on graphics primitives, geometric transformation and projection, methods of creating visual realism, and selected graphics algorithms. Prerequisites: CS 158 (CS 235 is recommended) and MATH 234 or 262 or 264.

367. Artificial Intelligence.
Cr. 3. Introduction to the techniques used in the field of artificial intelligence. Topics include knowledge representation, search strategies, and heuristic programming, with some discussion of areas such as expert systems, natural language translation, pattern recognition, learning programs, and robotics. Students will program in the LISP programming language. Prerequisite: CS 355.
Modern European Studies

**Administrative Committee:**
Professor Startt (History, Chair); Professors Henderson (Economics), Morgan (Art), J. Peters (Foreign Languages), Ruff (English), Trost (Political Science).

Modern European Studies is an interdisciplinary program that may be taken either as a complementary academic major or as an academic minor in partial fulfillment of the major field requirements.

**Objectives.** Throughout all of the modern centuries, Europe has been central to the cultural, economic, and political development of the entire West as well as a major force in shaping events and patterns of change in the world beyond the West. Today there are numerous signs to indicate that it will continue as one of the world’s several most significant areas far into the future. For a comprehensive understanding of Europe, it is necessary to study it in terms of time and space and to inquire into the major currents detectable in its cultural, economic, and political life, past and present. The Modern European Studies Program affords an opportunity for this broad study. By combining courses from various departments, it spans the modern centuries (i.e., from the sixteenth century to the present) and explores present thought and issues from a variety of perspectives.

Designed to address the needs of students who consider an understanding of movements, issues, and achievements associated with modern Europe as an essential part of a broad liberal education, the Program will provide a natural extension or supplement for a number of traditional departmental majors. It affords a particular strong background for students planning to pursue graduate work in a field involving knowledge of Europe and for those preparing themselves for a professional future in the cultural arts, public affairs, and business fields with a European dimension. For those hoping to work in educational, informational, and journalistic areas related to Europe, the Program is an ideal course of study.

**Major.** Thirty-three credit hours constitutes a major. They must include the Program Core courses, 15 credit hours in courses selected from at least three of the participating departments, and MEUR 495. No more than four courses from the Program major may be used to fulfill another major, minor or general education requirement.

**Minor.** Eighteen credit hours constitutes a minor. They must include the Program Core courses and 3 credit hours of electives. No more than two courses from the Program minor may be used to fulfill another major, minor or general education requirement.

Students in this Program must meet the general education requirement in a European language. Courses approved by the Program Chair taken at the university’s European study centers or in European study-abroad programs may also be counted as part of the Program. All courses beyond those in the Program Core must have the approval of the Chair of the Program’s Administrative Committee.

**Program Core**

There are no prerequisites for ECON 370 for Modern European Studies majors. Foreign Language and English Literature courses listed as option in the Program Core but not selected may be taken as electives in the Program.

**ART 318** 19th Century European Art or **ART 319** Early 20th Century European Art 3 Cr.

**ECON 365** Modern European Economic History or **ECON 370** History of Economic Thought 3 Cr.

**HIST 315** Contemporary Europe 3 Cr.

**POLS 330** Politics of Industrialized States 3 Cr.

Select one of the following:

**FLF 222** French Literature from 1800 to the Present 3 Cr.

**FLGR 222** Selected Readings in German Literature since 1800 3 Cr.

**FLS 321** Spanish Literature 3 Cr.

**English Literature,** select from 400-level English Literature courses 3 Cr.
Elective Courses

Foreign Language courses numbered 250 are taught in translation and may be counted when the topic is appropriate. Topical courses numbered 390 or 490 may be taken from participating departments when they focus on a European topic.

ART 102 Art History ........................................... 3 Cr.
ART 311 Topics in the Theory and History of Art ........................................... 1-4 Cr.
ART 317 17th and 18th Century European Art ........................................... 3 Cr.
ART 318 19th Century European Art ........................................... 3 Cr.
ART 319 Early 20th Century European Art ........................................... 3 Cr.
ART 324 Comparative Economic Systems ........................................... 3 Cr.
ART 325 Modern European Economic History ........................................... 3 Cr.

ENGL 430 Literature of the Restoration and 18th Century ........................................... 3 Cr.
ENGL 431 Literature of the 19th Century ........................................... 3 Cr.
ENGL 456 The Novel ........................................... 3 Cr.
ENGL 460 Twentieth Century Drama ........................................... 3 Cr.
ENGL 470 Twentieth Century Fiction ........................................... 3 Cr.
ENGL 475 Twentieth Century Poetry ........................................... 3 Cr.

FLF 221 French Literature from the Middle Ages to 1800 ........................................... 3 Cr.
FLF 222 French Literature from 1800 to the Present ........................................... 3 Cr.
FLF 231 French Civilization to 1870 ........................................... 3 Cr.
FLF 232 French Civilization from 1870 to the Present ........................................... 3 Cr.

FLG 231 German Civilization to 1800 ........................................... 3 Cr.
FLG 232 German Civilization since 1800 ........................................... 3 Cr.
FLG 250 Topics in German Literature and the Fine Arts ........................................... 3 Cr.

FLS 230 Spanish Civilization ........................................... 3 Cr.
FLS 250 Topics in Hispanic Literature and the Fine Arts ........................................... 3 Cr.

FLS 321 Spanish Literature ........................................... 3 Cr.

GEO 312 Regional Geography of Europe ........................................... 3 Cr.

HIST 312 Europe in the Age of the Reformation ........................................... 3 Cr.
HIST 313 History of Modern England ........................................... 3 Cr.
HIST 314 The British Imperial Experience ........................................... 3 Cr.

HIST 319 Modern Russia: A Vision ........................................... 3 Cr.

HIST 492 Readings and Discussion Seminars (when the topic is appropriate) ........................................... 3 Cr.

PHIL 225 Early Modern Philosophy ........................................... 3 Cr.

PHIL 360 Existentialism and Contemporary Continental Philosophy ........................................... 2 Cr.

POLS 130 Comparative Politics ........................................... 3 Cr.

POLS 230 International Relations ........................................... 3 Cr.

TTVA 238 World of Theatre I ........................................... 3 Cr.

TTVA 239 World Of Theatre II ........................................... 3 Cr.

MEUR 495 Independent Study. Cr. 3. An independently supervised course that may be taken in any of the departments participating in the Program. Students are expected to produce a major paper involving at least two of the disciplines included in the Program and meet the course criteria established by the Administrative Committee. Before registering for the course, students must have the approval of the supervising professors and the Program Chair.

Music

Professor W. Elfrig: Associate Professor Bethnal, Cock, L. Ferguson (Chair), Jean, Lewis; Assistant Professors Doebler, Friesen-Carper.

The Department of Music offers three degree programs, each with multiple tracks: Bachelor of Arts, Bachelor of Music or Bachelor of Music Education. The Bachelor of Arts may be pursued as a traditional liberal arts music major or may be pursued through an interdisciplinary track in Music Enterprises or in conjunction with an interlocking (complementary) major in Theatre. The Bachelor of Music may be earned through concentrated professional study in one of three tracks: performance, church music, or composition. The Bachelor of Music Education, which carries full teaching certification, may be earned in vocal music, instrumental music, or a combination of vocal and instrumental music. All these degrees are fully accredited by the national Association of Schools of Music. Deacohen training may be combined with the study of church music through Deaconess Program Plan 2 (see page 47).

Graduates from the Department of Music pursue careers in many contexts: teaching music in elementary and secondary schools and in private studios; professional music leadership in churches; and positions in arts related businesses (arts management, recording, publishing, music retailing, music technology, and entertainment). The Music curriculum is also especially well designed to prepare students for graduate study in music leading to professions in higher education and performance. Mastery of performance, verbal, and critical thinking skills is expected in most music-related professions. Some fields, such as music education, church music, and music enterprises, require hands-on training through internship experiences. Skill in use of electronic technology is increasingly important in many music-related fields. Ability to improvise, compose, arrange, and conduct increases the musician's changes for success. The Music curriculum is designed to meet these expectations.

Admission. A performance audition and diagnostic profile exam in musicianship is required for entry into the music major. Music majors must also meet all admissions requirements set by the University and by the College of Arts and Sciences.

Departmental Requirements. Majors and minors must meet all requirements set for them by this department, as outlined in the Department Handbook for Music Students which is distributed at the beginning of each academic year and which is available on request from the Department of Music Office. Regulations concerning student performance, concert attendance, ensemble participation, and the Keyboard Competency Tests are included in the Handbook.

Special Co-Curricular Programming. Visiting performers, scholars, and clinicians supplement the regular curricular instruction through frequent recitals, lectures, workshops, and seminars presented by the Department. Annual events of long-standing include the Jazz Festival, the Church Music Seminar, and the Heritage Fest. A wide array of faculty and guest performances, combined with regular presentation of student soloists, chamber musicians, and ensembles are programmed annually. The concert calendar is deliberately filled to support student learning in the major; at the same time it offers rich cultural opportunities to other students and all members of the University community, as well as larger audiences in Northwest Indiana.

Bachelor of Arts

The Bachelor of Arts in music, the traditional liberal arts music track, allows ample time for a second major or a minor; an international or urban semester is also possible. Candidates for the Bachelor of Arts degree with a major in music must meet all General Education Requirements as well as departmental requirements.

Music Major. A minimum of 31 credit hours in Music constitutes a major. Courses must include MUS 109, 110, 163, 184, 263; two from MUS 317, 318 and 319; six credit hours in the student's principal performing medium (completion of MUS 203) and four credit hours of ensemble participation.
Music/Theatre Complementary Major. Professional career opportunities as well as contemporary directions in the creative arts encourage students of the performing arts (Music, Theatre, and Dance) to coordinate studies in all of these departments. The complementary major in Music/Theatre prepares students for stage careers, for leadership in performing arts, and for creation of new art works. Students who complete the Music/Theatre complementary major fulfill the major requirements for the Bachelor of Arts degree. In addition, their transcripts note “Music/Theatre”.

Music/Theatre: General Education

For General Education Requirements of the College of Arts and Sciences see page 39.

Three credit hours of MUS 317, 318, or 319 may be counted toward the Fine Arts-Literature component. INTS 400 (Collaboration in the Arts) fulfills the Integrative Studies requirement. Total General Education 52 Cr.

Music Core

MUS109, 110 Basic Musicianship 6 Cr.
MUS163, 164, 263 Music Theory 9 Cr.
MUS317 History and Literature of Music I 8 Cr.
MUS318 History and Literature of Music II 8 Cr.
MUS453 is required; the total required is 12 Cr.
MUS Core

MUS109, 110 Basic Musicianship 6 Cr.
MUS163, 164, 263 Music Theory 9 Cr.
MUS317 History and Literature of Music I 8 Cr.
MUS318 History and Literature of Music II 8 Cr.
MUS319 History and Literature of Music III 8 Cr.
Music/Theatre Complementary Major

MUS210 Language Diction 1 Cr.
MUS211/TVA 211 Language Diction 2 Cr.
MUS404 Recital 1 Cr.
INTS 400 Collaboration in the Arts 3 Cr.
MUS 134 Voice and Diction 2 Cr.
MUS 135 Acting I 3 Cr.
MUS 172 Modern Dance I 3 Cr.
MUS 239 Acting II 3 Cr.
MUS 390 Dance Forms 3 Cr.
Total 24 Cr.
Electives 17 Cr.
Total required for graduation 124 Cr.

Bachelor of Music Education

The General Education Requirements for this degree are given on page 42. Also required are PSY 110 and one course from COMM 145, 243 or TTVA 141. The music requirements are outlined below:

Music Core

MUS 109, 110, 209 Basic Musicianship 9 Cr.
MUS 163, 164, 263, 264 Music Theory 12 Cr.
MUS 317, 318, 319 History and Literature of Music 9 Cr.
MUS 213 Basic Conducting 2 Cr.
MUS 313 Intermediate Conducting 2 Cr.
Music Ensemble

Total 40 Cr.

Music Education Core

Specializations: Vocal Instrumental

Principle Instrument 10 8 8
Secondary Instrument* 3 3 5
MUS 228 1 1 1
MUS 238 2 2 2
MUS 389 3 3 3
MUS 489 Total credits 21 22 25
Total for graduation 138 140 142

Bachelor of Music

For the General Education Requirements for this degree, see page 41. The music requirements are outlined below:

Music Core

MUS 109, 110, 209 Basic Musicianship 9 Cr.
MUS 163, 164, 263, 264 Music Theory 12 Cr.
MUS 317, 318, 319 History and Literature of Music 9 Cr.
MUS 213 Basic Conducting 2 Cr.
MUS 263 Twenty-First-Century Techniques 3 Cr.
MUS 464 Studies in Counterpoint 3 Cr.
Music Ensemble 8 Cr.
Total 46 Cr.

Other Requirements

Program: Church Music Composition ORGAN VIOCE

MUS 312 
MUS 313 
MUS 430 1+2 1+2+
MUS 415 2 2 2
MUS 454 1 1 1
MUS 473 4 4 4
Composition 12
Piano 4 4 4
Organ 205 205#
Voice 204 204#
Instruments 2 2 2
Total credits 40 40 28
Elective credits 3 3 3
Total required 136 136 128

Master of Music

This program is intended for performers, music teachers in the public and private schools, studio teachers, church musicians and others who wish to continue their professional studies at the graduate level. An appropriate bachelor's degree in music is a prerequisite. In addition to completing the admission procedures of the Graduate Division, students must audition in their principal performing medium and submit two letters of recommendation, addressed to the Department of Music. Students whose undergraduate degree is not the one specified as a prerequisite for a given program may be required to take specified undergraduate courses; such courses do not apply to the M.M. degree. For further information, consult the Graduate Division Catalog.

THEORY, HISTORY AND METHODS

Cr. 3. A study of the basic forms and styles of musical art in Western civilization and in non-Western cultures. This course may be used to fulfill the Fine Arts/Fine Arts-Literature component of the General Education Requirements.
109. Basic Musicianship I.
Cr. 3. A practical course in which basic musicianship is developed through sight singing, dictation and guided listening. The course is usually taken concurrently with MUS 163.
110. Basic Musicianship II.
Cr. 3. A continuation of MUS 109. Prerequisites: Test No. 1. Usually concurrent with MUS 164.
163. Music Theory I.
163. Music Theory I.
Cr. 3. A course in the fundamentals of music which includes the development of analytical and listening skills and deals with notation, elements of pitch and rhythm, harmonic organization, and part writing.

164. Music Theory II.
Cr. 3. A continuation of MUS 163 including the study of melodic organization, non-chord tones, diatonic seventh chords, secondary dominants, and modulation. Prerequisite: MUS163.

209. Basic Musicianship III.
Cr. 3. A continuation of MUS 110. Prerequisites: MUS 110 and passing the Keyboard Competency Test No. 2 as outlined in the Music Department Student Handbook. Usually concurrent with MUS 283.

210. Language Diction.
Cr. 1. A study of IPA (International Phonetic Alphabet) spellings, symbols, and sounds as applied to the English language. Prerequisite: MUS 210.

211. Foreign Language Diction and Dialects.
Cr. 2. Application of IPA to perform the principal singer's languages (Italian, French, and German) and actor's international dialects.

213. Basic Conducting.
Cr. 2. An introduction to conducting including a study of score reading, beat patterns, acoustics and interpretive principles. Prerequisite: MUS 164 or consent of the instructor.

231. Stringed Instructional Methods.
0+2, Cr. 1. Violin, viola, violoncello and contrabass are studied for the purpose of giving the student a fundamental playing and teaching knowledge of the instruments.

233. Woodwind Instructional Methods.
0+2, Cr. 1. Clarinet, saxophone, oboe, bassoon and flute are studied for the purpose of giving the student a fundamental playing and teaching knowledge of the instruments.

235. Brass Instructional Methods.
0+2, Cr. 1. Trumpet, French horn, trombone, baritone horn and tuba are studied for the purpose of giving the student a fundamental playing and teaching knowledge of the instruments.

236. Guitar Instructional Methods.
0+2, Cr. 1. Guitar is studied for the purpose of giving the student the basic playing skills necessary for the use of the guitar in classroom music teaching.

237. Percussion Instructional Methods.
0+2, Cr. 1. Percussion instruments are studied for the purpose of giving the student a fundamental playing and teaching knowledge of the instruments.

239. Voice Instructional Methods.
0+2, Cr. 1. This course is designed to give the student a fundamental technical and teaching knowledge of the voice as an instrument.

263. Music Theory III.
Cr. 3. A continuation of MUS 164 with special emphasis on the harmonic developments of the 19th century and an introduction to 20th century practices. Topics include binary and ternary forms, mode mixture, altered chords, enharmonic modulation, as well as melodic and harmonic materials of the 20th century. Prerequisite: MUS 164.

264. Music Theory IV.
Cr. 3. A course in which the skills of analysis, writing, and listening are developed in the study of 18th century counterpoint (melodic construction, two-voice writing, canon, invention, and fugue). Also included is a study of larger forms (sonata, variations, rondo, and twelve-tone techniques). Prerequisite: MUS 263.

Cr. 3. A study of materials, methods and techniques of general classroom music for the primary grades. This course is open only to elementary education majors and may not be counted toward a major or minor in Music.

310. Music in History.
Cr. 3. A study of music as a cultural expression in the history of Western civilization through the examination of the major stylistic traditions of musical art. This course may be used to fulfill the Fine Arts/Fine Arts-Literature component of the General Education Requirements.

312. Scoring and Arranging.
Cr. 2. The techniques of scoring for orchestra and band and of arranging music for choral performance. Through guided exercises and assigned readings, students learn how to prepare music written in one medium for use in another. Knowledge of vocal and instrumental capabilities is learned; skills in combining voices and instruments in various ensembles are practiced. Prerequisite: MUS 164.

313. Intermediate Conducting.
Cr. 2. A continuation of MUS 213. Includes rehearsal techniques, specific choral and instrumental conducting problems and ensemble conducting experience. Prerequisite: MUS 213.

317. History and Literature of Music I.
Cr. 3. The development of musical thought and literature to 1700. Prerequisites: MUS 110 and 263. This course may be used to fulfill the Fine Arts/Fine Arts-Literature component of the General Education Requirements.

318. History and Literature of Music II.
Cr. 3. The development of musical thought and literature from 1700 to 1880. Prerequisites: MUS 110 and 263. This course may be used to fulfill the Fine Arts/Fine Arts-Literature component of the General Education Requirements.

319. History and Literature of Music III.
Cr. 3. A study of music and musical thought from 1880 to the present. Prerequisites: MUS 110 and 263. This course may be used to fulfill the Fine Arts/Fine Arts-Literature component of the General Education Requirements.

375. Music Enterprises.
Cr. 3. The major objective of this course is to acquaint the student with basic information for successful music merchandising and to help the student understand the place of music in our contemporary society. Field trips are a vital component of this course. Areas and principles to be covered include retailing, publishing, manufacturing, performing and recording and managing musical enterprises.

389. School Music I.
Cr. 3. A course designed to deal with materials, procedures, organization, administration and musical growth and development of children in elementary and junior high/middle schools. Prerequisite: MUS 164.

390. Topics in Music.
Cr. 3. Specific topics based on interests of students and faculty. Topics may vary from one semester to another. May be repeated for credit if topics are different. Prerequisite: Junior standing.

404. Recital.

413/513. Advanced Conducting, Choral/Instrumental.
Cr. 2. A study of instrumental and choral scores, conducting techniques and materials. Prerequisite: Music 313 or the equivalent.

414/514. Advanced Conducting, Choral/Instrumental.
Cr. 2. A continuation of Music 413/513.

415/515. Liturgical Organ Playing.
Cr. 2. A practical course in playing hymns and chants, accompanying, realization of figured bass, score reading and improvising in small forms. The historic and current roles of the organ in the liturgy are discussed. Prerequisites: three years of organ study and Music 164, or permission of the instructor. Offered in alternate years.

421/521. Pro-Seminar in Music.
Cr. 2-3. An intensive study of a limited area in the history or theory of music. This course may be repeated for credit. Prerequisite: consent of the Chair of the Department. Offered in alternate years.

423/523. Pro-Seminar in the Pedagogy of Music.
Cr. 2. A consideration of the problems of teaching basic musicianship at all levels. Special attention is given to the adaptation of basic principles to the media of most interest to the members of the pro-seminar. Prerequisite: consent of the Chair of the Department.

432/532. Workshop in Music Education.
Cr. 1-2. A study of current topics in music education in summer workshop sessions of one or two weeks.

Cr. 1. A survey of pedagogical materials and methodology of the student's performance area. Students will be required to observe lessons and do practice teaching during the semester. Must be taken concurrently with Music 453.

463/563. Twentieth Century Techniques.
Cr. 3. In this course, impressionism, neoclassicism, nonserial atonality, serialism, innovations in timbre and texture, electronic music, aleatoric music, and minimalism are investigated. Musical works of Debussy, Stravinsky, Hindemith, Bartok, Britten, Schoenberg, Webern, Penderecki, Crumb, and Riley are studied, with particular attention to compositional technique and style. Prerequisite: Music 264.

Cr. 3. In this course 16th century counterpoint is studied through the writing of music based on stylistic models and through analysis of representative works of the period. Also included in the course is an introduction to Schenkerian analysis. Prerequisite: Music 264.

Cr. 4. An intensive academic study of the history, philosophies, and practices of music in Christian churches with an emphasis on the Lutheran heritage. Readings from the standard scholarly texts in the field and from current professional publications, discussed in a seminar format. Topics include theologies of music, hymnody, music in worship, church music organizations and sacred music repertoire. Open to upper division and graduate music majors; non-majors may be admitted by permission of the instructor.

486. Internship.
Cr. 3. Controlled, on-the-job experience with participating businesses for senior music students. May be taken during the regular term with part-time employment of 18 to 20 hours weekly or during the summer session with 36 to 40 hours per week. Term project required. Applications should be made early in the semester preceding registration for this course. The application is reviewed on the basis of the student's academic standing, faculty recommendations, professional progress and demonstrated interest. May not be repeated for credit. S/U option may be elected. Prerequisite: Music 375.
Music majors are accepted into the music program following an audition and are placed at an appropriate level as specified by the guidelines of their chosen degree program. Other students will be placed at an appropriate level through consultation with the Chair of the Department.

Voice: Flute, Oboe, Clarinet, Harpsichord (by audition only), Harpsichord, Piano, Organ (by audition only), Organ Improvisation (by audition only)

Institution: in one of the major ensembles gives one credit hour. Instruction in one of the minor ensembles gives 0.5 credit hour. If a student has earned eight credit hours in ensemble music, any additional enrollments are graded on the credit basis. The following are considered major ensembles: University Singers, Valparaiso University Chorale, Kantorei, Concert Band, Jazz Band, Chamber Orchestra. All other ensembles listed here are considered minor ensembles. All ensemble courses are available for graduate credit at the 500 level. Enrollment at the 500 level is limited to students who have specialized training and background to participate in the ensemble in some capacity (such as assistant conductor, section leader or project director) to be determined by the instructor of the ensemble and with the approval of the Chair of the Department.

Note: Non-music majors may apply no more than four credit hours of ensemble music toward a degree in the College of Arts and Sciences.

PERFORMANCE

Note: Non-music majors who are candidates for degrees in the College of Arts and Sciences are restricted to a maximum of 16 credit hours in performance, including no more than four credit hours in ensemble music, which may apply toward degree requirements.

A. Studio Instruction. See page 211 for appropriate fees.

Cr. 1-3. A four-year undergraduate and graduate program of studio instruction is offered to students of Valparaiso University in piano, organ, harpsichord, orchestral and band instruments, voice, guitar, and composition. The choice and use of materials are determined by the instructor in each area following guidelines which appear in the Department of Music Handbook for Music Students. Studio instruction is available to all students of the University including the Evening Division. All students may register for 1 credit hour. Bachelor of Music Education and Bachelor of Music majors may register for 2 credit hours in their principal performance medium. Only Bachelor of Music majors may register for 3 credit hours in their principal performance medium. Studio instruction for music majors is supplemented with a required performance colloquium which meets for one 50-minute period per week (MUS 499, 0 cr); non-majors enrolled in studio instruction are welcome to participate in the colloquium and are urged to do so.

Students will register for one of the following levels in their studio instruction medium: MUS 003, 103, 203, 303, 403, 453, 503, 603. Students with no prior or minimal study should register for MUS 003.

Music majors in each area of study toward degree requirements.

Students are graded on the credit basis. The following are determined by the instructor (MUS 499, 0 cr); non-majors welcome admission to supervised teaching.

B. Ensemble Music Instruction.

Institution: in one of the major ensembles gives one credit hour. Instruction in one of the minor ensembles gives 0.5 credit hour. If a student has earned eight credit hours in ensemble music, any additional enrollments are graded on the credit basis. The following are considered major ensembles: University Singers, Valparaiso University Chorale, Kantorei, Concert Band, Jazz Band, Chamber Orchestra. All other ensembles listed here are considered minor ensembles. All ensemble courses are available for graduate credit at the 500 level. Enrollment at the 500 level is limited to students who have specialized training and background to participate in the ensemble in some capacity (such as assistant conductor, section leader or project director) to be determined by the instructor of the ensemble and with the approval of the Chair of the Department.

Note: Non-music majors may apply no more than four credit hours of ensemble music toward a degree in the College of Arts and Sciences.

Cr. 3. A study of music materials, procedures, organization, administration and musical growth and development of students in junior high, middle and high schools. Includes introduction of philosophical foundations, principles and literature of the music education profession. Prerequisite: MUS 389 and admission to supervised teaching.

495. Independent Study in Music.

Cr. 1-3. A course of study arranged by the student with the consent of and under the supervision of a faculty adviser. The study results in a written essay on a topic approved by the adviser. Prerequisites: MUS 264 and 318.

497. Honors Work in Music.

Cr. 3. See Honors Work, page 48.

498. Honors Candidacy in Music.

Cr. 3. See Honors Work, page 48.

499. Music Colloquium.

Cr. 0. All music majors will register for this course each semester in residence. S/U grade.
Cr. 3. A philosophical introduction to moral issues which confront us in everyday life. When should the concerns of others inhibit my personal freedom? How much should I care about others? What are my responsibilities to myself? my family? the hungry of the world? What sort of person should I be? The course emphasizes the importance of being reflective about how to live one’s life.

150. Logic and Critical Thinking.
Cr. 3. An introduction to different strategies for constructing and evaluating arguments. Emphasis is placed on the development of skills needed to deal competently with arguments encountered in everyday life as well as on some of the more formal techniques of logical analysis.

215. Ancient and Medieval Philosophy.
Cr. 3. An introduction to great philosophers and themes of the ancient and medieval world. Emphasis will be placed upon Plato and Aristotle, Augustine and Thomas Aquinas. Primary documents are read throughout.

225. Early Modern Philosophy.
Cr. 3. An introduction to major thinkers and themes of seventeenth and eighteenth century Europe: Descartes, Leibniz, Hobbes, Locke, and Hume. Emphasis will be placed upon the Rationalist and Empiricist traditions and their synthesis in Kant. Primary documents are read throughout.

250. Political Philosophy.
Cr. 3. (Also offered as POLS 250.) A survey of the major formulations and problems of Western political thought as developed by political philosophers from the Greeks through the modern era. Prerequisite: sophomore standing.

260. Non-Western Philosophy.
Cr. 3. An introduction to some major philosophical themes in non-Western thought. Emphasis is upon the analysis of primary texts. Prerequisite: sophomore standing. This course fulfills the Global Cultures and Perspectives component of the General Education Requirements.

270. Environmental Philosophy and Ethics.
Cr. 3. A survey of major conceptions of the relationship between humanity and the environment and the kinds of beliefs, attitudes, and actions entailed by those conceptions. Topics may include conservationism, deep ecology, bioregionalism, political ecology, and creation spirituality.

290. Philosophical Topics.
Cr. 3. A study of a focused philosophical theme or issue. This course may be repeated for credit if the topics are different.

305. Philosophy of Art.
Cr. 3. A study of theories of art and aesthetic experience. Readings from classical and contemporary sources. Reference is made to works of art accessible to the student through field trips, slides, performances and recordings. This course may be used to fulfill the Fine Arts/Fine Arts-Literature component of the General Education Requirements.

320. Philosophy of Science.
Cr. 3. A philosophical approach to the language, practices, and goals of the physical sciences. Special attention is given to the concepts, methods, and theories of the physical and biological sciences, leading toward an interpretation of science.

330. Philosophy of Religion.
Cr. 3. A philosophical analysis of some of the beliefs, concepts, and problems involved in traditional theistic belief and its critics. Problems include arguments for the existence of God, religious experience, the problem of evil, and faith and reason. Course prerequisite can be satisfied by any Level II Theology course instead of a philosophy course.

341. Biomedical Ethics.
Cr. 3. (May also be offered as THEO 341.) A study of moral issues raised in health care and biological research (e.g., abortion, euthanasia, genetic engineering, and resource allocation). Attention is given to both ethical theory and to practical issues. Course prerequisite can be satisfied by any Level II Theology course instead of a philosophy course.

345. Advanced Logic.
Cr. 3. A study of formal deductive logic as codified in first-order predicate logic, including the concepts of proof, consistency, and completeness, and topics in logical theory and the foundations of mathematics. The relationship between formal logic and rational inquiry is also explored. Prerequisite: PHIL 150 or its equivalent.

355. Problems in Political Philosophy.
(May also be offered as POLS 355.) Cr. 3. The study of one or more specific problems or philosophers in political philosophy. Prerequisites: PHIL 250 or POLS 250 or the consent of the instructor.

360. Existentialism and Contemporary Continental Philosophy.
Cr. 3. A study of the problems and trends that have shaped present-day European philosophy. Major figures include Husserl, Heidegger, Sartre, Merleau-Ponty, and Foucault. Primary documents are read throughout. Prerequisite: PHIL 225 or the consent of the instructor.

Cr. 3. A sampling of representative contemporary British and American figures in the analytic tradition of philosophy, such as Moore, Russell, Wittgenstein, Ayer, Strawson, Quine, Davidson, and Putnam. Primary documents are read throughout. Prerequisite: PHIL 225 or the consent of the instructor.

390/490. Advanced Topical Seminar.
Cr. 3. An examination of the work of one major philosopher, such as Hume, Kant, or Kierkegaard or of a single philosophical approach such as positivism, Augustinianism, or phenomenology. This course may be repeated for credit if the topics are different.

405. Ethical Theory.
Cr. 3. A study of some significant ethical theories and issues. Emphasis is on issues concerning the nature of moral discourse and practice: the existence of objective moral values, the relation of religion and morality, the possibility of moral knowledge, the place of reason and convention in moral discourse and practice.

410. Theory of Knowledge.
Cr. 3. An examination of selected topics which illustrate dominant themes of traditional and contemporary theories of knowledge, such as skepticism, perception, evidence, verifiability, memory, belief, justification, and truth.

420. Metaphysics.
Cr. 3. An examination of traditional and contemporary metaphysical topics, such as time, substance, agency, freedom, appearance and reality, persons, the mind-body problem.

495. Independent Projects.
Cr. 1-3. A student may undertake independent study of some person, problem, theme, etc., under the supervision of some member of the Philosophy Department. The student will propose a topic, generate a bibliography and specify the scope and goals of the study.

497. Honors Work in Philosophy.
Cr. 3. See Honors Work, page 48.

498. Honors Candidacy in Philosophy.
Cr. 3. See Honors Work, page 48.
Physical Education

Professor Steinbrecher; Associate Professor Steiger (Chair); Assistant Professor Smith; Part-Time Assistant Professor Criswell; Part-Time Instructors Carl, Daugherty, R. Moore, Seibert.

The Physical Education Department seeks to provide students with knowledge and skills designed to enhance the quality of campus life as well as to provide them with suitable basic experiences for life-long personal use. Although physical education within a school setting is a continuing area of professional opportunity, personal physical activity and enjoyment of spectator sports has created new areas of opportunity for the physical educator: adult fitness, leisure services, athletic training, sports writing and broadcasting, and sports management. Students can select courses from the departmental curriculum to reflect these new areas.

Major. A minimum of 28 credit hours in physical education constitutes a major. Courses must include PE 150, 190, 230, 235, 240, 350, 370, 410, and 440. In addition, students must complete BIO 151, 152, and 205, CHEM 111, and PSY 110.

Minor. A minimum of 18 credit hours in physical education constitutes a minor. Courses must include PE 150, 190, 230, and 370.

Teaching Programs. Students who plan to teach physical education in elementary or secondary schools with a major or minor in Physical Education should consult the Chair of the Department and the Education Department for specific requirements.

Athletic Training Concentration. A minimum of 42 credit hours in physical education and athletic training is required. Courses must include PE 150, 190, 230, 235, 310, 335, 340, 355, 360, 370, 410, 435, 440, 455, and 486 (3 credit hours). In addition, students must complete BIO 151, 152, and 205, CHEM 111, and PSY 110. Completion of this concentration plus 1500 hours of athletic training experience should qualify a student to take the NATA Certification Examination.

Sports Management Concentration. A minimum of 30 credit hours in physical education is required. Courses must include PE 150, 220, 233, 240, 310, 320, 333, 343, 410, 473, 486 (3 credit hours). Either the Senior Project or the Internship must be an off-campus experience. In addition, student must complete Comm 101 and 265, and the 21-credit Liberal Arts Business Minor.

Degree. Completion of the degree requirements of the College of Arts and Sciences with a major in physical education leads to the Bachelor of Science in Physical Education degree. The Athletic Training concentration and Sports Management concentration are noted on a student's transcript as Physical Education: Athletic Training or Physical Education: Sports Management.

Approval of Schedules. All students pursuing a major or minor in the Department, and all students who plan to achieve certification in the teaching of physical education must have their schedules approved by the Chair of the Department or a departmental adviser before each registration period.

Basic Courses in Physical Education. All students must take one credit hour of Fitness Principles and Activities courses PE 101-105. Each section meets twice a week for fourteen weeks. Anyone who has served in the Armed Forces for at least one year is exempted from this requirement, except a National Guard member. No more than four credit hours earned in PE 101-149 may be counted toward any degree.

101. Individual Exercise. 0+2, Cr. 1. Principles and physiology of physical fitness with topics such as resistance exercise training, nutrition and aerobic conditioning. A personalized exercise program is developed.

102. Aerobic Dance. 0+2, Cr. 1. Principles and physiology of physical fitness is included in conjunction with the physical activities involved in an aerobic dance program.

103. Aerobic Run. 0+2, Cr. 1. Principles and physiology of physical fitness is included in conjunction with the physical activities involved in an aerobic run program.

104. Aerobic Swim. 0+2, Cr. 1. Principles and physiology of physical fitness is included in conjunction with the physical activities involved in an aerobic swim program.

105. Weight Training. 0+2, Cr. 1. Principles and physiology of physical fitness is included in conjunction with the physical activities involved in a weight training program.

106-149. Elective Activities. 0+1, Cr. 0.5. Individual, dual, team, indoor and outdoor activities are presented in various combinations. A specific activity may not be repeated for credit. Each course meets twice a week for seven weeks. SU graded only.

150. Introduction to Physical Education. Cr. 1. Seven weeks course. An introductory course for students interested in physical education. The course provides an opportunity for students to explore physical education: teacher education, athletic training, or sports management as fields of study.

160. Advanced Lifesaving/Lifeguarding. 1+2, Cr. 2. Analysis and practice of skills in swimming and lifesaving which lead to an American Red Cross Advanced Lifesaving Certificate (2 Cr.). Analysis and practice of skills in swimming, lifesaving and lifeguarding which lead to an American Red Cross Lifeguard Certificate (2 Cr.: Minis or Summer Session only). Prerequisite: Intermediate Swim, instructor's approval.

170. Water Safety Instruction. 1+2, Cr. 2. A study of the techniques for teaching swimming and lifesaving. This course leads to an American Red Cross Water Safety Instructor's Certificate. Additional hours may be announced. Prerequisite: PE 160 or approval of instructor.

180. Officiating in Sports. Cr. 1. May be offered as a seven weeks course. A study of the general principles and techniques involved in officiating interscholastic sports. May lead to state certification when appropriate. Because the course is divided into one-credit sections each dealing with a specific sport, no section may be repeated for credit.

190. First Aid, Health and Safety. Cr. 2. Seven weeks course. A study of the prevention and emergency care of sudden illness and injury, which leads to American Red Cross Certification in Advanced First Aid and Community CPR.

220. Coaching Theory. Cr. 1-2. Seven weeks course. A study of the methods and principles of coaching interscholastic and intercollegiate sports. Because the course is divided into sections, each dealing with a specific sport, no section may be repeated for credit.


233. Theory and Principles of Sports Management. Cr. 3. This is the foundations course for the Sports Management concentration. The course includes a study of the sports enterprise and the management function within these settings. Students are exposed to basic organizational and problem-solving techniques.

235. Prevention and Care of Athletic Injuries. 2+2, Cr. 3. An investigation of principles pertaining to the prevention and care of athletic injuries. Prerequisite: approval of the instructor.

240. Philosophical, Historical and Organizational Perspectives in Physical Education. Cr. 3. A study of the philosophical, historical, organizational and administrative aspects of physical education.

250. Dance Patterns and Forms. 2+2, Cr. 3. A study of dance with emphasis on modern, folk, and square dance forms as well as teaching techniques.

260. Gymnastics. 1+2, Cr. 2. This course consists of methods and teaching cues of apparatus and tumbling techniques. May meet three times a week.

270. The Learning Potentials of the Out-of-Doors. 1+2, Cr. 2. Seven weeks course. An experience of learning opportunities as provided by camping and outdoor education, including outdoor educational activities. Field trips are required as part of the laboratory experience.

290. Special Topics in Recreation and Leisure Studies. Cr. 1-3. An open topic course which may investigate various topics pertaining to recreational and leisure programs (e.g., organization of intramural programs, adult fitness, outdoor recreation program management, pool management, SCUBA).

310. Psychology of Sport. Cr. 3. A study of the competitive sports experience, with emphasis on the multidimensional factors involved in the psychology of sport. Prerequisite: PSY 110.

320. Sport and Society. Cr. 3. A study of the role of sports in society and the effects of culture and society on sports.

330. Management and Development of Facilities. Cr. 3. The course explores planning, developing, and managing sports facilities. Students examine existing facilities and plan for the development and management of new sports facilities. Prerequisite: PE 233 or approval of the Chair of the Department.
335. Advanced Athletic Training.
Cr. 3. An investigation and application of advanced athletic training, emphasizing the prevention and evaluation of athletic injuries. Field trip to a sports medicine/physical therapy clinic. An additional 5-10 hours per week will be required in the Athletic Training facility. Prerequisite: PE 235 and approval of the instructor.

340. Physiology of Exercise.
2+2, Cr. 3. An investigation of the physiological response of the human body to exercise and training, with laboratory experience. Prerequisite: BI0 152.

Cr. 3. An in-depth study of techniques used in the evaluation of athletic injuries. An additional 5-10 hours per week will be required in the Athletic Training facility. Prerequisite: PE 235 and 335, junior standing or approval of the instructor.

498. Honors Candidacy in Physical Education.
Cr. 3. See Honors Work, page 48.

497. Honors Work in Physical Education.
Cr. 3. See Honors Work, page 48.

486. Internship in Physical Education or Athletics.
Cr. 1-3. An opportunity for students to gain practical experience under careful supervision by working in university programs or offices, public agencies or businesses, sport clubs, sports medicine clinics, community or adult fitness programs, high schools, media and communications, programs for the elderly, athletic administration, intramural and facility management or other appropriate work experiences. Objectives, evaluations and procedures for the conduct of the course are jointly planned by the student, the Chair of the Department and the program supervisor. This course may be repeated for a maximum of six credit hours. Prerequisites: senior standing, approval of the instructor and consent of the Chair of the Department.

489. The Teaching of Physical Education.
Cr. 3. See ED 480. A study of the methods of teaching physical education in the elementary and secondary schools. This course may not be counted towards a major or minor in Physical Education. Prerequisite: admission to Supervised Teaching.

495. Honors Independent Group Study.
Cr. 1-3. A personal investigation of a research-oriented concern pertinent to physical education. This course may be repeated for a maximum of six credit hours. Prerequisite: approval of the instructor and consent of the Chair of the Department.

440. Administration of Athletic Training Programs.
Cr. 2. An in-depth study of various problems, issues and responsibilities affecting the athletic training in their role as administrators. Prerequisite: PE 235 and 335, junior standing or approval of the instructor.

473. Sports Management Senior Project.
Cr. 3. A personal investigation of a specific area in the field of Sports Management. Students utilize research techniques common to the field and culminate the experience with a written report. Prerequisites: senior standing and approval of the Chair of the Department.

486. Internship in Physical Education or Athletics.
Cr. 1-3. An opportunity for students to gain practical experience under careful supervision by working in university programs or offices, public agencies or businesses, sport clubs, sports medicine clinics, community or adult fitness programs, high schools, media and communications, programs for the elderly, athletic administration, intramural and facility management or other appropriate work experiences. Objectives, evaluations and procedures for the conduct of the course are jointly planned by the student, the Chair of the Department and the program supervisor. This course may be repeated for a maximum of six credit hours. Prerequisites: senior standing, approval of the instructor and consent of the Chair of the Department.

489. The Teaching of Physical Education.
Cr. 3. See ED 480. A study of the methods of teaching physical education in the elementary and secondary schools. This course may not be counted towards a major or minor in Physical Education. Prerequisite: admission to Supervised Teaching.

495. Honors Independent Group Study.
Cr. 1-3. A personal investigation of a research-oriented concern pertinent to physical education. This course may be repeated for a maximum of six credit hours. Prerequisite: approval of the instructor and consent of the Chair of the Department.

473. Sports Management Senior Project.
Cr. 3. A personal investigation of a specific area in the field of Sports Management. Students utilize research techniques common to the field and culminate the experience with a written report. Prerequisites: senior standing and approval of the Chair of the Department.

486. Internship in Physical Education or Athletics.
Cr. 1-3. An opportunity for students to gain practical experience under careful supervision by working in university programs or offices, public agencies or businesses, sport clubs, sports medicine clinics, community or adult fitness programs, high schools, media and communications, programs for the elderly, athletic administration, intramural and facility management or other appropriate work experiences. Objectives, evaluations and procedures for the conduct of the course are jointly planned by the student, the Chair of the Department and the program supervisor. This course may be repeated for a maximum of six credit hours. Prerequisites: senior standing, approval of the instructor and consent of the Chair of the Department.

489. The Teaching of Physical Education.
Cr. 3. See ED 480. A study of the methods of teaching physical education in the elementary and secondary schools. This course may not be counted towards a major or minor in Physical Education. Prerequisite: admission to Supervised Teaching.

495. Honors Independent Group Study.
Cr. 1-3. A personal investigation of a research-oriented concern pertinent to physical education. This course may be repeated for a maximum of six credit hours. Prerequisite: approval of the instructor and consent of the Chair of the Department.

473. Sports Management Senior Project.
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489. The Teaching of Physical Education.
Cr. 3. See ED 480. A study of the methods of teaching physical education in the elementary and secondary schools. This course may not be counted towards a major or minor in Physical Education. Prerequisite: admission to Supervised Teaching.

495. Honors Independent Group Study.
Cr. 1-3. A personal investigation of a research-oriented concern pertinent to physical education. This course may be repeated for a maximum of six credit hours. Prerequisite: approval of the instructor and consent of the Chair of the Department.

Physics and Astronomy

Professors Hrivnak, Koetke (Chair), Manweiler; Associate Professor Zygmunt; Assistant Professors Stanislaus, Vogler (Visiting).

Physics is the study of natural phenomena in an attempt to explain the interactions of matter and energy in terms of a limited number of fundamental laws. This study is predicated on careful observation and experimentation, thoughtful analysis, and creative insights. It is both descriptive and prescriptive and encompasses a realm from the submicroscopic particles of the atomic nucleus to the distant constituents of the universe.

In this context, the Physics and Astronomy Department offers a program of study to prepare students for graduate study and for entry-level work as a physicist in government or industry. Fields of study and employment include, but are not limited to, atomic physics, nuclear physics, elementary particle physics, molecular physics, condensed matter physics, quantum electronics, laser optics, astronomy, astrophysics, geophysics, biophysics, medical physics, computational physics, electrical engineering, nuclear engineering, scientific writing and reporting, high school physics teaching, criminology, patent law, and scientific equipment sales.

The Department is well equipped, having a subcritical nuclear reactor, a particle accelerator, an astronomical observatory, and extensive computer resources. Students pursue research projects under the direction of members of the faculty.

The Department sponsors a local chapter of the national Society of Physics Students. Qualified students are selected to membership in the national honor society, Sigma Pi Sigma. Qualified students may obtain cooperative education experiences in a variety of employment situations, including research laboratories and industrial and engineering companies. Up to four credits may be counted towards the minimum 26 credit hours needed for a physics major. With departmental approval, PHYS 481-483 or 497 may be substituted for PHYS 445. For further information, refer to Cooperative Education, College of Arts and Sciences, page 49.

Major: A minimum of 28 credit hours in physics and astronomy (32 credits for a Bachelor of Science degree) constitutes a major. Courses must include the core courses PHYS 243, 245, 250, 281, 310, 345, 371, 445 and 499.

Four concentrations within the physics major have been designed to meet students' educational and career goals. The departmental adviser will assist students in selecting the most appropriate physics major emphasis and the courses which apply within the emphasis. One year of chemistry is strongly recommended. It is assumed that students majoring in physics will acquire competency in computer programming (FORTRAN). Courses in astronomy may be taken as electives.

The Fundamental Physics Concentration is intended for students primarily interested in pursuing a career in physics and who may anticipate graduate study in physics. In addition to the core courses, the following courses may be used to complete the major: PHYS 360, 372, 381, 421, 422, 430, 440, as well as MATH 430.

The Astronomy and Space Science Concentration is intended for students interested in careers in astronomy and related fields and who might pursue graduate studies in astronomy or space science. In addition to the core courses, the following courses may be used to complete the major: ASTR 221, 222, 390, and 445, the latter substituted for PHYS 445.

The High School Physics Teaching Concentration is intended for students planning to teach physics at the secondary school level. This emphasis combines the physics major with education courses and professional field experience, and includes PHYS 489. See the description of the Secondary Education program on pages 71-72 for further details.

The Applied Physics Concentration is intended for students interested in the application of physics to problems in a business or industrial environment. In addition to the core courses, students are advised to complete the major by electing courses most closely associated with the physics application intended. Participation in the University's Cooperative Education program (see page 49) is strongly recommended to give the student practical work experience. The Applied Physics option is most useful to students who will seek
employment immediately after graduation. Mechanics and Materials—for careers in research and development fields involving mechanics and materials science. In addition to the major, students are encouraged to complete the Mechanics and Materials minor described below.

Electronics—for careers in research and development fields involving electronic devices. In addition to the major, students are encouraged to complete the Electronics minor described below.

Computational Physics—for computer-related applications of physics and computational problem solving. In addition to the major, students are encouraged to complete the Computer Science minor (page 110).

Industrial Project Management—for management and project leadership in technological and scientific environments in business and industry. In addition to the major, students are encouraged to complete the Liberal Arts Business Minor (Page 191).

Physics Minor. A minimum of 16 credit hours which must include PHYS 109, 252, and 440. Other courses should be selected from PHYS 215, 333, ME 272 and 682.

Electronics Minor. A minimum of 16 credit hours which must include PHYS 281, 261L, 340L, and 372. Other courses should be selected from PHYS 420, ECE 221, 223, 262, 213, and 341.

Degrees. Completion of the degree requirements of the College of Arts and Sciences with a major in physics leads to the Bachelor of Arts degree or the Bachelor of Science degree.

Credit by Examination. Credit for PHYS 111, 112, 141, or 142 may be earned through the Advanced Placement examinations offered by the College Entrance Examination Board.

Approval of Schedules. All students taking a major or minor in physics and all students planning to teach physics must have their schedules approved by the department adviser.

ASTRONOMY

101. Astronomy.

3+0, Cr. 3. A study of the history of man's view of the universe including our contemporary understanding of the physical universe. The tools and techniques employed by contemporary astronomers to probe the universe are studied. Topics include the structure of the solar system as revealed by modern space probes, the sun, stellar systems and classification, and the structure and evolution of stars, galaxies and the universe. Special topics such as neutron stars, black holes, and the big bang model may also be examined. Only elementary mathematics is required. This course, along with ASTR 101L, may be used to fulfill the Natural Science component of the General Education Requirements. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination.

101L. Astronomy Laboratory.

0+3, Cr. 1. Laboratory experiences designed to give students personal experience with astronomical equipment, including the astronomical observatory, and with the analysis of astronomical data. Techniques and skills appropriate to physical sciences will also be stressed. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination. Prerequisite or concurrent registration: ASTR 101 or 252.

221. Observational Astronomy.

0+3, Cr. 1. Practical observational experience using the 16 inch reflecting telescope and other instrumentation including photographic cameras, photoelectric photometer, spectograph, and CCD camera and computer. Prerequisite: ASTR 101 and 101L or 252 or consent of the instructor.

252. Introduction to Astrophysics.

0+3, Cr. 3. A study of modern astronomy and the physical principles involved. Topics to be studied are similar to those in ASTR 101. Problems illustrating the quantitative nature of modern astronomy will be solved. This course along with ASTR 101L may be used to fulfill the Natural Science component of the General Education Requirements. Prerequisite or concurrent registration: MATH 131 or 151. Not open to students who have taken ASTR 101.

390. Topics in Astronomy.

Cr. 1-4. The study of various topics of current interest in astronomy and space science. Prerequisites are dependent on the topic. Interested students are urged to consult the instructor or the Department Chair for specific information.


0+3, Cr. 1-2. This course is identical to PHYS 445 but with a specific focus on an experimental problem in astronomy. See PHYS 445 for details. Prerequisites: ASTR 221 and 252.

492. Research or Reading in Astronomy.

Cr. 1-3. Research or reading in astronomy, under the supervision of a faculty member. Prerequisite: consent of the Chair of the Department.

111L. Essentials of Physics Laboratory.

0+3, Cr. 1. Laboratory experiments test and illustrate fundamental physics concepts and laws closely related to those studied in PHYS 111. Emphasis is placed on experiential learning and on the development of laboratory skills in physical science. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement examination. Prerequisite or concurrent registration: PHYS 111. Not open to students who have taken PHYS 141L.

112. Essentials of Physics.

3+0, Cr. 3. This course is a continuation of PHYS 111. Specific topics include the study of electricity and magnetism, wave phenomena, optics, relativity, atomic and nuclear physics. Not open to students who have taken PHYS 142. Prerequisites: PHYS 111 and 111L or consent of the instructor. This course along with PHYS 112L may be used in fulfillment of the Natural Science component of the General Education Requirements.

120. Musical Acoustics.

3+0, Cr. 4. A study of the physical nature of sound waves, the production and measurement of sound and the physical and psychophysical basis of hearing and music. Although this course is of general interest, it is also suitable for music or other arts majors in fulfillment of the Natural Science component of the General Education Requirements.


3+0, Cr. 3. A study of classical mechanics, including static and dynamic systems, and of thermal physics for students of physics, engineering, and chemistry and for students in pre-medical arts programs. Applications of calculus are made as appropriate. Not open to students who have taken PHYS 111. This course along with PHYS 141L may be used in fulfillment of the Natural Science component of the General Education Requirements. Prerequisite or concurrent registration: MATH 131 or 151.

141L. Experimental Physics I.

0+3, Cr. 1. Laboratory experiments test and illustrate fundamental physics concepts and laws closely related to those studied in PHYS 141. Emphasis is on the development of laboratory skills in physics. Prerequisite or concurrent registration: PHYS 141. Not open to students who have taken PHYS 111L.

142. Principles of Physics: Electricity, Magnetism and Waves.

3+0, Cr. 3. A continuation of PHYS 141 which treats electricity, magnetism, wave motion and optics. Prerequisites: PHYS 111 and 141L or advanced placement by permission of the Chair of the Department. Not open to students who have taken PHYS 112. This course along with PHYS 142L may be used in fulfillment of the Natural Science component of the General Education Requirements.

142L. Experimental Physics II.

0+3, Cr. 1. Laboratory experiments test and illustrate fundamental physics concepts and laws closely related to those studied in PHYS 142. Emphasis is placed on the development of laboratory skills in physics. Prerequisite or concurrent registration: PHYS 142L. Not open to students who have taken PHYS 112L.


Cr. 3. (Also offered as CE 215.) Concepts of stress and strain, stress-strain relationships, states of plane stress and strain at a point; elementary analysis of stress distributions and deformations for axial loading of prismatic members, torsional loading of circular shafts and bending of beams, combined loading; plastic elastic action, and an introduction to statically indeterminate problems. Prerequisite: MATH 132 and PHYS 109.

223. Waves and Particles.

Cr. 4. An introduction to waves and modern physics. Topics include oscillations, waves, sound, light (geometrical and physical optical), relativity, quantum mechanics, atomic and subatomic physics, nuclear physics, elementary particles.


Cr. 3. An introduction to the special theory of relativity, physics of the atom, the Schrödinger wave equation, physics of condensed matter, physics of the nucleus including radioactivity, and elementary particles. Prerequisites: PHYS 142 and MATH 152 (may be taken concurrently).
245. Experimental Physics III. 0+3, Cr. 1. Selected experiments include both the measurement of fundamental constants such as the speed of light, Planck's constant, the gravitational coupling constant, as well as investigations of fundamental physical processes. The further development of laboratory skills and methods of data analysis are emphasized, using advanced computer analysis and data acquisition techniques. Prerequisite: PHYS 142 and 142L. Normally offered in spring semesters.

250. Mechanics. Cr. 3. The classical mechanics of particles, systems of particles and rigid bodies, utilizing analytical techniques of vectors and differential and integral calculus. Among the topics included are Newton's laws of motion in one and three dimensions, conservation laws, harmonic oscillation, central force motion, scattering and an introduction to rigid body motion. Prerequisites: PHYS 142 and MATH 233 or 253 (may be taken concurrently).

252. Materials Science. 2+3, Cr. 3. (Also offered as ME 252.) A study of structure-property-processing relationships of engineering materials related to their selection in design and manufacturing processes. Based on an understanding of atomic and crystal structure, the methods of controlling structure and mechanical properties of materials are studied with an emphasis on strengthening mechanisms. Processes studied include solidification, phase transformation, and mechanical working of metals. A field trip to an industrial facility is arranged. Prerequisite: MATH 132 or 152.

261. Linear Circuit Theory. Cr. 3. (Also offered as ECE 261.) A study of the fundamental methods and theorems of electric circuit analysis with emphasis on analytical and computer-aided methods. AC and DC analysis, transient and complete response. Instantaneous and average power. Prerequisites: MATH 131 or 151; PHYS 142.

261L. Electrical and Computer Laboratory I. 0+3, Cr. 1. (Also offered as ECE 262.) An introduction to basic instrumentation and measurement in the investigation of electrical circuits. Technical writing and presentations are required. Corequisite: PHYS 261.

281. Electricity and Electronics. 2+1-1.5, Cr. 3. (Also offered as ECE 281.) A study of the fundamental methods of electric circuit analysis with emphasis on computer-aided analysis. AC and DC circuits, operational amplifiers. Laboratory exercises emphasize measurement techniques and reinforce lecture material. Prerequisite: PHYS 142 and 142L.

310. Data Reduction and Error Analysis. Cr. 1. The study and application of various techniques employed in the reduction and analysis of laboratory data to include probability distributions, regressions, tests of goodness of fit, data smoothing and the methods for determining the errors of measurements and fitted parameters. Extensive use of the computer is expected. Students are required to program in FORTRAN. Prerequisite: MATH 253; corequisite: PHYS 245.

333. Mechanical Measurements Laboratory. 3+3, Cr. 4. (Also offered as ME 333.) A study of fundamental concepts and physical principles involved in the science of measurement. Experiments involve calibration and testing (both static and dynamic) of primary elements, signal amplifiers, transducers and readout devices. Experimentation utilizes laboratory and industrial instruments. Extensive use is made of computer data acquisition and spreadsheets. Prerequisites: PHYS 142 and ENGL 100.

340. Electronics. Cr. 3. (Also offered as ECE 340.) An introduction to semiconductor theory and the application of diodes, transistors and integrated circuits in the design of amplifiers and multiple transistor circuits. Prerequisite: PHYS 261.

340L. Electrical and Computer Laboratory III. 0+3, Cr. 1. (Also offered as ECE 310.) The study of analog and digital signal processing circuits emphasizing measurement techniques. Prerequisite: ECE 213; corequisite: PHYS 340.

345. Experimental Physics IV. 0+3, Cr. 1. Experiments in radiation detection and analysis using modern modular electronics. Prerequisites: PHYS 243, 245, and 310 and MATH 233 or 253.

360. Thermal Physics. Cr. 3. A study of the basic principles of thermodynamics, kinetic theory and elementary statistical mechanics. Among the topics included are equations of state, laws of thermodynamics, reversibility, entropy, kinetic theory, transport phenomena and statistical description of systems of particles, normally offered in the spring semester of odd numbered years. Prerequisite: PHYS 243 and MATH 230 (both of which may be taken concurrently), or permission of the instructor.

371. Electromagnetic Fields. Cr. 3. A study of charge and magnetic fields, their sources and interactions in vacuum and in dielectric and magnetic media. Prerequisites: PHYS 250 and MATH 234 or 350.

372. Electromagnetic Waves and Physical Optics. Cr. 3. Proceeding from Maxwell's equations, students investigate the wave aspects of electromagnetic fields including propagation, reflection, refraction, polarization, interference and diffraction. Other topics include radiating systems and wave guides. Normally offered in the spring semester of odd numbered years. Prerequisite: PHYS 371.

381. Advanced Mechanics. Cr. 3. The application of advanced mathematical methods to physical problems. Topics may include Lagrange's method, small oscillation theory including coupled oscillators, generalized rotation, the theory of special relativity, numerical methods and perturbation theory. Normally offered in the fall semester of even numbered years. Prerequisites: PHYS 250 and MATH 350 (may be taken concurrently).

390. Topics in Physics. Cr. 1-4. A study of various topics of current interest in physics. Prerequisites are dependent upon the topic. Interested students are urged to contact the instructor or Chair of the Department for specific information.

420. Microprocessor Applications. 2+1, Cr. 3. (Also offered as ECE 420.) The application of microprocessors and microcontrollers in embedded system design, emphasizing the interconnection of available components into systems and case studies of existing applications. Prerequisite: ECE 246 or 223.

421. Quantum Mechanics I. Cr. 3. A continuation of PHYS 241, with further development of quantum theory, including coupled oscillators, generalized perturbation theory. Prerequisites: PHYS 243 and MATH 350 of either semester of even numbered years. Prerequisites: PHYS 243 and MATH 350 (both of which may be taken concurrently), or permission of the instructor.

422. Quantum Mechanics II. Cr. 3. A continuation of PHYS 421, with further development of quantum theory, including time independent and time dependent perturbation theory with applications, scattering theory, matrix mechanics, multi-electron and molecular systems, Hartree-Fock theory, superconductivity, and elementary relativistic quantum mechanics. Normally offered in the spring semester of even numbered years. Prerequisite: PHYS 421 or the permission of the instructor.

430. Nuclear Physics. Cr. 3. Nuclear physics for students with physics or engineering backgrounds. Topics include nuclear models, nuclear reactions, alpha, beta, and gamma radioactivity, and fusion physics. Prerequisite: PHYS 243. Normally offered in the spring semester of odd numbered years.

430L. Nuclear Physics Laboratory. 0+3, Cr. 1. An advanced laboratory to study nuclear reactions, radioactivity, and fusion. Laboratory will include the use of the 300 keV particle accelerator and the subcritical fission assembly. Prerequisites: PHYS 245 and 310; corequisite: PHYS 430. Normally offered in the spring semester of odd numbered years.

440. Condensed Matter Physics. Cr. 3. A presentation of the basic concepts of the quantum theory of matter, with emphasis on physical models which provide a quantitative description of the solid state. Topics include crystal structure, diffraction, the reciprocal lattice, chemical bonding in molecules and solids, lattice dynamics, phonons, thermal properties, the free electron gas, electrons in a periodic lattice, band structure, semiconductors, magnetic and optical properties, and superconductivity. Normally offered in the spring semester of even numbered years.

445. Experimental Physics V. 0+3, Cr. 1-2. Each student undertakes an experimental research project. A written report and an oral presentation at the Physics Colloquium are required. Student research projects must be approved by the Department. Prerequisite: consent of the Chair of the Department. Two credits are required for the physics major. May be taken as two credits in one semester or preferably as one credit in each of two consecutive semesters.

451. Cooperative Education in Physics I. Cr. 0.5-3. Experience in basic or applied physics with a cooperating employer. Mid-term and final written reports required. Prerequisites: PHYS 245 and approval of the Chair of the Department. S/U grade.

482-483. Cooperative Education in Physics II-III. Cr. 0.5-3. Continuation of PHYS 481. Mid-term and final written reports required. Prerequisites: PHYS 481 and approval of the Chair of the Department. S/U grade. May be repeated beyond 483 for a total of 6 credits.

489. The Teaching of Natural Sciences. Cr. 3. (See ED 489.) A study of the methods of teaching natural sciences in the secondary schools. This course may not be counted toward a major or a minor in Physics. Prerequisite: admission to Supervised Teaching.

492. Research or Reading in Physics. Cr. 1-3. Research or reading in physics, under the supervision of a faculty member. Prerequisite: consent of the Chair of the Department.


499. Physics Colloquium. Cr. 0. All physics majors are expected to register for this course. S/U grade.
Political Science

Professors Baas (Chair), Balkema, Trost; Associate Professor Lin; Assistant Professor Kingsland.

Historically, political science has occupied a central position in liberal arts. The study of politics focuses on the values that humans should seek and the particular legal and structural organizations that allow us to realize our desired values. Contemporary political science combines this concern for normative issues with an emphasis on the development of scientific explanation of political matters. Hence, political science now stresses the use of sophisticated scientific procedures and empirical and quantitative methodology in seeking explanations as well as attempting a normative analysis.

A major in political science may lead to many careers including, but not limited to, law, criminal justice, business, education, government service at the state, national, local and international level, politics, policy analysis, campaign management, and work for private interest groups. Many political science graduates eventually go on to law school and other graduate programs.

The Department sponsors a regular series of "Brown Bag Lunches" where a variety of topics are discussed. The Department also recognizes outstanding student achievement through membership in the Beta Nu Chapter of Pi Sigma Alpha, the national political science honor society.

Special Programs. For information concerning the Lutheran College Washington Consortium Semester and the Washington Semester see page 12. For information concerning the Semester in the United Nations see page 12.

Community Research and Service Center. The Department of Political Science has established the Community Research and Service Center. The primary goals of the Center are the following: first, to provide research assistance and other services to government, not-for-profit organization, and in some instances, business in Northwest Indiana; second, to provide students the opportunity to learn in an applied setting. Students become integral parts of the Center by taking certain courses and in the process learn basic research methods and gain practical experience in working for and dealing with government, business and other organizations.

Concentrations in Political Science. The department has developed a number of options for the major and the minor that allow students to pursue their own interests and vocational goals. Concentrations are defined for interest in international relations, legal studies, public policy and public administration as well as general political science.

Major. A minimum of 30 credit hours in political science constitutes a major. One of the following concentrations must be followed.

General Political Science. The following courses are required: POLS120, 220, (130 or 230), 240, 493, and 15 additional credit hours in political science.

International Relations Concentration. The following courses are required: POLS 120 or 220, 130, 230, 240, 493 and 15 additional credit hours from the following: POLS 325, 330, and 380 and 490 when the topics are appropriate.

Legal Studies Concentration. The following courses are required for this concentration: POLS 120, 220, and 12 additional credit hours from the following: POLS 140, 340, 341, 345, and 380 and 490 when the topics are appropriate.

Public Policy and Public Administration Concentration. The following courses are required: POLS 120, 130, 220, 240, 260, 360, 493 and 9 additional credit hours from the following: POLS 326, 327, 345, 361, 386, and 490 when the topics are appropriate.

Minor. A minimum of 18 credit hours in political science constitutes a minor.

General Political Science. The following courses are required for this concentration: POLS 120, (130 or 230), and at least 12 additional credit hours.

International Relations Concentration. The following courses are required for this concentration: POLS 120, 130, 230, and 12 additional hours from the following courses: POLS 325, 330, and 380 and 490 when the topics are appropriate.

230. International Relations.
Cr. 3. The fundamentals of international politics and international organization, particularly the United Nations and its specialized agencies.

240. Political Theory.
Cr. 3. An examination of the meaning and utility of theory in contemporary political science. Normative/prescriptive theories as well as analytical and empirical theories are surveyed and examined.

250. Political Philosophy.
Cr. 3. (Also offered as PHIL 250). A survey of the major formulations and problems of Western political thought as developed by political philosophers from the Greeks through the modern era.

Cr. 3. The goal is to learn basic research skills by being involved in an applied research project. The particular project will vary from semester to semester and students will work together as a team to complete the project.

270. Political Behavior.
Cr. 3. An exploration of the sources and consequences of individual and group political behavior. The course will include an extensive consideration of the methods necessary to examine political behavior, including computer-aided analysis of survey data.

320. Problems in State and Local Politics.
Cr. 3. A study in depth of important contemporary problems on the state or municipal level in the United States. Prerequisite: POLS 220 or consent of the instructor.

325. Problems in American Politics.
Cr. 3. An intensive study of topics in the process, policies and functions of the American political system (e.g., political parties). Prerequisite: POLS 120 or consent of the Chair of the Department.

326. The Presidency.
Cr. 3. An examination of the American Presidency with specific emphasis on the President's constitutional position, the process of nominating and electing a President, Presidential power and behavior, and the President's relations with the public and coordinate branches of government. Prerequisites: POLS 120 or consent of the Chair of the Department.

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327. Congress.
Cr. 3. A study of the legislative processes in which emphasis is placed on the Congress of the United States and its policy-determining and directing roles. Prerequisite: POLS 120 or the consent of the Chair of the Department. (This course often includes a field trip.)

330. Political Science I.
Cr. 3. A study of political systems in the Western industrialized world. Attention is directed primarily at Western and Eastern Europe, alternately. Prerequisite: POLS 130 or consent of the Chair of the Department.

332. Political Science II.
Cr. 3. An introduction to the study of the Constitution and government in the United States. Topics include the structure of government, the Bill of Rights, and the process of policy-making. Prerequisite: POLS 120 or consent of the Chair of the Department.

335. Political Science III.
Cr. 3. Examination of the relationship between Congress and the executive branch. Topics include legislative-executive relations, congressional committees, and the role of policy networks. Prerequisite: POLS 120 or approval of the Chair of the Department.

336. Political Science IV.
Cr. 1-4. An introduction to the study of political behavior, with emphasis on public opinion, political participation, and voting patterns. Prerequisite: consent of the instructor.

337. Political Science V.
Cr. 3. An introduction to the study of comparative politics, focusing on political systems in Africa, Latin America, and the Middle East. Prerequisite: POLS 120 or consent of the Chair of the Department.

338. Political Science VI.
Cr. 3. An introduction to the study of international relations, with a focus on the United Nations and international organizations. Prerequisite: POLS 120 or consent of the Chair of the Department.

339. Political Science VII.
Cr. 3. An introduction to the study of political theory, with a focus on classical and contemporary theories of government. Prerequisite: POLS 120 or consent of the Chair of the Department.

340. Constitutional Law I.
Cr. 3. An analysis of Supreme Court decisions relating to judicial review, the power of national and state governments, federalism, the separation of powers, Presidental and Congressional power and related topics. Prerequisite: POLS 120 or consent of the instructor.

341. Constitutional Law II.
Cr. 3. A continuation of POLS 340 focusing on Supreme Court decisions relating to the Bill of Rights, equal protection, due process and related topics. Prerequisite: Political Science 120 or consent of the instructor. POLS 340 is not required.

Cr. 3. An examination of law and courts as part of the political process with specific emphasis on factors which influence judicial decisions and the impact of court decisions. Prerequisite: POLS 120 or consent of the Chair of the Department.

343. Problems in Political Philosophy.
Cr. 3. (May also be offered as PHIL 355.) The study of one or more specific problems or philosophers in modern political philosophy. Prerequisites: POLS 250 or consent of the instructor.

344. Problems in Political Administration.
Cr. 3. An introduction to the basic principles of administrative organization and management in government. Prerequisites: POLS 120 and junior standing.

345. Public Policy.
Cr. 3. An introduction to the study of the public policy processes, focusing on the politics and science of policy formulation, execution and evaluation.

346. Public Administration.
Cr. 3. An introduction to the basic principles of administrative organization and management in government. Prerequisites: POLS 120 and junior standing.

347. Public Administration II.
Cr. 3. An introduction to the basic principles of administrative organization and management in government. Prerequisites: POLS 120 and junior standing.

348. Public Administration III.
Cr. 3. An introduction to the basic principles of administrative organization and management in government. Prerequisites: POLS 120 and junior standing.

349. Public Administration IV.
Cr. 3. An introduction to the basic principles of administrative organization and management in government. Prerequisites: POLS 120 and junior standing.

350. Public Administration V.
Cr. 3. An introduction to the basic principles of administrative organization and management in government. Prerequisites: POLS 120 and junior standing.

351. Public Administration VI.
Cr. 3. An introduction to the basic principles of administrative organization and management in government. Prerequisites: POLS 120 and junior standing.

352. Public Administration VII.
Cr. 3. An introduction to the basic principles of administrative organization and management in government. Prerequisites: POLS 120 and junior standing.

353. Public Administration VIII.
Cr. 3. An introduction to the basic principles of administrative organization and management in government. Prerequisites: POLS 120 and junior standing.

354. Public Administration IX.
Cr. 3. An introduction to the basic principles of administrative organization and management in government. Prerequisites: POLS 120 and junior standing.

355. Public Administration X.
Cr. 3. An introduction to the basic principles of administrative organization and management in government. Prerequisites: POLS 120 and junior standing.

356. Public Administration XI.
Cr. 3. An introduction to the basic principles of administrative organization and management in government. Prerequisites: POLS 120 and junior standing.

357. Public Administration XII.
Cr. 3. An introduction to the basic principles of administrative organization and management in government. Prerequisites: POLS 120 and junior standing.

358. Public Administration XIII.
Cr. 3. An introduction to the basic principles of administrative organization and management in government. Prerequisites: POLS 120 and junior standing.

359. Public Administration XIV.
Cr. 3. An introduction to the basic principles of administrative organization and management in government. Prerequisites: POLS 120 and junior standing.

360. Public Administration XV.
Cr. 3. An introduction to the basic principles of administrative organization and management in government. Prerequisites: POLS 120 and junior standing.

361. Public Policy.
Cr. 3. An introduction to the study of the public policy processes, focusing on the politics and science of policy formulation, execution and evaluation.

362. Public Policy II.
Cr. 3. An introduction to the study of the public policy processes, focusing on the politics and science of policy formulation, execution and evaluation.

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370. Public Policy X.
Cr. 3. An introduction to the study of the public policy processes, focusing on the politics and science of policy formulation, execution and evaluation.
Psychology

psychology (excluding PSY 111) and for PSY 495, PSY 245, 250, 345, or 355, when taken with the corresponding laboratory, may be used in partial fulfillment of the Natural Science component of the General Education Requirements.

120. Human Growth and Development. Cr. 3. Life-span approach to human growth and development involving maturational, cognitive, and behavioral changes with age. This course may not be counted toward a major in psychology.

125. Social Psychology. Cr. 3. An interdisciplinary approach to the study of social influences on the psychological functioning and behavior of the individual.

201. Statistical Methods. Cr. 3. An introduction to the fundamentals of descriptive and inferential statistics for the behavioral sciences. Prerequisite: MATH 110 or placement higher than MATH 110 on the math placement exam.

202. Research Methods in Psychology. Cr. 3. The basic principles and methods of research in psychology focusing on the experimental method and the skills necessary to design, carry out, interpret and write up a research project. Prerequisite: PSY 201.

235. Abnormal Psychology. Cr. 3. An analysis of psychopathology within the framework of theory and research.

240. Evolutionary Psychology. Cr. 3. Understanding of human and animal behavior and cognition based on evolutionary principles and the use of the comparative approach. Includes topics on aggression, strategies of mate selection and parenting, intelligence, and consciousness.

245. Physiological Psychology. Cr. 3. A study of the structure and function of the nervous system in relation to motivation, emotion and cognitive function.

246. Laboratory in Physiological Psychology. 0+2.5, Cr. 1. Optional laboratory to be taken in conjunction with PSY 245. Prerequisite: PSY 201 and 202 or consent of the instructor.

250. Principles and Applications of Learning. Cr. 3. Concepts of learning derived from research with human and non-human subjects with emphasis on the use of these concepts and techniques to help solve common behavioral problems.

251. Laboratory in Principles and Applications of Learning. 0+2.5, Cr. 1. Optional laboratory to be taken in conjunction with PSY 250. Prerequisite: PSY 201 and 202 or consent of the instructor.

265. Human Behavior in Organizations. Cr. 3. Applications of psychological principles, techniques and theories to the work environment. Emphasis is placed on the issues of leadership, motivation, communication and group problem solving.

330/530. Child and Adolescent Development. Cr. 3. Study of the maturational, cognitive, social and behavioral changes associated with the development of the child through adolescence.

332/532. Psychology of Adulthood and Aging. Cr. 3. Examination of adult development from the end of adolescence to old age from a psychological perspective.

335/535. Psychology of Personality. Cr. 3. An introduction to various theories of personality, with emphasis on their implications for current psychological applications and research.

345. Sensation and Perception. Cr. 3. An introduction to the study of sensory and perceptual processes and the physiological mechanisms that underlie them.

346. Laboratory in Sensation and Perception. 0+2.5, Cr. 1. Optional laboratory to be taken in conjunction with PSY 345. Prerequisite: PSY 201 and 202 or consent of the instructor.

350/550. Human Cognition. Cr. 3. The study of various aspects of human learning, memory, and thought, such as perception, attention, development of expertise, problem-solving, reasoning, and language.

355. Environmental Psychology. Cr. 3. The study of interrelationships between the physical environment and human behavior, including environmental perception, psychological effects of pollution, personal space, crowding, urbanization, architectural design, and energy consumption.

356. Laboratory in Environmental Psychology. 0+2.5, Cr. 1. Optional laboratory to be taken in conjunction with PSY 355. Prerequisite: PSY 201 and 202 or consent of the instructor.

360/560. The Exceptional Child. Cr. 3. Analysis of the impact of various perceptual, cognitive, physical and social handicaps upon the child. Attention is also given to the study of the gifted, creative child. Prerequisite: PSY 330.

390/590. Special Topics in Psychology. Cr. 1-3. Selected topics based on the special interest areas of students and faculty. Recent topics have included cross-cultural psychology, psychology of women, industrial psychology, psychology of religion, and altered states of consciousness. Topics and descriptions are announced in advance.

Note: The following courses are restricted to junior and senior level students.

461/561. Introduction to Counseling. Cr. 3. A review of contemporary counseling theories and processes as they are applied to various problem areas.


485. Psychology Practicum; Field Experience. Cr. 1-3. Emphasis on, but not limited to, functions of social-service and mental-health agencies. Each student spends 4-10 hours each week in supervised work activity at an agency in Northwest Indiana and two hours every other week in a classroom-discussion meeting. A written report is required. Prerequisites: psychology major, consent of the Chair of the Department, and depending on the practicum site, PSY 461, PSY 265 or other designated courses. May be repeated for credit to a maximum of nine credit hours; only three credit hours may be applied toward a major.

495. Independent Research in Psychology. Cr. 1-3. Individual research projects under faculty supervision involving the design of the project, data collection and analysis. A written report is required. Prerequisites: major with junior/senior standing, a 3.00 grade point average, PSY 201 and 202, and consent of the Chair of the Department. No more than six credit hours of PSY 495 and/or 496 may be applied to major requirements.

496. Independent Study in Psychology. Cr. 1-3. Independent readings under faculty supervision on topics not covered in the standard curriculum. A written report is required. Student must submit an independent study form prior to registration. Prerequisite: major with junior/senior standing and consent of the Chair of the Department. No more than six credit hours of PSY 496 and/or 495 may be applied to major requirements.


499. Psychology Colloquium. Cr. 1. Faculty and student presentations of research projects, professional interests, and current topics related to psychology. Student participation is expected. Prerequisite: junior or senior major. May be repeated once for credit. S/U grade.
Social Work

Associate Professor Walton (Chair); Assistant Professors Merchant, Petties.

Social work is the profession that serves individuals, families, and communities who seek preventative and rehabilitative interventions for an improved quality of life. Focused on social and emotional development within the social environment, the scope of social work is national and international. The profession is social justice and action oriented.

The primary function of this undergraduate program is to prepare the liberal arts student for entry level positions as generalist social workers. The secondary function is preparation for advanced standing in graduate social work education. The department and the professional community provide educationally directed series of internships.

Students utilize the foundation curriculum to prepare for child welfare, community mental health, aging, church, urban studies, or school social services. Joint academic studies exist between the Department; the Lutheran Deaconess Program Plan 2, several minors (Ethnic Studies, Gender Studies, Human Aging), and service learning components.

The Student Social Work Organization offers a unique opportunity to explore major social issues and to represent student interests at departmental meetings.

Faculty, full-time and part-time, are active in community services, the Council on Social Work Education, and the National Association of Social Workers. Field instructors are selected by the Department.

Major. A minimum of 40 credit hours in social work constitutes a major. Courses must include SOCW 151, 210, 220, 240, 330, 340, 365, 410, 455, 456, and 493.

Also required are BIO 125, PSY 110 and 201, SOC 110 and 220, one course in political science and one of the following courses: ECON 136, 221, 222, 233 or GEO 201.

Field experience and instruction is required for social work majors enrolled in SOCW 340, 455, and 456. Field assignments are concurrently arranged with coursework and is sequential. This professional development sequence must meet with Department approval, under the Field Director, and consists of at least four hundred hours. Liability insurance is required.

A minimum of 15 credit hours in social work constitutes a minor. These credits may be selected from SOCW 151, 210, 220, 240, 330, and 390.

Admission. A student's formal admission into the Department as a major requires approval by the Department following the successful completion of SOCW 151 and the completion of admissions procedures. Each social work major selects a faculty adviser. A manual is available to all majors as a guide to department standards.

Degree. The Department of Social Work is fully accredited by the Council on Social Work Education. It offers an undergraduate professional curriculum. The completion of this curriculum and the requirements of the College of Arts and Sciences, including the General Education Requirements, leads to the Bachelor of Social Work degree.

Approval of Schedules. All students who major in social work must have their schedules approved by the Chair of the Department or an assigned adviser at the beginning of each semester.

181. Introduction to the Profession of Social Work.
Cr. 3. The major objective of this course is to inform the student of the basic issues, concepts and systems encountered by the social work practitioner in the helping process in the community. This course is required for all social work majors. It can be of great benefit to students pursuing careers in fields such as corrections, education, ministry, law, nursing, medicine and church work. Community volunteer work and observational experiences are required.

Cr. 3. This course focuses on social welfare programs, both public and private, are examined. Professional values and ethics underlie the content that further examines macrosystem matters affecting human diversity and social justice. Prerequisite: SOCW 151 may be taken concurrently by junior and seniors or consent of the Chair of the Department.

220. Human Behavior and Social Environment.
Cr. 3. A study of the bio-psycho-social variables that affect human development and behavior. The use of various theoretical, primarily developmental, frameworks are examined within the context of individual adaptation to social-cultural environmental factors. Gender, race, sexual orientation, and social class issues and life cycle stages are critically studied. Prerequisite: SOCW 151 or consent of the Chair of the Department.

240. Strategies of Intervention.
Cr. 3. A beginning study of human intervention theories, models, and methods. Ecosystems and psychosocial models are applied to methods for individual and group interactions. Case material and experiential units are examined in field laboratory exercises. Prerequisites: SOCW 151, 210, 220.

330. Vulnerable Populations: Color, Gender, and Orientation.
Cr. 3. This course explores the sociopolitical factors that affect current human responses of diversity, major North America populations of African, Mexican, Asian, Native American descent, women of color, sexually-classified groups, and select international groups of oppression are central in social work's approach to group development and interventions. From a systems perspective of social change and human rights, the emerging cultural response and macro systems policy development are foundational to this study of diversity. Issues around racism, sexism, and heterosexism surface as likely factors in social change planning. Prerequisites: SOCW 151, 210, 220; junior, senior status; consent of the department.

340. Professional Intervention and Human Services.
3-4 Cr. A course that introduces the student to human systems theories and models (individual, group, community) and to the variety of social work interventions. A community field experience is required. Prerequisites: SOCW 151, 210, 220, and 240.

365. Introduction to Methods of Social Research.
Cr. 3. This course examines the application of concepts of research methodology to social work practice. The research content will include qualitative and quantitative research methodologies; analysis of data, including statistical procedures; systematic evaluation of practice; analysis and evaluation of theoretical biases in research methods and reports; and relevant technological advances. Prerequisite: SOCW 151, 210, 220, 240, and PSY 201.

Cr. 2-3. A study of selected topics of contemporary concern for the social worker, such as adulthood, women, clinical methods and techniques for helping professions, housing, ethics, substance abuse, juvenile delinquency, and poverty. Listings are announced. Prerequisite: junior standing or consent of the Chair of the Department.

Cr. 1-3. Full or half-semester courses specializing in particular areas of social work practice or methodology such as administration, current issues in group services, family therapy, new techniques for solving community problems, supervision and children's services. Prerequisites: junior or senior standing and consent of the Chair of the Department.

395. Independent Study.
Cr. 2-3. Prerequisite; junior standing and consent of the Chair of the Department.

Cr. 3. An intensive study of social welfare programs, principally in the United States, and a historical review of the contemporary forces, primarily social and economic, that have shaped their development. Areas included are housing, income maintenance and health care services. Prerequisites: senior standing, consent of the Chair of the Department, SOCW 151, 210, 220, 240, 330, 365.

455. Social Work Practice II.
Cr. 3-4. A course that introduces the student to human systems theories and models (individual, group, community) and to the variety of social work interventions. A community field experience is required. Prerequisites: SOCW 151, 210, 220, and 240.

456. Social Work Practice III.
Cr. 3-4. Continuation course with primary focus on ethics. Field work is required each semester. The student studies each Tuesday and Thursday in a community social service agency. Prerequisites: senior standing and all previously numbered field courses.

Cr. 3. See Honors Work, page 48.

Cr. 3. See Honors Work, page 48.
Sociology

Associate Professors Antommari
(Acting Chair), Venturelli; Instructor Lukas.

The Department of Sociology encompasses the disciplines of sociology, anthropology, and criminology, and seeks to provide a broad-based understanding of the organization and dynamics of human society and culture. Its subject matter ranges from intimate family life to the broader issues of ethnicity, race and gender, from crime to religion, from the divisions of social class to the shared beliefs of a common culture. Its primary focus is on social relationships in a wide variety of cultural and social settings.

The department's programs seek to help students achieve an awareness of the world in which they live and of the causes and consequences of human social behavior. Its basic objective is to aid students to understand themselves, the groups in which they participate, as well as the dynamics of everyday life. By expanding their knowledge of the field, its theories, concepts and research methods, and by acquiring insights to their world from the study of different peoples and cultures, students develop skills in social analysis, enhance their capacity for self-evaluation, and grow in their ability to make informed judgments about key social issues in a multicultural society.

To achieve these objectives, the department has developed a curriculum grounded in the liberal arts tradition that is flexible and responsive to student needs. While all majors are required to enroll in a core of basic sociology courses, the curriculum provides for a range of intellectual, professional, and occupational interests through offering concentrations in sociology and criminology.

International Honor Societies. The department encourages qualifying students to join honor societies in sociology and the social sciences. Such organizations recognize outstanding scholarship and achievement.

The Department encourages outstanding scholarship and achievement. There are two international honor societies for which majors in the department may qualify. First, the department sponsors the NU Chapter of the international honor society in sociology, Alpha Kappa Delta. Second, the department, along with other social science disciplines at Valparaiso University, supports Pi Gamma Mu, the international honor society in social science.

The Common Core. (18 credit hours)
All students who major in the department are required to enroll in the following courses which comprise the common core: SOC 110, (245 or 250), 310, 320, one of (327, 340, or 347), and 493.

The Concentration in Sociology. Intended for students interested in understanding society and social behavior. The sociology concentration can lead to careers in administration in a variety of community, government and social service agencies, market research, or other vocations that require an understanding of the dynamics of human relationships in a multi-cultural society. The concentration also prepares students for graduate study in sociology.

This concentration requires a minimum of 30 credit hours. In addition to the core courses, students must enroll in SOC (150 or 160), (220 or 290), (280 or 290), and 390. Students who elect a 40 credit major may take no more than 3 additional credits from Level I courses, and no more than 3 additional credits from Level II courses.

A course in statistics (PSY 201 or MATH 240) is recommended. Students planning to attend graduate school should also consider elective courses in computer science. Students who seek careers involving agency administration should consider the Liberal Arts Business Minor (page 191).

Students planning to enter careers directly upon graduation are advised to arrange internships or cooperative education courses. These are offered each semester (see Cooperative Education, College of Arts and Sciences, page 49).

The Concentration in Criminology. This concentration is intended for students who plan to prepare for a career in law or employment in the criminal justice system (e.g., law enforcement, courts, or corrections). The concentration consists of 33 credit hours in sociology. In addition to the core courses required of all majors, students in the criminology concentration are required to enroll in SOC 130, (260 or 269) and two of (350, 360 or 445), and 386. A second internship is strongly advised.

Students who plan to attend law school, or who are interested in justice agency administration, are strongly encouraged to complete degree requirements by adding an individualized minor in Justice Administration or some other individualized minor relevant to one's course of study and career plans. It is recommended that students planning an individualized minor select courses from the following: PSY (101 or 102), 201 and 235; MGT 304; and POLS 120, 220, 340, 341, 345, and 360. Other programs which are suggested to complete degree requirements are the Liberal Arts Business Minor (page 191) or the Chicago Urban Semester (page 49).

A course in statistics (PSY 201 or MATH 240) as well as courses in computer science are recommended for students who intend to enter graduate school.

Minor. A minor consists of at least 18 credit hours in sociology. Courses must include SOC 110, (245 or 250), 310, 320 and six additional credits taken beyond Level I.

Degree. Completion of the degree requirements of the College of Arts and Sciences along with the concentration requirements of the Department of Sociology leads to the Bachelor of Arts degree.

Credit by Examination. Credit for SOC 110 may be earned through the College Level Examination Program in Introductory Sociology.

Approval of Plan of Study. Each student taking a major or minor in sociology must have a plan of study approved by designated departmental advisers.

Level I. Courses taught at the introductory level and without prerequisites.

110. Introduction to Sociology.
Cr. 3. The analysis of the major institutions, structures and processes of American society, as well as an introduction to the basic theoretical and methodological approaches of the discipline.

130. The Criminal Justice System.
2+3. Cr. 3. A survey of the operations, functions and interactions of the police, the courts and correction agencies; that is, social organizations which respond to crime. Field trips and observation of selected agencies may be scheduled. Required for the criminology concentration. Open to other students only by consent of the instructor. Normally offered every fall. Prerequisite: approval of the Chair of the Department.

Sociology
Cr. 3. An introduction to criminology, this course examines criminal behavior, the theories used to explain crime, and a brief analysis of societal responses to crime. Prerequisite: Sociology 130 or consent of the Chair of the Department. Normally offered every spring.

290. Topics in Sociology.
Cr. 3. Topics selected on the basis of student and faculty interest. May be repeated for credit if topics are different.

291. Topics in Criminology and Criminal Justice.
Cr. 3. Survey course focused on gaining topical knowledge and understanding of such criminal justice topics as corporate crime, international terrorism, prison reform, drugs and crime, victimology, etc. May be repeated for credit if topics are different.

292. Topics in Anthropology.
Cr. 3. Survey course on specific culture areas and ethnic groups such as Peoples and Cultures of the Middle East or Muslim Society. Through ethnographic case studies, films, slides, and lectures, students are introduced to a range of societies and compare and contrast various aspects of their cultures. Areas selected on the basis of student and instructor interest. May be repeated for credit if topics are different.

Level III.
Courses designed to provide depth of experience and understanding in narrow subject areas. All have as a prerequisite at least SOC 110 or 150 or consent of the Chair of the Department. Some courses have additional prerequisites.

Cr. 3. Study of the historical development of sociological thought and the contributions of major theorists, along with an introduction to the logic of scientific inquiry and theory building in the social sciences. Required of all majors and minors. Normally offered every fall.

320/520, Research Methods in Sociology.
Cr. 3. Strategies for developing and testing hypotheses; comparison of basic and applied research goals; methods of generating and organizing data; computer-aided elementary analysis. Skills taught through small-scale projects whenever possible. Required of all majors and minors. Open only to sociology majors and minors of at least junior standing. Prerequisite: SOC 110, 245, 250, and 310 or consent of the Chair of the Department. Normally offered every spring.

325/525, Urban Sociology.
Cr. 3. An examination of the city as a social system. Emphasis placed upon the historical, demographic, and ecological development of urban areas, along with an exploration of major problems confronting American cities. Development of urban life style is also examined.

327/527, Aging in American Society.
Cr. 3. An examination of the social aspects of aging; this course seeks to explore the demographic, historic, theoretical, and cross-cultural perspectives on aging. Specific emphasis is placed on major problem areas for the elderly in America, including medical care, housing, family relationships, work and leisure, and finances.

330, Points of Intersection: Mexico and the United States.
Cr. 3. Offered only at the Puebla, Mexico, Study Center.

340/540, Gender.
Cr. 3. An introduction to how society defines and structures gender identity and behavior for males and females. The course focuses on the biological and social constructs of gender and how those are interpreted through history, language, sexuality, race, family structure, dating patterns, religion, and work environments.

364/564, Race and Ethnic Relations.
Cr. 3. A survey of the racial and ethnic structure of American society, with special emphasis upon ethnic stereotyping and power, plus political and economic institutionalized racism and prejudice. Examines how race and ethnic background influence social behavior.

365/565, Law Enforcement.
Cr. 3. An examination of policing at the local, state and federal levels, from historical and contemporary points of analysis, with emphasis on the relationship between law enforcement and other criminal justice agencies. Prerequisites: SOC 130 and (260 or 265), or consent of the Chair of the Department. Normally offered in the spring of even-numbered years.

360/560, Penology.
Cr. 3. A critical social scientific examination of prisons, jails and community correctional services, including the work of probation and parole officers, with emphasis on both historical development and current trends and issues. Prerequisites: SOC 130 and 260 or 265 or consent of the Chair of the Department. Normally offered in the fall of even-numbered years.

386, Internship in Sociology/Criminal Justice/ Anthropology.
Cr. 3. Internships are organized to provide students with some measure of "hands on" experience in their field of interest. Students are required to develop a contract with both the agency to which they are assigned and a supervising instructor outlining basic expectations. Experience and workload vary with both the field of study and the agency assignment. Required of all criminal justice students, recommended for all others. Prerequisites: junior standing and consent of the Chair of the Department.

390/590, Issues in Sociology.
Cr. 3. This course focuses on a particular social issue or issues from a problem of dilemma standpoint, such as substance abuse, sexism, racism, ageism, and occupational discrimination. May be repeated for credit if the issues are different.

391/591, Issues in Criminology and Criminal Justice.
Cr. 3. This course addresses a specific criminal justice issue or issues such as the expanded use of probation and parole, white collar crime and street crime; police violence; the use of capital punishment; recidivism; and cross-cultural comparative crime. May be repeated for credit if the issues are different.

392/592, Issues in Anthropology.
Cr. 3. An exploration of some of the issues debated by anthropologists today. These include cultural power and subcultural development; sickness and health in cross-cultural perspective; nationalism, culture and identity; aging in cross-cultural perspective. May be repeated for credit if the issues are different.

445/545, Sociology of Law.
Cr. 3. The study of the place of law in society, the relationship between law and social change, and the relationship between the law and other social institutions. Normally offered in the spring of odd-numbered years.

481, Cooperative Education in Sociology/ Criminal Justice/Anthropology I.
Cr. 1-3. Work experience in a cooperating public or private service agency. Written reports required. Prerequisites: Junior standing and approval of the Chair of the Department.

482-483, Cooperative Education in Sociology/ Criminal Justice/Anthropology II-III.
Cr. 1-3. Continuation of SOC 481. Prerequisites: SOC 481 and approval of the Chair of the Department. May be repeated beyond 483 for additional credit.

486, Internship in Criminal Justice II.
Cr. 3. Continuation of SOC 386. Available to students in the criminal justice concentration who do not elect to participate in the Chicago Urban Semester Program. Prerequisite: SOC 386.

493, Senior Seminar.
Cr. 3. An integrative reading and discussion course which applies sociological approaches the student has learned in previous courses to current topics and issues. Required of all concentrations. Prerequisite: senior standing or consent of the Chair of the Department.

495, Independent Study in Sociology/ Criminology.
Cr. 1-3. Independent investigation of a specialized topic in sociology. May be taken more than once for credit if the topics are different or if the topics are to be continued.

497, Honors Work in Sociology.
Cr. 3. See Honors Work, page 48.

498, Honors Candidacy in Sociology.
Cr. 3. See Honors Work, page 48.
Theatre and Television Arts

Associate Professors Leeseberg-Lange, Paul (Chair), Pick; Instructor Stalmah.

The Theatre and Television Arts Department prepares students for service to a society in which knowledge of the speech and theatre arts is increasingly important to success in a variety of professional vocations including communication, education, entertainment, the law and religion. The program is designed to engage students in studies of the rich heritage of theatre arts and dance in Western and non-Western cultures. The co-curriculum provides students with opportunities for disciplined creative expression.

The department serves: (1) majors and minors who are preparing for careers in the theatre and television industries or in industries where knowledge of theatre and television production is required; (2) students who take the academic courses to meet the General Education Requirements or who find courses in drama and dance to be attractive components of a liberal arts education; and (3) participants in faculty-supervised co-curricular theatre, television and dance productions as a way of enriching their lives.

The department offers students a wide range of studies including acting, dance, design, directing, production, technology, and writing. The study of dramatic literature is given special prominence in the curriculum.

Major. A minimum of 30 credit hours in theatre, television, and dance. Students are advised to choose one of two majors: the Theatre and Television Arts major or the Drama major. Students may also choose a complementary major in Music-Theatre.

The theatre and television arts major must include TTVA 130, 131, 135 or 236, 134 or 171, 141, two from (238, 239, 334, 337, and 338), and 251, 335, and one from (357, 358, and 431). This major is recommended for students seeking careers in the commercial entertainment industry.

The drama major must include TTVA 135, 141, 252, 238, 239, 334, 337, and 390. Elective courses may be chosen from the department's offerings and from approved electives from other humanities departments, such as ENGL 231, 410, 460; FL 250, 260, 323, 490; and CC 300. This major is recommended for liberal arts and humanities students and students seeking a second major.

Music-Theatre Complementary Major. The complementary major in Music-Theatre must include TTVA 172, 236, 273, and 390, and MUS 103, 109, 110, 163, 203, 210, and 211.

Minor. A minor in theatre and television arts consists of 16 credit hours in courses agreed upon by the student and the department chair. The minor must include one a credit independent project.

SPECIALIZED MINORS

Acting Minor. The minor must include TTVA 130, 134, (135 or 238), 141, 171, and 357. Toward the end of the completion of the course work, the student in Acting must do an independent project (TTVA 390) for one credit hour, preparing scenes, sketches, or monologues for public performance.

Theatre Production Minor. The minor must include TTVA 130, 131, 135, (431 or 433), and one course in theatre literature (238, 239, 337, or 338). Toward the end of the completion of the course work, the student in Theatre Production must do an independent project (TTVA 390) for one credit hour, directing a short play or video for public exhibition.

Theatre Design Minor. The minor must include TTVA 130, 131, 335, 356, and one course in theatre literature (238, 239, 337, or 338). Toward the end of the course work, the student in Theatre Design must do an independent project (TTVA 390) for one credit hour, preparing designs and working drawings for costumes, scenery and lighting for a selected play or video or dance production.

Teaching Programs. Students who plan to teach speech, theatre, television or dance in secondary schools with a major or minor in Theatre and Television Arts should consult the Chair of the Department and the Education Department for specific requirements.

Cooperative Education. Qualifying students may participate in prearranged, approved professional work experiences. During their employment, students are financially compensated by the cooperating employer. Credits earned in this program apply toward the major and may substitute for other required courses with the consent of the Chair of the Department. For further information, refer to Cooperative Education, College of Arts and Sciences, page 48.

Degree. Completion of the degree requirements of the College of Arts and Sciences with a major in theatre and television arts leads to the Bachelor of Arts degree.

Approval of Schedules. All students pursuing a major or minor in Theatre and Television Arts must have their schedules approved by the Chair of the Department at the beginning of each semester.

The University Theatre. A co-curricular venue for the study and practice of theatre art, the University Theatre is a community of thoughtful student and faculty artists and craftspeople serving the students of Valparaiso University. By bringing to the public stage productions of classic and contemporary plays, the University Theatre offers its campus, local, and regional audiences the opportunity to explore the human condition and to celebrate the richness of life itself. The University Theatre is dedicated to excellence in play production, to the development of the skills of understanding, analysis, preparation, and performance of plays in students who are committed to vocations in the theatre, and to the enrichment of the lives of all those who participate in its activities. The University Theatre's programs include a season of four major productions, experimental theatre, student-directed plays, and Soul Purpose, a touring chancel drama troupe. Theatre work is focused in performance, production, and administration. Advanced students regularly supervise in all areas. Majors in the department are expected to participate actively and frequently in the programs of the University Theatre.

101. Introduction to Contemporary Theatre and Television.

CR. 3. An introduction to the fields of theatre and television, surveying developments in the arts of performance and design, the technology, and the literature during the past twenty-five years. Current conditions and trends will be stressed. Field trip to Chicago.

130. Makeup and Costume.

2+2. Cr. 3. An introduction to the design and practice of stage and studio costumes and makeup, with discussion of materials, equipment and historical background. Offered in the fall semester.

131. Scenery and Lighting.

2+2. Cr. 3. An introduction to the design and practice of scenery building, lighting for the stage and studio, and production management. Offered each spring semester.

133. Theatre Practicum.

0+2, Cr. 1, or 0+4, Cr. 2. Creative work in the production of stage plays, teleplays, or dance productions. This course may be taken more than once up to maximum of six credit hours. Majors must take a minimum of one credit per academic year. Offered each semester.

134. Voice and Diction.

CR. 3. An introduction to voice and speech science, enhancement and correction exercises as well as the International Phonetic Alphabet to aid in articulatory improvement, dialect correction and/or acquisition.

135. Acting I.

2+2, Cr. 3. A basic course in the theory and technique of acting.

141. Oral Interpretation.

CR. 3. A basic course stressing the communication of thought and feeling from the printed page to the listener. Emphasis is on analysis, interpretation and reading of drama, verse and prose.

171. Basic Dance.

CR. 2. An introduction to movement and dance emphasizing skeletal alignment and correct body placement for the purpose of developing efficient, economical movement. The physical, emotional and psychological motivations of movement are explored. Offered in the spring semester each year.

172. Modern Dance I.

CR. 3. Introduction to modern dance technique, vocabulary and body awareness. Offered in the fall semester each year.

236. Acting II.

2+2, CR. 3. A continuation of study in the theory and technique of acting. Prerequisite: TTVA 135.

238. World of Theatre I.

CR. 3. An introduction to the history and literature of the theatre from the ancient Athenians to 1700. Development of theatrical performance is traced through films, a selection of plays, live performances, recordings and lectures. Prerequisite: sophomore standing or approval of the Chair of the Department. This course may be used to fulfill the Fine Arts/Fine Arts-Literature component of the General Education Requirements. Offered each fall semester.

239. World of Theatre II.

CR. 3. An introduction to the history and literature of the Western theatre from 1700 to the present day. Development of theatrical performance is traced through films, a selection of plays, live performances, recordings and lectures. Prerequisite: sophomore standing or approval of the Chair of the Department. This course may be used to fulfill the Fine Arts/Fine Arts-Literature component of the General Education Requirements. Offered each spring semester.
Theatre and Television Arts

251. Television Production.
Cr. 3. (Also offered as COMM 251) A practical course in television production. Students produce programs and acquire experience in all facets of production, including scripting, shooting, editing, and performing. Prerequisite: COMM 101.

252. Writing for Stage and Screen.
Cr. 3. Devoted to the study of creative writing in dramatic form, given special attention to the particular requirements of stage, film, and television. Prerequisite: ENGL 100 or consent of the instructor. Offered in the fall semester.

273. Modern Dance II.
Cr. 3. Expansion of modern dance vocabulary and body awareness. Prerequisite: TIVA 172. Offered in the spring semester.

290. Topics in Theatre, Television Arts, and Dance.
Cr. 1-3. Topics, projects, and independent studies arranged according to the interests of students and instructors. Offered each semester.

334. Theatre of the Non-Western World.
Cr. 3. Survey of the traditional theatre and drama of Asia and Africa. Prerequisite: junior standing or approval of the Chair of the Department. Offered in the spring semester of odd-numbered years.

335/535. The History of Theatre as a Visual Art.
Cr. 3. A survey of theatrical spectacle as an art form paralleling developments in architecture, landscaping, painting, sculpture, and interior design from the Middle Ages to the present. Class lectures and discussions are centered around slides and pictorial displays. This course may be used to fulfill the Fine Arts/Fine Arts-Literature component of the General Education Requirements. Prerequisite: junior standing or consent of the Chair of the Department.

Cr. 3. A survey of the American theatre and drama from the eighteenth through the twentieth centuries. The modern period, including playwrights such as O'Neill, Miller, Williams, Baraka, and Albee, and the musical theatre is given special emphasis. This course may be used to fulfill the Fine Arts/Fine Arts-Literature component of the General Education Requirements. Prerequisite: junior standing or consent of the Chair of the Department.

338. Television Drama.
Cr. 3. A survey of drama written for television from the earliest days to the present. Students will analyze television plays and their authors in their social and historical context. Areas of study will include genres, treatment of topical issues, ideological content, and the relationship of the dramatic form to the evolving production and distribution technology. Offered in the spring semester.

356/556. Design for Stage and Television.
2+1, Cr. 3. The translation of written and verbal concepts into scenic elements of line, form, space, texture, and color. The actor/audience relationship is examined with regard to design for the various forms of theatre and television, and dance production. Offered in the fall semester.

357. Performance for the Camera.
2+1, Cr. 3. A practical course in relating acting and performance techniques to the special requirements of the studio and television camera. Prerequisite: TIVA 251. Offered in the spring semester of each year.

358. Advanced Television Production.
Cr. 3. (Also offered as COMM 358) Workshop format emphasizing advanced production and program practices. Projects include preparation of television materials for possible off-campus usage. Prerequisite: TIVA 251 or consent of the Chair of the Department. Offered in the spring semester of each year.

381. Cooperative Education in Theatre and Television Arts I.
Cr. 0.5-3. Professional work experience with a cooperating employer. Written report required. Prerequisite: approval of the Chair of the Department.

386. Internship.
Cr. 3. Internships in which students may intensively study a particular area of theatre, television, or dance. May not be repeated for credit. Prerequisite: consent of the Chair of the Department.

390. Topics and Projects.
Cr. 1-3. Individual or group. Specific projects based on special interests of students and faculty. Example topics: Drama and the Church, Television Drama, Theatre and File, Commedia dell'Arte, Entertainment and the Law.

431. Play Directing.
2+2, Cr. 3. A study of the art of directing, the problems of choosing a play, methods of casting and rehearsal procedures. Prerequisites: TIVA 130 or 131, and 135 or consent of the Chair of the Department. Offered in the fall semester.

433/533. Directing the Young Actor.
2+2, Cr. 3. University students work with children in a laboratory context and survey the literature and theory of theatre for children. Prerequisites: TIVA 130 or 131, and 135, or consent of the Chair of the Department. Offered in summer session only.

497. Honors Work in Theatre and Television Arts.
Cr. 3. See Honors Work, page 48.

498. Honors Candidacy in Theatre and Television Arts.
Cr. 3. See Honors Work, page 48.

Theology

Professors Albers, Baepler, Harre, Ludwig, Niedner, Truemper (Chair), Wnagerin; Associate Professors: Brockopp, Moore, Pahl.

Theology Department of Valparaiso University has as its major purpose the study, transmission, and interpretation of the Christian tradition as a part of and in relation to the wider religious heritage of humankind. It is the goal of the department to enable all graduates of Valparaiso University to be knowledgeable of the Christian faith, sensitive to religious issues in our global society, and prepared for roles in which their understanding of religion may enhance their contribution to church and society. Since this is a theology department within a university, our work is founded upon the liberal arts tradition of inquiry; competing ideas meet and are freely debated in the search for truth. The Theology Department plays an essential part in expressing and defining the University's commitment to the Christian tradition, particularly to the Lutheran perspective. The department seeks to assist its students in becoming more aware of their own religious traditions, more critical and affirming in their appropriation of them, and more respectful of other traditions.

General Education. Theology component of the General Education Requirement at Valparaiso University is three courses of three credit hours each. These courses shall be taken from each of the three levels indicated in the course listings below. All students are required to take a level I course, ordinarily in their freshman year. This must be followed by a course from level II, ordinarily taken in the sophomore year. In either the junior or the senior year, each student must take at least one course from the level III listings.

Major. A minimum of 30 credit hours in theology, 21 credit hours beyond the General Education Requirement, constitutes a major. Courses must include THEO 100 or 106, a course in biblical studies (210, 311-319), a course in the history of the Church and its thought (220, 230, 234, 321-326, 331-338), a course in contemporary religion and practice (240, 250, 341-345, 352-359, 451, 453), a course in history of religions (260, 361-368) and seminar 493. Students shall also take four additional courses chosen in consultation with their departmental major adviser.

Minor. A minimum of 18 credit hours in theology, chosen by the student in consultation with the Chair of the Department, constitutes a minor. At least three courses shall be taken at level III.

Programs. The Department provides programs of study and advising for students who wish to prepare for professional careers in the Church:

1. Programs of study in preparation for Deaconess Ministry are structured by the Department in cooperation with the Lutheran Deaconess Association.

2. Programs for preparation for seminary studies are individually tailored to the needs and interests of the student.

3. Students interested in service as Directors of Christian Education or Youth Workers arrange their programs with their departmental adviser.

Degree. Completion of the requirements of the College of Arts and Sciences with a major in Theology leads to the Bachelor of Arts degree.

Approval of Schedules. All students taking a major in Theology must have their schedules approved by the Chair of the Department or by their assigned departmental advisers at the beginning of each semester.

LEVEL I. Ordinarily freshman year.

100. Introduction to Christian Theology.
Cr. 3. An introduction to Christian theology with a focus on Christian faith as it functions in everyday life. Resources for the study will include central biblical and doctrinal themes as these have been and are being understood and reflected upon by Christians in various times, in various cultures, and in dialogue with people of other religions.

106. Families of Abraham: Judaism, Christianity and Islam.
Cr. 3. An introduction to the study of religion by giving attention to the sacred writings, central teachings, worship practices and ethical assumptions of the three monotheistic religions, noting both their similarities and their differences. Fulfills the level I theology requirement. Not open to those who have received credit for THEO 100. (This course is designed especially to serve the needs of some of the international students. To insure learning through dialogue, class enrollment will be approximately one-half international and one-half U.S. students.)
LEVEL II. Ordinarily sophomore year. Prerequisite for courses in this level is one course at Level I.

210. Literature of the Bible.
Cr. 3. A study of the development of the two Testaments in the framework of the history of ancient Israel and early Christianity. Emphasis is placed on key theological themes and on the literary types within these scriptures.

220. Formative Events in Church History.
Cr. 3. A study of those events which shaped the Church's understanding of its nature and mission.

Cr. 3. A study of the formation and development of Christian creeds and doctrine.

234. Comparative Christianity.
Cr. 3. An examination of various Christian denominations in the light of their history and confessions.

240. Christian Ethics.
Cr. 3. A study of norms for moral judgment and the dynamics for moral action in the light of the Christian faith.

250. The Church in the World.
Cr. 3. A study of the life and mission of the Church, with particular emphasis on movements for renewal, reform, and reunion, as well as on current events in Church life. Special attention is given to developments in Latin America and/or Africa.

260. History of Religions.
Cr. 3. A study of major religions and of the ways in which they interpret the nature of reality and the relationship between humanity and the divine.

290. Theological Topics.
Cr. 3. Focused topics offered on the basis of student and faculty interest. May be repeated for credit if topics are different.

LEVEL III. Prerequisite for courses in this level is one course at level II. To fulfill General Education Requirements, students must take at least one Level III course in their junior or senior year.

THE BIBLE AND ITS WORLD

311. Understanding the Old Testament.
Cr. 3. A study of the history and theology of the Old Testament with attention to its role in Christian faith.

Cr. 3. A study of the history and theology of the New Testament with attention to its reception in the Old Testament.

313. Archaeology and Religions of the Ancient Near East.
Cr. 3. A study of the religions of Mesopotamia, Egypt and the Levant as known from archaeology. Special reference is made to the Israelites in the context of the ancient Near East.

314. The Books of Moses.
Cr. 3. A study of the Pentateuch with emphasis on Israel's understanding of the beginning, the history of the patriarchs, the exodus, the wilderness wanderings, and the preparation for entering the promised land.

315. Psalms and Prayers of Ancient Israel.
Cr. 3. A study of the prayers in the Book of Psalms, with attention to the language and dynamics of prayer. Use is made of form-critical results in the study of the psalms.

316. The Prophets of Israel.
Cr. 3. A study of the role of the prophets in Israelite religion. Special attention is given to the historical origins of the prophetic movement, its impact on Israel's political, social and religious life, and the continuing significance of the prophetic message in Jewish and Christian thought.

Cr. 3. A study of the New Testament church in its social, political, and religious environment that will focus on class, gender, race, and other key issues: Jewish-Gentile relations, anti-Semitism, slave and master; wealth and poverty; the status and authority of women.

318. Jesus and the Gospels.
Cr. 3. A comparative study of the New Testament gospels with a focus on the uniqueness of each in its presentation of the story of Jesus.


CHURCH HISTORY

321. Early Christianity.
Cr. 3. A study of major events, themes and developments in the history of the church in the period beginning with the ministry of Jesus and the Apostles and ending about 500 A.D.

322. Reformation Christianity.
Cr. 3. A study of the impact of the theology of the Protestant reformers on the church with special emphasis on the work of Martin Luther.

323. History of Christianity Since the Reformation.
Cr. 3. A study of the history of Christianity from 1650 to the present.

324/524. The American Religious Experience.
Cr. 3. An investigation of American religious thought with special emphasis on the interaction between religion and cultural development.

325. History of Lutherans in America.
Cr. 3. A survey of the history of American Lutherans from colonial times to the present, with emphasis on the nineteenth century immigrations and twentieth century trends.

326. History of Women in the Church.
Cr. 3. An investigation from biblical times to the present of theological understandings of women's roles in Christian religious communities and of the cultural contexts that shape such attitudes and practices.

CHRISTIAN THOUGHT

331. Life and Thought of Martin Luther.
Cr. 3. A study of the life of Martin Luther and the structure of his thought.

332. Theology of the Lutheran Confessions.
Cr. 3. A study of the historical background and doctrinal content of the confessions of the Lutheran Church.

333/333. Lutheran Theology.
Cr. 3. A study of the central perspectives of Lutheran theology, with special reference to its Reformation origins and to contemporary issues in North American Lutheranism.

335. Constructing a Working Theology.
Cr. 3. A study of issues and problems encountered in the attempt to construct an ordered and coherent structure of thought about the Christian faith.

Cr. 3. A survey of twentieth century theology, including a study of major currents and of representative works of particular theologians or schools of thought.

337. Black Theology and Black Church.
Cr. 3. A study of Black theological discourse in the United States and Africa. The course focuses on the composite causes of racial oppression and explores the relationship between black theology and "third world" peoples, women's struggles, black families, and, most importantly, the praxis of black church ministry.

338. Holocaust Theology.
Cr. 3. A systematic study of the many issues stemming from the events of the Nazi Holocaust and how those events have affected both Jews and Christians. The course constructs a possible religious and moral response to the evil of the Holocaust.

STUDIES IN ETHICS AND CULTURAL VALUES

341. Introduction to Bio-Ethics.
Cr. 3. (May also be offered as PHIL 341.) A study of the moral issues raised by modern advances in medicine and biological research (e.g., abortion, euthanasia, genetic engineering and health care). Attention is given both to general ethical theory and to the analysis of particular issues.

Cr. 3. A study of how different Christian thinkers have understood the nature and function of government and the relation of the Christian faith to political action.

343/543. Theology of Marriage and Sexuality.
Cr. 3. A systematic study of the many issues stemming from contemporary views of marriage and sexuality, the course will be an opportunity to grapple with a variety of possible theological views, test views with concrete experiences and real issues, and begin the process of forming a personal viewpoint.

344. Theology and the Scientific World.
Cr. 3. A study of the relationship between religion and science, looking not only at controversial issues but also at the positive dialogue between theologians and scientists. The course will focus on topics like creation and evolution, cosmology and theology, genetics and human uniqueness, etc.

Cr. 3. An exploration of the meaning of Christian faith in dialogue with modern literature, particularly with a view toward understanding the human condition and discovering implicit religious dimensions in representative novels and plays.

CHURCH AND MINISTRY

352. Theology of Christian Education.
Cr. 3. A study of the role of the Christian teacher, the needs of the Christian learner, and the resources of the Christian faith in the educational process. The course is designed for all those who may be involved in some facet of the teaching mission of the Church.

354/554. Understanding Death and Dying.
Cr. 3. An exploration of the biblical meaning of death in relation to contemporary cultural meanings. Each student is encouraged to consider the meaning of his or her own death. Special attention is given to the care of the dying.

355/555. Principles and Forms of Worship.
Cr. 3. A study of the principles and language of worship with emphasis on the theology of worship, ritual, the role of tradition, and the relationship between worship and contemporary culture.

Cr. 3. A study of theological resources and possible strategies for individuals to become involved in serving the victims of such social problems as aging, poverty, deteriorating neighborhoods, criminal justice, alcoholism and physical handicaps.

358. Spiritual Needs and Health Care.
Cr. 3. An examination of the spiritual dimension of health care. Special attention will be given to the assessment and meeting of spiritual needs in the care of oneself and of others.

359/559. Theology of Aging.
Cr. 3. A study of the process of aging from the perspectives of biblical, historical, and practical theology. Attention is given to the spiritual needs of older persons and their potential contribution to church and society.
Theology

451. Theology of Diaconal Ministry.
Cr. 3. A study of the historical and theological foundations of diocesan ministry. Attention is given to the role of the diaconate in the church, the development of diocesan community, and the nurture of a spirituality of service. Prerequisite: junior or senior standing.

453. Clinical Deaconess Education.
Cr. 3. A carefully supervised practicum in ministry to the physically ill and the elderly. Designed principally for senior Deaconess students, this course in practical theology engages student in disciplined reflection on their diaconal ministry. Usually S/U basis. Prerequisite: junior or senior standing.

HISTORY OF RELIGIONS

Cr. 3. Studies of selected topics in Judaism: biblical, rabbinic and contemporary. A student may receive credit for this course more than once, provided that the topics are different. These offerings are sponsored in part by the Jewish Chautauqua Society.

362. Understanding Islamic Religion and Culture.
Cr. 3. A study of the life of Muhammad, the teachings of the Qur'an, traditional practices and institutions in Islamic society, and the significant contemporary developments in the Muslim world.

363. Religions of China and Japan.
Cr. 3. A study of the religious worldview of China and Japan, seen both in the traditional popular religious practices and in the organized religions of Confucianism, Taoism, Buddhism and Shinto. Special attention is given to the expressions of religion in art and to the role of religion in modern China and Japan.

364. The Buddhist Tradition.
Cr. 3. A study of the origins of Buddhism in India, its expansion into and influence on the cultures of Southeast Asia, its special adaptations in China and Japan, and the Buddhist presence in the United States today. Attention is given to the varieties of Buddhist teaching and practice.

365. Religion in Africa.
Cr. 3. A study of religion in Sub-Saharan Africa. Attention is given to the nature and function of religion in the traditional societies and to the modern developments of Christianity and Islam in Africa.

366. Zen and Japanese Culture.
Cr. 3. A study of religion in Japanese culture by focusing on Zen Buddhism and its influence in Japanese culture, especially in traditional arts like poetry, drama, painting, calligraphy, architecture, flowers, and gardening; with special emphasis on chanoyu (the tea ceremony).

367. Encounter with Recent Religious Movements in America.
Cr. 3. First Summer Session only. A study of some of the non-Christian religious groups currently active in the United States, such as Baha’i, Hare Krishna Society, Zen Buddhism, and the Unification Church (i.e., the “Moonies”). Wherever possible, the study of each group is approached through its origin in one of the living world religions. At least one field trip is included.

368. American Indian Religions.
Cr. 3. A study of the most common religious features found in Native American societies north of Mexico. Attention is given both to the older traditions and to the more recent religious developments.

OTHER COURSES

390/590. Topics in Theology.
Cr. 3. As special circumstances and opportunities allow, certain unlisted courses may be announced under this listing. A student may receive credit for this course more than once, provided that the topics are different.

480. Practicum in Ministry.
Cr. 1-3. Field experience in various local agencies, together with reflection on the work being done. This course may not be used to fulfill the Theology component of the General Education Requirement, nor may it be counted toward the theology major or minor. It may be repeated for a maximum of six credits, and is offered only on an S/U basis. Arranged with the Chair of the Department. Prerequisite: junior or senior standing.

481. Basic Homily Preparation.
Cr. 1. A basic introduction to methods of preparing and delivering biblical, liturgical homilies in a variety of worship settings. This course may not be counted toward the theology major or minor. It may be repeated for a maximum of two credits, and is offered on an S/U basis. Prerequisite: junior or senior standing.

493. Theology Seminar.
Cr. 3. Advanced study of selected areas or issues in the discipline of theology. Varied listings are announced. Prerequisites: senior standing and consent of the Chair of the Department.

495. Supervised Reading and Research.
Cr. 1-3. An opportunity for students to read a number of significant works on a given topic in theology, or to do research on a topic which is not covered in any scheduled course offerings of the Department and to write a major paper. Prerequisites: junior standing, 12 credit hours in theology, and consent of the Chair of the Department.

497. Honors Work in Theology.
Cr. 3. See Honors Work, page 48.

498. Honors Candidacy in Theology.
Cr. 3. See Honors Work, page 48.

CHRIST COLLEGE

THE HONORS COLLEGE

Mark R. Schewein, Ph.D., Dean
Margaret Franson, M.A.L.S., Assistant Dean

Professors Lee, Olmsted, Piehl, Scheweih; Associate Professor Contino; Assistant Professors Elder, Kerr;

Christ College is the honors college of Valparaiso University. Established in 1967, Christ College celebrates more than a quarter century of providing an honors-level liberal arts curriculum dedicated to the study and practice of the basic arts of inquiry and committed to educational processes that enable students to achieve a measure of intellectual independence.

Christ College students are concurrently enrolled in one of the University's undergraduate Colleges—Arts and Sciences, Business Administration, Engineering, and Nursing—where they earn their bachelor's degrees. Study in Christ College complements all academic programs, providing stimulating interdisciplinary study in the humanities with master teacher-scholars and academically talented students. Many Christ College courses fulfill the University's General Education Requirements.

Completion of a program of study in Christ College leads to graduation with the honors designation Christ College Associate or Christ College Scholar. A student may also earn a complementary major or an academic minor in Christ College humanities coursework. Requirements for these programs are described in detail on pages 153-154.

Christ College provides an environment where human thought and feeling are themselves objects of description, explanation, and evaluation, and where students discover their personal freedom by becoming increasingly confident in the critical arts of interpretation and judgment. By grounding its curriculum firmly in the best works of thought and culture, Christ College seeks to develop in its students intellectual skills and arts of sound judgment so that they become generally educated human beings with the capacity to sustain the life of the mind beyond graduation.

The College takes its name from respected...
ADMISSION AND MEMBERSHIP IN CHRIST COLLEGE

Freshman Admission. To be considered for membership in Christ College beginning in the freshman year, students must first be admitted to Valparaiso University. Admitted students with superior academic records, strong SAT or ACT scores, proven leadership in extra-curricular activities, and a measure of curiosity and creativity are invited by the Dean of Christ College to apply for the honors program. Between 60 and 80 freshmen are accepted into the Christ College Freshman Program each fall.

The Christ College Freshman Program (CC 110: Text and Contexts I and CC 115: Texts and Contexts II) includes a two semester course in the great traditions of humankind with readings in history, literature, philosophy, and religion from the earliest recorded thought to the present day. Coursework emphasizes close reading, thoughtful discussion, and critical writing. Special Freshman Program activities include drama, music, and debate.

Upperclass Admission. Students with superior records of academic achievement may be invited to join Christ College later than the start of the freshman year at the Dean’s discretion. For example, some sophomores are admitted to Christ College each fall. These students enroll in sophomore level Christ College courses and begin the pursuit of Christ College Associate and Christ College Scholar graduation distinctions.

Still other students enroll in one or more courses offered by the College, but do not pursue honors program designations. Such enrollment is subject to the approval of the Dean and limited only by class size.

Any Valparaiso University student—whether or not he or she is a member of Christ College—may pursue a complementary major or a minor in humanities through Christ College coursework.

Membership in Christ College. A student formally admitted to Christ College in order to pursue a Scholar or Associate distinction is designated a member of Christ College. Once admitted to membership, the student’s status is periodically reviewed by the faculty to determine whether the student is satisfying the standards and requirements of Christ College. These requirements include satisfactory academic progress toward the College’s stated goals and contribution to the common life of the College and the University.

Even when students are not directly involved in the courses offered by the College, they shall contribute to the College’s common life, partly through their relationship with an adviser and partly through membership in the Christ College Symposium which meets regularly.

The Dean and the faculty take an interest in the total program of each member. Accordingly, the Dean may authorize certain variations in the normal academic requirements of a student if such variations seem desirable. For example, the Dean may permit a student to carry extra credit hours, to waive prerequisites for advanced courses, to acquire academic credit through examination, and to waive certain University requirements if such waivers are justified. In general, the faculty may tailor a program to meet a student’s interests and needs within the general framework of the University’s objectives.

Membership in Christ College is never terminated by the mechanical application of arbitrary criteria such as cumulative grade point average or the student’s academic record for a particular semester. In general, a Christ College student should expect to maintain an average grade of 3.30 or better. Members of the College are normally required to meet, by course examination or other evidence of qualification, the regular requirements for graduation except where explicitly modified. The Dean of Christ College may recommend such adjustments in these requirements as are in the spirit of the University’s requirements and in the best interests of the student.

ACADEMIC ADVISING AND APPROVAL OF COURSE SCHEDULES

Advising of students pursuing programs in Christ College is under the general direction of the Assistant to the Dean. Christ College freshmen are usually advised by a member of the Christ College faculty. Sophomores, juniors, and seniors are advised by the Assistant to the Dean, with faculty members available to consult at any time.

Students are encouraged to confer regularly with their Christ College advisers to select courses, to meet University and College graduation requirements, to assure orderly progress in their chosen programs, and to assist in career planning and related matters.

In addition to a Christ College adviser, students have an adviser in the other college in which they are simultaneously enrolled, and are expected to confer regularly with that adviser as well.

It is each student’s responsibility to know curriculum requirements, academic policies, deadlines for academic actions, and Christ College membership criteria.

PROGRAMS OF STUDY

Completion of the degree requirements of the college in which the Christ College student is concurrently enrolled leads to the bachelor’s degree appropriate to that college. In addition, a member of Christ College, by meeting the appropriate requirements, may graduate as a Christ College Scholar or Christ College Associate. The transcript carries the notation along with an explanation of its meaning.

Christ College students as well as students who are not members of Christ College may pursue a complementary major in humanities or a minor in humanities through the College.

Christ College Scholar. The requirements for this designation are:

1. Membership in Christ College for a minimum of three semesters.
2. A cumulative grade point average of 3.30 in all coursework completed at the University and in all coursework completed in Christ College for the Scholar designation.
3. A minimum of 22 credit hours beyond the Christ College Freshman Program courses CC 110 and CC 115. A student who enters the College after the freshman year and who has not taken CC 110 and CC 115 is required to take one additional 3 credit seminar (CC 300 or CC 325). Students may not choose the S/U grading option for coursework beyond CC 110 in any course used to fulfill the requirements for Scholar designation.

Program course includes:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC 110</td>
<td>Texts and Contexts I</td>
<td>8 Cr.</td>
</tr>
<tr>
<td>CC 115</td>
<td>Texts and Contexts II</td>
<td>8 Cr.</td>
</tr>
<tr>
<td>CC 205</td>
<td>Word and Image</td>
<td>4 Cr.</td>
</tr>
<tr>
<td>CC 215</td>
<td>The Christian Tradition</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>CC 325</td>
<td>Seminar</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>CC 499</td>
<td>Colloquium</td>
<td>1 Cr.</td>
</tr>
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</table>

One course selected from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC 250</td>
<td>Interpretation in the Humanities</td>
<td>4 Cr.</td>
</tr>
<tr>
<td>CC 260</td>
<td>Interpretation in the Social Sciences</td>
<td>4 Cr.</td>
</tr>
<tr>
<td>CC 270</td>
<td>Interpretation in the Natural Sciences</td>
<td>4 Cr.</td>
</tr>
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</table>

Two courses selected from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC 300 or CC 325 Seminar</td>
<td>3 Cr.</td>
<td></td>
</tr>
<tr>
<td>CC 300 or CC 325 Seminar</td>
<td>3 Cr.</td>
<td></td>
</tr>
<tr>
<td>CC 355</td>
<td>Inquiry in the Liberal Arts</td>
<td>3 Cr.</td>
</tr>
</tbody>
</table>

An approved off-campus study program.
Christ College Associate. The requirements for this designation are:
1. Membership in Christ College for a minimum of three semesters.
2. A cumulative grade point average of 3.30 in all coursework completed at the University and in all coursework completed in Christ College for the Associate designation.
3. A minimum of 14 credit hours beyond the Christ College Freshman Program courses CC 110 and CC 115. A student who enters the College after the freshman year and who has not taken CC 110 and CC 115 is required to take one additional 3 credit seminar (CC 300). Students may not choose the S/U grading option for coursework beyond CC 110 in any course used to fulfill the requirements for Associate designation.

Required coursework includes:

**CC 110 Texts and Contexts I** 8 Cr.
**CC 118 Texts and Contexts II** 8 Cr.
**CC 215 The Christian Tradition** 3 Cr.
**CC 499 Colloquium** .

One course selected from:

**CC 205 Word and Image** 4 Cr.
**CC 250 Interpretation in the Humanities** 4 Cr.
**CC 260 Interpretation in the Social Sciences** 4 Cr.
**CC 270 Interpretation in the Natural Sciences** 4 Cr.

Two courses selected from:

**CC 300 or 325 Seminar** 3 Cr.
**CC 300 or 325 Seminar** 3 Cr.
**CC 499 Colloquium** 1 Cr.

A course used to fulfill the requirements of a complementary major in humanities may not be used to fulfill the requirements of any other major or minor.

**Required coursework includes:**

**CC 250 Interpretation in the Humanities** 4 Cr.
**CC 260 Interpretation in the Social Sciences** 4 Cr.
**CC 455 Inquiry in the Liberal Arts** 3 Cr.
**CC 499 Colloquium** 1 Cr.

A course used to fulfill the requirements of a minor in humanities may not be used to fulfill the requirements of any other major or minor.

**Complementary Major in Humanities.** The complementary major in humanities is ordinarily pursued in conjunction with the Christ College Scholar program of studies, but may be pursued independently from the Scholar requirements. Any student, whether or not a member of Christ College, may earn a complementary major in humanities.

The complementary major in humanities requires a minimum of 24 credit hours in Christ College courses.

Required coursework includes:

One course selected from:

**CC 250 Interpretation in the Humanities** 4 Cr.
**CC 260 Interpretation in the Social Sciences** 4 Cr.
**CC 300 or 325 Seminar** 3 Cr.
**CC 499 Colloquium** 1 Cr.

An approved off-campus study program

**Course Offerings**

The Freshman Program

**CC 110. Texts and Contexts I: Traditions of Human Thought.** Cr. 8. This course offers an opportunity for in-depth study of great works in world traditions through the sixteenth century. The close reading of primary texts is accompanied by a survey of the wider aspects of the human thought. Readings are drawn from the areas of history, literature, philosophy, and religion. Advisory grades (A-F) are given throughout the semester, but the final grade is SU.

**CC 115. Texts and Contexts II: Traditions of Human Thought.** Cr. 8. A continuation of CC 110. The first seven weeks focus on the sixteenth through eighteenth centuries. The second seven weeks are devoted to seminars on topics drawn from the modern period. Each student conducts a major investigation of a problem to be formulated in the seminars.

**Sophomore-Junior-Senior Curriculum**

**CC 201. Christ College Symposium.** Cr. 0. Presentations and discussions of items and topics of special interest to members of the Christ College community. Christ College sophomores, juniors, and seniors are expected to register for the course and to attend each gathering except in cases of insolvable conflicts. Only Christ College members may register for the course, but all students are welcome to attend. S/U grade.

**CC 205. Word and Image.** Cr. 4. A study of selected literary and intellectual texts, with special emphasis on the relationship of these texts to contemporary works of art. These classic texts are read, analyzed, and discussed in seminar settings, supplemented by plenary sessions devoted to lectures and discussions on paintings. Prerequisites: CC 115 or ENGL100, and consent of the Dean.

**CC 215. The Christian Tradition: Doubt, Belief and Disbelief.** Cr. 3. A study of one or more major topics in the history of Christian thought, with attention to the ways that these topics have been addressed by the Scriptures, classics in theological discourse, and other significant writings. Prerequisites: CC 115 or THEO 100, and consent of the Dean.

**CC 250. Interpretation in the Humanities.** Cr. 4. An introductory study of interpretation through the examination of selected primary materials in the humanities. Specific questions of interpretative intention, of the place of language, symbol, and tradition in society, of audience expectation and response, of appropriate modes of inquiry and methods of validation, and the role of participant-observer are considered in the context of recent theory and practice on a variety of topics. Prerequisite: consent of the Dean.

**CC 260. Interpretation in the Social Sciences.** Cr. 4. An introductory study of interpretation in the social sciences designed to improve the ability to understand the men and women who inhabit or who have inhabited the world of human Science. Students are welcome to attend. S/U grade.

**CC 270. Interpretation in the Natural Sciences.** Cr. 4. A study of some basic interpretive problems in several areas including, for example, psychology, anthropology, and history. Primary research as well as secondary research is required. Prerequisite: consent of the Dean.

**CC 300. Seminar.** Cr. 3. Each semester Christ College offers seminars dealing with themes of social, intellectual, cultural, spiritual, or artistic importance. These courses are often interdisciplinary in nature. Seminars may be cross-listed with academic departments in other colleges of the University. Seminars may be focused on topics, historical periods, or persons, but are not limited to these designations. Recent seminar titles include:

- African Politics and Literature
- Ethical Reflection and Modern Literature
- Eugene O'Neill: Tragedy on the American Stage
- Inventing the Body
- James Agee and Dorothy Day
- Love and Friendship
- The Sacred Text in Chinese Taoism
- Twentieth Century Russia: Politics, Culture, Religion
- Udpine, DeVries, and Contemporary America
- Wordsworth and Hardy

CC 300 may be repeated with different seminar topics. Prerequisites: open to sophomores, juniors, and seniors, including students who are not members of Christ College, and consent of the Dean.

**CC 325. Seminar.** Cr. 3. Same as CC 300, except course may be intensified to 4 credits with the consent of the instructor. A student who takes the course for 4 credits will produce a honors thesis on one aspect of the seminar topic in place of one of the regularly assigned papers and the final examination. As a general rule only students with junior or senior standing will be permitted to intensify this course.

**CC 455. Inquiry in the Liberal Arts.** Cr. 3. A course in the theory and practice of the liberal arts. Students in this course collaborate with instructors as tutorial assistants in other courses offered by the College. Prerequisites: CC 110 or CC 115, and consent of the Dean.

**CC 495. Independent Study Project.** Cr. 2-6. A special independent study project arranged with a member of the faculty. Approval of this project must be obtained from the faculty mentor and the Dean of the College prior to registration. Forms for this project are available from the Dean's Office.

**CC 499. Colloquium.** Cr. 1. A capstone, integrative colloquium for seniors offered under the direction of the Christ College faculty in which students explore the relationship between faith and contemporary culture and/or refine their understandings of their own spiritual journeys through autobiographical narrative. Prerequisite: senior standing and consent of the Dean.
The College of Business Administration offers two degrees: a Bachelor of Science in Accounting and a Bachelor of Science in Business Administration with majors in accounting, decision science, finance, international business, management, and marketing. Accreditation. The college's degree programs are fully accredited by the American Assembly of Collegiate Schools of Business (AACSB). AACSB is recognized by the Commission on Recognition of Post Secondary Accreditation as the sole accrediting agency for degree programs in business administration and accounting. Only twenty-two schools in the entire nation which focus exclusively on undergraduate business education have earned AACSB's prestigious professional accreditation.

Objectives. The increasing size and complexity of business organizations and the changing economic, political, legal and social environments worldwide require that business students learn to approach problems from the viewpoint of many disciplines. As reflected in its Mission Statement, the major objectives of the College of Business Administration and its faculty are:

1. To provide a quality education, broadly grounded in the liberal arts and sciences, in a personalized environment for undergraduate students by preparing them for careers in business;
2. As part of a Lutheran university, to emphasize the responsibilities of Christians in business;
3. As responsible professionals, to serve campus, local and global communities, and church;
4. And to engage in scholarly work which enhances or improves teaching or contributes to knowledge in professional business disciplines.

The curriculum in general education assures each student exposure to a broad range of disciplines, problem-solving techniques and methods of inquiry. The business curriculum likewise introduces students to opportunities which help develop concepts, tools of analysis and techniques of evaluation which serve as a foundation for their growth into competent and ethically responsible business men and women prepared for professional work in the global environment. Such a philosophy is particularly appropriate for undergraduate education in business, which, though it properly concerns itself with preparation for multiple careers in professional life, must also concern itself with preparation for life in general.

The Major Field. The business core provides a background in the production and marketing of goods and/or services and the financing of the business enterprise; it builds on the knowledge gained in the general education component. The student becomes familiar with accounting and quantitative methods that have application to the solution of business problems. Attention is given to ethical and social issues that confront modern business organizations within an integrative, capstone, policy-determination course. In addition to taking certain prescribed courses in the core, the student must complete the requirements for the degree in accounting or the major in accounting, decision science, finance, international business, management, or marketing for the degree in business administration. The requirements for each major are set forth in the curriculum described on pages 160-161.

Each of the two degrees requires that the students devote approximately one-half of their time to required and elective courses outside the College of Business Administration. The required courses include English, theology, the natural sciences, mathematics, and social and behavioral sciences. Students will select nonbusiness electives from courses outside the College of Business Administration. Students often choose elective courses in those areas which provide support to their professional program.

Minor in Business Administration. The College offers this minor for non-business students who desire a more advanced preparation in a business minor than is provided by the Liberal Arts Business Minor. See page 191 for more information and for the requirements.

Credit by Examination. Credit for ACC 205 may be earned through the College Level Examination Program subject examination in Introductory Accounting.

Credit for MGT 304 for non-business majors only may be earned through the College Level Examination Program subject examination in Principles of Management.

Credit for MKT 304 for non-business majors only may be earned through the College Level Examination Program subject examination in Principles of Marketing.

Minors for Business Students. In addition to minors in programs outside the College of Business Administration, business students may complete the requirements for an interdisciplinary minor either in International Business and Global Studies (available to business students only, see page 161), or in Manufacturing Management (available to both business and engineering students, see page 192), or in Applied Statistics (see page 187).

A business student may declare a minor in the College of Arts and Sciences. No more than two courses of specified nonbusiness courses required for a College of Business Administration degree may be used in fulfilling the requirements of a minor. Students must earn a 2.00 grade point average in a minor for it to be noted on the student's official academic record.

Honors College. The College of Business Administration encourages those students who are qualified to participate in the Christ College Honors program. Business students enrolled in Christ College also have an adviser in Christ College. A College of Business Administration student in Christ College may graduate either as a Christ College Scholar or as a Christ College Associate (see pages 153-154).

Double Major in the College of Business Administration. Students may earn a double major by completing all the requirements for two majors. No course used to fulfill the requirements for one major (including major field requirements) may be used to fulfill requirements for a second
Small Business Institute Program. The Small Business Institute Program is a practicum in which students participate as a member of a team of student consultants on actual small business cases. Enrollment is limited by the number of cases. All consultant activities are performed by the students, under supervision of the faculty coordinator. Students receive three credits and letter grades in the SBI Program.

Admission. The general requirements for admission to the University and to the College are found on pages 198-199 of this catalog.

Transfers. Students currently enrolled at Valparaiso University and wishing to transfer into the College of Business Administration, as well as those from other universities who wish to enter, must have a minimum cumulative grade point average of 2.00. Transfer students should refer to page 202 regarding theology requirements and to page 11 for the Freshman Studies requirement.

Freshman or sophomore transfer students who have completed business courses do not automatically receive upper division transfer credit. Evaluation of such credit is made by the Dean’s office. Any course work completed at other colleges or universities with a grade lower than C does not transfer.

Progression Policy. For advancement to enroll in courses 306 or above in the College, a student must complete a minimum of 56 credit hours with an overall cumulative grade point average of at least 2.00 and a grade point average of 2.00 in all business courses.

Progression Standards. To remain in good academic standing in the College of Business Administration a student must maintain a minimum cumulative grade point average of 2.00 in all course work, 2.00 in all business courses, and 2.00 in the specified courses in the major.

Graduation Requirements. To be eligible for the Bachelor of Science in Accounting degree or Business Administration degree, a student must complete one of the prescribed curricula found on the following pages. The student must also satisfy the upper division grade point requirements stated above and must meet all additional requirements for graduation established by the University (see pages 209-210 in this catalog).

S/U Grading Option. Business students may not take business courses using the S/U grade option, unless the course is only graded on the SU basis. This option is permitted in all non-business courses except MATH 122 and 124, ECON 221, and 222 or 223, and any non-business course used in the International Business and Global Studies, Manufacturing Management, or Applied Statistics minors. See page 204 for a complete explanation of the SU grading option.

Advisement. Advisement of students admitted to the College is under the direction of the Adviser Coordinator who assists freshmen and sophomores in selecting courses and interpreting the requirements for an orderly progression toward a degree. In addition, faculty members assist business students for both course selection and advisement. It is each student's responsibility to know curriculum requirements, prerequisites for courses, academic policies and procedures, and deadline dates.

STUDENT ORGANIZATIONS

Students are encouraged to join one or more of the following College of Business Administration organizations.

Kappa Phi Chapter of Delta Sigma Pi. This selective professional business fraternity of men and women worldwide has been organized to foster the study of business in universities, encourage scholarship and social activity and to promote closer affiliation between the commercial world and students of business.

Accounting Society. The Society's objectives are to promote professional excellence in the field of accounting, to inform and educate members about career options, to provide opportunities for association between members of the Society and practicing accountants, and to encourage the development of ethical, social and public responsibility. Membership in the Society is open to all students interested in pursuing careers in accounting.

SHRM. SHRM is a professional association organized to provide its members with assistance in their professional development, to stimulate research in the profession, and to promote leadership in establishing and supporting standards of professional excellence.

Financial Management Association. The organization promotes scholarship and professionalism within the field of finance.
**COURSES COMMON TO BOTH DEGREE PROGRAMS IN THE COLLEGE OF BUSINESS ADMINISTRATION**

The College of Business Administration offers two degree programs—the Bachelor of Science in Accounting and the Bachelor of Science in Business Administration. Courses specifically required in either degree program are listed under the degree program descriptions following the General Education and Business Core requirements.

The following courses are common requirements for both the B.S. in Accounting and the B.S. in Business Administration degrees:

### GENERAL EDUCATION

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEO 100 Introduction to Theology</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>ENGL 100 Exposition and Argument</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>HIST 100 The Western World in Global Perspective</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>FS 100 Freshman Seminar</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>Total</td>
<td>12 Cr.</td>
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### Academic Area Studies

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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>THEO Level II and Level III</td>
<td>6 Cr.</td>
</tr>
<tr>
<td>ENGL 200 Literacy Studies</td>
<td>4 Cr.</td>
</tr>
<tr>
<td>MATH 122 Intuitive Calculus</td>
<td>4 Cr.</td>
</tr>
<tr>
<td>MATH 124 Finite Mathematics</td>
<td>4 Cr.</td>
</tr>
<tr>
<td>ECON 221 Economics - Micro</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>ECON 222 Economics - Macro or</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>ECON 223 Economics - International</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>Global Cultures and Perspectives</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>Social Analysis</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>Natural Science (with lab)</td>
<td>4 Cr.</td>
</tr>
<tr>
<td>PSY 110 and 111, Behavioral Science</td>
<td>4 Cr.</td>
</tr>
<tr>
<td>Non-business Electives (Note 1)</td>
<td>6-12 Cr.</td>
</tr>
<tr>
<td>PE 101-105</td>
<td>1 Cr.</td>
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<td>45-61 Cr.</td>
</tr>
<tr>
<td>General Education</td>
<td>57-63 Cr.</td>
</tr>
</tbody>
</table>

**Notes:**
1. Non-business electives for the B.S. in Accounting degree are 12 credits; for the B.S. in Business Administration degree: Accounting, 9 credits; International Business, 14 foreign language credits, for all other majors, 6 credits.
2. No more than four credits combined from performance music, ensemble music, and PE 101-149 may be applied toward a degree. With the exception of one credit of the general education requirement of PE 101-106, PE courses are free elective credits only.
3. No more than six credits from cooperative education and/or internship may be applied toward the degree; they are free elective credits only.
4. The University requirement in Studies in U.S. Diversity is met by courses BS 204, 205, 470 and other selected business courses.

### BUSINESS CORE

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC 205 Financial Accounting</td>
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</tr>
<tr>
<td>ACC 206 Managerial Accounting</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>DS 205 Business Statistics</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>MGT 206 Legal Environment of Business</td>
<td>3 Cr.</td>
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<tr>
<td>Total</td>
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### Junior Core Courses

<table>
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</thead>
<tbody>
<tr>
<td>MGT 304 Management and Organizational Behavior</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>FIN 304 Financial Management</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>MGT 306 Marketing Management</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>Total</td>
<td>9 Cr.</td>
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</tbody>
</table>

### Junior/Senior Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS 305 Production-Operations Management</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>DS 410 Management Information Systems</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>MGT 475 Business Policy and Strategy</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>Total</td>
<td>9 Cr.</td>
</tr>
<tr>
<td>Grand Total</td>
<td>30 Cr.</td>
</tr>
</tbody>
</table>

**BACHELOR OF SCIENCE IN ACCOUNTING**

The 150 hour Bachelor of Science in Accounting degree prepares students for professional careers in public accounting and satisfies the CPA examination requirements for many of the states that have such requirements or require students to take one of the three electives.

### MAJOR REQUIREMENTS

**Professional Accounting Communication Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 145 Interpersonal Communication</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>ENGL 300 Introduction to Professional Communication</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>Liberal Arts Elective Writing Requirement</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>Total</td>
<td>9 Cr.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 210 Introductory Accounting Lab</td>
<td>1 Cr.</td>
</tr>
<tr>
<td>ACC 301 Seminar in the Accounting Profession I</td>
<td>0.5 Cr.</td>
</tr>
<tr>
<td>ACC 302 Seminar in the Accounting Profession II</td>
<td>0.5 Cr.</td>
</tr>
<tr>
<td>ACC 310 Intermediate Financial Accounting I</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>ACC 311 Intermediate Financial Accounting II</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>ACC 320 Cost Accounting</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>ACC 330 Accounting Information Systems</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>ACC 340 Governmental and Not-For-Profit Accounting</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>ACC 350 Concepts of Tax Accounting</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>ACC 410 Advanced Accounting</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>ACC 470 Auditing</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>MGT 281 Cooperative Education in Business or MGT 481 Internship in Administration</td>
<td>2 Cr.</td>
</tr>
<tr>
<td>MGT 410 Business Law</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>Accounting Electives</td>
<td>6 Cr.</td>
</tr>
<tr>
<td>Major field requirement</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>Total</td>
<td>40 Cr.</td>
</tr>
<tr>
<td>Free electives (Note 2 and 3)</td>
<td>8 Cr.</td>
</tr>
<tr>
<td>Grand Total</td>
<td>160 Cr.</td>
</tr>
</tbody>
</table>

**BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION**

Students who choose the Business Administration degree may select from six majors: Accounting, Decision Science, Finance, Management, Marketing, or International Business.

### ACCOUNTING MAJOR

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 210 Introductory Accounting Lab</td>
<td>1 Cr.</td>
</tr>
<tr>
<td>ACC 301 Seminar in the Accounting Profession I</td>
<td>0.5 Cr.</td>
</tr>
<tr>
<td>ACC 302 Seminar in the Accounting Profession II</td>
<td>0.5 Cr.</td>
</tr>
<tr>
<td>ACC 310 Intermediate Financial Accounting I</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>ACC 311 Intermediate Financial Accounting II</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>ACC 320 Cost Accounting</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>ACC 330 Accounting Information Systems</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>ACC 350 Concepts of Tax Accounting</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>Total</td>
<td>17 Cr.</td>
</tr>
<tr>
<td>Degree completion requirement</td>
<td>9 Cr.</td>
</tr>
<tr>
<td>Select three non-core upper division business courses</td>
<td>9 Cr.</td>
</tr>
<tr>
<td>Free Electives (Notes 2 and 3)</td>
<td>9 Cr.</td>
</tr>
<tr>
<td>Grand Total</td>
<td>125 Cr.</td>
</tr>
</tbody>
</table>

### DECISION SCIENCE MAJOR

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS 320 Management Science</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>DS 340 Statistics for Decision Making</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>DS 420 Decision Support and Expert Systems</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>DS 493 Seminar in Applied Statistics</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>MGT 310 Marketing Research</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>Total</td>
<td>15 Cr.</td>
</tr>
<tr>
<td>Degree completion requirement</td>
<td>9 Cr.</td>
</tr>
<tr>
<td>Select three non-core upper division business courses</td>
<td>9 Cr.</td>
</tr>
<tr>
<td>Free Electives (Notes 2 and 3)</td>
<td>14 Cr.</td>
</tr>
<tr>
<td>Grand Total</td>
<td>125 Cr.</td>
</tr>
</tbody>
</table>

### FINANCE MAJOR

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 330 Management of Financial Institutions</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>FIN 410 Finance Theory and Practice</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>FIN 420 Investment Management</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>FIN 470 Financial Strategy and Policy</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>DS/MATH 340 Statistics for Decision Making</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>Total</td>
<td>15 Cr.</td>
</tr>
<tr>
<td>Degree completion requirement</td>
<td>9 Cr.</td>
</tr>
<tr>
<td>Select three non-core upper division business courses</td>
<td>9 Cr.</td>
</tr>
<tr>
<td>Free Electives (Notes 2 and 3)</td>
<td>14 Cr.</td>
</tr>
<tr>
<td>Grand Total</td>
<td>125 Cr.</td>
</tr>
</tbody>
</table>

### INTERNATIONAL BUSINESS MAJOR

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 430 International Business</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>MGT 440 International Management</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>MGT 450 International Marketing</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>MGT 326 International Economics or ECON 336 Economics of Developing Nations</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>Total</td>
<td>15 Cr.</td>
</tr>
<tr>
<td>Degree completion requirement</td>
<td>9 Cr.</td>
</tr>
<tr>
<td>Select three non-core upper division business courses</td>
<td>9 Cr.</td>
</tr>
<tr>
<td>Free Electives (Notes 2 and 3)</td>
<td>14 Cr.</td>
</tr>
<tr>
<td>Grand Total</td>
<td>125 Cr.</td>
</tr>
</tbody>
</table>

### MARKETING MAJOR

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 310 Marketing Research</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>MGT 320 Sales Management</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>MGT 330 Buyer Behavior</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>MGT 470 Marketing Strategy and Policy</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>DS/THE 340 Statistics for Decision Making</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>Total</td>
<td>15 Cr.</td>
</tr>
<tr>
<td>Degree completion requirement</td>
<td>9 Cr.</td>
</tr>
<tr>
<td>Select three non-core upper division business courses</td>
<td>9 Cr.</td>
</tr>
<tr>
<td>Free Electives (Notes 2 and 3)</td>
<td>14 Cr.</td>
</tr>
<tr>
<td>Grand Total</td>
<td>125 Cr.</td>
</tr>
</tbody>
</table>

### INTERNATIONAL BUSINESS AND GLOBAL STUDIES MINOR

**Administrative Committee:**
Associate Professor Stück, Assistant Professor Trapp.

**Intercollegiate Advisory Committee:**
Department Chairs of Economics, Foreign Languages and Literatures, Geography, History, and Political Science.

The interdisciplinary minor in International Business and Global Studies is available to business students only. It provides the opportunity for students to focus on the interdependent global environment in which business is being carried out. The rapid global changes affecting the business world can best be understood through a cross-disciplinary approach involving the study of international business and economics as well as modern languages and selected courses from the liberal arts curriculum.

A total of 23 credit hours is required to complete the minor.

### Required Core Courses

Complete any three from the following five areas of international business or economics course options:

- MGT 430 International Environment of Business | 3 Cr.
- MGT 440 International Management: Cross-Cultural Perspectives | 3 Cr.
- MGT 310 Managing Human Resources | 3 Cr.
- MGT 325 Human Resource Development | 3 Cr.
- MGT 425 Managing Change in Contemporary Organizations | 3 Cr.
- MGT 440 International Management: Cross-Cultural Perspectives | 3 Cr.
- MGT 470 High Performance Organizations | 3 Cr.
- MGT 310 Managing Human Resources | 3 Cr.
- MGT 325 Human Resource Development | 3 Cr.
- MGT 425 Managing Change in Contemporary Organizations | 3 Cr.
### ACCOUNTING

#### ACC 205. Financial Accounting.
Cr. 3. A study of basic accounting theory and practice, the nature of assets and equity, income measurement, and financial statement preparation. Prerequisite: sophomore standing.

#### ACC 206. Managerial Accounting.
Cr. 3. A study of the analysis and use of accounting data to manage enterprises. Topics include cost-volume-profit relationships, external financial budgeting, standard costing, segment reporting, and product costing methods. Prerequisite: ACC 205.

#### ACC 210. Introductory Accounting Lab.
Cr. 1. Computer-aided instruction of the procedural accounting skills required for professional accountants. Prerequisite: ACC 205 or permission of the instructor.

### DECISION SCIENCE

Cr. 3. A course in the elements of statistical inference and the application of statistical methods to business problems. Content includes probability theory, probability distributions, descriptive statistics, sampling distributions, parameter estimation, tests of hypotheses, and simple regression and correlation. Prerequisites: MATH 124 or 131 or 151.

#### DS 290/390/490. Topics in Decision Science.
Cr. 1-3. A detailed examination of selected topics pertinent to the field of decision science to be offered when sufficient interest and staffing are available. Permission of the instructor or Dean required. Prerequisites will vary depending on topics being covered.

### MODERN FOREIGN LANGUAGE REQUIREMENT

Two courses in one language sequence are required.

#### East Asian Region
- FLJ 101 and 102 or
- FLJ 103 or
- FLJ 109 and 110

#### European Region
- FLJ 102 and 103 or
- FLG 102 and 103 or
- FLS 102 and 103

#### Latin American Region
- FLS 102 and 103

#### General International Track
Two courses from any of the single language sequences listed above are required.

### INTERNATIONAL ELECTIVE TRACKS

One track is required.

#### East Asian Region
Choose two of the following courses: GEO 314, HIST 240, 241, 341, 342, THEO 363.

#### European Region
Choose two of the following courses: GEO 312, HIST 313, 315.

#### Latin American Region
Choose two of the following courses: GEO 311, HIST 230, 231.

#### General International Track
Choose one course from two different groups:
- GEO 101 or 102
- HIST 210
- POLS 130 or 230
- POLS 330 or 335

### INTERNATIONAL STUDY ABROAD TRACK
Six credits of area studies approved by the Administrative Committee.
FINANCE

FIN 282. Personal Finance.
Cr. 3. An overview of personal and family financial management with an emphasis on budgets, tax management, credit management, investment selection, insurance selection, retirement planning and estate planning. Business majors may take this course only as a free elective. Prerequisite: sophomore standing.

FIN 290/390/490. Topics in Finance.
Cr. 1-3. A detailed examination of selected topics pertinent to the field of finance to be offered when sufficient interest and staffing are available. Permission of the instructor or Dean required. Prerequisites will vary depending on topics being covered.

FIN 304. Financial Management.
Cr. 3. A survey of the field of financial management. Major topics include the financial environment, working capital management, the time value of money, financial statement analysis, capital structure, valuation of securities, capital budgeting, assessment of risk, and international finance. Consideration is given to these topics as well as to ethical relationships among the firm’s contract holders. Prerequisite: junior standing, ACC 205 and ECON 221.

FIN 308. Financial Management.
Cr. 3. A study of the finance function and management techniques within financial institutions with major emphasis on commercial bank management. Areas covered include acquisition of funds, credit extension, liquidity management, and capital structure. Prerequisite: FIN 304.

FIN 410. Finance Theory and Practice.
Cr. 3. This course studies theories underlying current financial techniques and analyzes contributions of major authors to finance theory. It further studies applications of these theories to contemporary issues such as risk and return measurement, capital structure, capital budgeting, and dividend policy. Prerequisite: FIN 304.

FIN 420. Investment Management.
Cr. 3. A study of security markets and investment types emphasizing methods of analysis for selection of investments. Primary focus is given to the stock and bond markets. Sources of data, portfolio theory, and management of portfolios are discussed. Prerequisite: FIN 304.

FIN 430. International Finance.
Cr. 3. Introduction to the functioning and management of the multinational firm in international markets. Coverage includes international markets, financing and management of risk exposure arising during international operations and trade. Prerequisite: FIN 304.

Cr. 3. An analysis of the financial strategy of the firm with regard to investment and financing decisions. Evaluation of the risk and return of various financial strategies is emphasized. Prerequisites: FIN 304, FIN 410, DCS/MATH 340, plus senior standing.

FIN 485. Independent Study in Finance.
Cr. 1-3. An independent research effort. It requires approval of a research proposal by a member of the college faculty and the Dean. May not be used as a substitute for a course which covers the proposed research area. Prerequisites: approved research proposal and permission of the Dean.

MANAGEMENT

MGT 206. Legal Environment of Business.
Cr. 3. A study of the legal and regulatory climate that has a major impact on the operation of business entities. Attention is directed not only to legal but also to ethical issues confronting the manager in today’s global economy. Prerequisite: sophomore standing.

MGT 290/390/490. Topics in Business.
Cr. 1-3. A detailed examination of selected topics pertinent to the field of business to be offered when sufficient interest and staffing are available. Permission of the instructor or Dean required. Prerequisites will vary, depending on topics being covered.

MGT 304. Management and Organizational Behavior.
Cr. 3. Includes an overview of traditional functions of management but builds on elements of organizational theory and the behavioral sciences. Emphasis on developing interpersonal communication skills and leadership for the improvement of individual and group performance in the total organizational environment. Prerequisites: junior standing, PSY 110, ACC 205 and ECON 221.

MGT 310. Managing Human Resources.
Cr. 3. An introduction to the activities common to the field of human resource management, including human resource planning, job analysis, recruitment, selection, orientation and career development, compensation and benefits, health and safety, performance appraisal and discipline, training and development, and labor-management relations.

MGT 315. Leadership and Interpersonal Skills.
Cr. 3. Describes the nature, dynamics, and parameters of various leadership approaches, with emphasis being placed on contemporary models of leadership. Also, it examines the role of interpersonal skills in leader effectiveness. This course should assist future managers in developing the interpersonal skills they will need in different leadership roles.

Cr. 3. The study and applications of the essential managerial factors of various types of small business, including organizational, environmental and personal factors. It includes exposure to sources of information and assistance for the small business person. Prerequisites: MGT 304, FIN 304 and MKT 304.

Cr. 3. This course focuses on enhancing individual and organizational success through human resource development (HRD) activities. Three major HRD approaches—training, employee development, and career management—are explored. Contemporary HRD issues such as cross-cultural preparation, diversity, developing high potential employees, career planning, work and family, and skills obsolescence are examined.

MGT 381. Cooperative Education in Business I.
Cr. 2. The first cooperative education placement. Prerequisite: approval of the CBA Cooperative Education Coordinator. S/U grade.

MGT 382. Cooperative Education in Business II.
Cr. 2. The second cooperative education placement. Prerequisites: MGT 381 and approval of the CBA Cooperative Education Coordinator. S/U grade.

MGT 383. Cooperative Education in Business III.
Cr. 2. The third and subsequent cooperative education placements. Prerequisites: MGT 382 and approval of the CBA Cooperative Education Coordinator. S/U grade. May be repeated.

Cr. 3. A study of various areas of the law that affect the commercial community. The scope of this course includes the law of contracts, sales, agency, business associations, and issues related to corporate social responsibility. Prerequisite: MGT 206.

MGT 420. Small Business Institute.
Cr. 3. Practicum in which the student participates as a member of a team of student consultants on actual small business cases referred by the Small Business Administration. Enrollment is limited by the number of cases referred by the SBA. All consultant activities are performed by the students, under general supervision of the faculty coordinator. Prerequisite: approval of the SBI Coordinator.

MGT 426. Managing Change in Contemporary Organizations.
Cr. 3. Focuses on managing change in today’s highly dynamic organizational environments. The course explores approaches for managing technology, structure, work teams, and organizational culture within a sociotechnical systems theory framework. Prerequisite: MGT 304.

Cr. 3. A survey course dealing with opportunities and problems encountered in formulating global strategy and managing multinational operations. Focuses on financial, legal, and trade frameworks of international transactions and the major issues involved in managing international business operations.

MGT 440. International Management: Cross-Cultural Perspectives.
Cr. 3. A study of the emerging field of international management as the practice of applying management concepts and processes in a uniquely multinational environment. Emphasis will be placed on culture-based behaviors and cross-cultural comparisons along with the theories which underpin international management principles. Prerequisite: GBUS 304 or permission of the instructor.

MGT 460. Ethics in Business.
Cr. 3. An analysis of the moral bases for ethical decisions and behavior’s ethical aspects in business leadership. Contemporary business conduct is examined in an ethical context. Prerequisite: senior standing.

MGT 470. High Performance Organizations.
Cr. 3. This course focuses on learning to create high performance organizations. The high performing organization is one that provides customers with optimum value, satisfies all stakeholders, and creates an environment where members know more, do more, and contribute more. The goal is to understand what separates the merely ordinary organization from the extraordinary one. Cutting edge theory and practice will be integrated throughout the course. Prerequisite: MGT 304.

Cr. 3. Capstone business course. The development of the advisamentive perspective on management, including establishing and analyzing policy and strategy in various settings, as well as the relationships between administrative decision making and important social and ethical issues. Integrative approach uses case method to explore executive decision making in the global marketplace. Prerequisites: senior standing and completion of all 300-level courses in the upper division core and completion or concurrent registration in D3 410.

MGT 486. Internship in Administration.
Cr. 2. A work experience in which students apply business concepts to situations encountered in actual organizational settings. Prerequisites: senior standing and approval of the CBA Internship Coordinator. S/U grade.
MKT 495. Independent Study in Business Administration.
Cr. 1-3. An independent research effort. It requires approval of a research proposal by a member of the college faculty and the Dean. May not be used as a substitute for a course which covers the proposed research area. Prerequisites: approved research proposal and permission of the Dean.

MARKETING

MKT 290/390/490. Topics in Marketing.
Cr. 1-3. A detailed examination of selected topics pertinent to the field of marketing to be offered when sufficient interest and staffing are available. Permission of the instructor or Dean required. Prerequisites will vary depending on topics being covered.

MKT 304. Marketing Management.
Cr. 3. Emphasis is placed on the ethical application of marketing concepts, theories and principles which relate to product policy, promotional mix decisions, distribution and logistical planning and pricing. The international business environment, including social, cultural, economic, political-legal, competitive and technological variables, is studied and compared with American markets. The areas of buyer analysis, the utilization of marketing information systems, and market planning and analysis are also stressed. Prerequisites: junior standing, ACC 205 and ECON 221.

MKT 310. Marketing Research.
Cr. 3. A course designed to introduce the marketing student to the areas of marketing research and marketing information systems. Coverage of marketing information system design and the marketing research process, including research design and sources of information, data collection methods, sampling procedures, data analysis and interpretation, and the formal research report. Prerequisite: MKT 304 and DS 340.

MKT 320. Sales Management.
Cr. 3. A study of the managerial functions of professional selling to the industrial or organizational buyer. An overview of organizational, economic, and psychological influences on the organization's buying decisions. Emphasis on field and territorial management, recruitment and training of the sales force, sales forecasting techniques, routing, and personal selling principles. Prerequisite: MKT 304 and DS 340.

Cr. 3. An analysis of the psychological, social and economic influences which affect attitude formation and decision-making processes of consumers. An overview of the research methods used for determining characteristics of buyers is included. Prerequisite: MKT 304.

MKT 361. Retailing.
Cr. 3. A study of the contemporary environment of the retailing industry with emphasis on techniques utilized in store location, merchandising, promotion and control. Prerequisites: junior standing and MKT 304.

MKT 362. Advertising.
Cr. 3. An introductory level course taught from a marketing perspective. The areas of market analysis, campaign planning and strategy, media selection and design of advertisements are emphasized. The legal environment of advertising and the role of the different service institutions, such as advertising agencies, are also covered. Prerequisites: junior standing and MKT 304.

MKT 430. International Marketing.
Cr. 3. A study of managerial marketing policies and practices of organizations marketing their products and services in foreign countries. Specific stress will be placed on the relationship between marketing strategy, market structure, and environment. Prerequisite: MKT 304.

MKT 470. Marketing Strategy and Policy.
Cr. 3. Capstone marketing course primarily for students with a concentration in Marketing. It is taught from a marketing management perspective involving case analysis of product policy, pricing, distribution and promotional mix. Prerequisites: MKT 304; two of the following: MKT 310, 320, 330, plus senior standing.

MKT 495. Independent Study in Marketing.
Cr. 1-3. An independent research effort. It requires approval of a research proposal by a member of the college faculty and the Dean. May not be used as a substitute for a course which covers the proposed research area. Prerequisites: approved research proposal and permission of the Dean.

Objectives. Engineering is the art of applying scientific and practical knowledge to the solution of problems for the benefit of people. The College of Engineering seeks to educate leaders who are prepared for lifelong learning and the pursuit of professional excellence in using their special knowledge and skills in service to society. The curriculum is designed to integrate a rigorous academic, social, cultural, and spiritual life that is central to the Christian academic tradition at Valparaiso University. Students are enriched by participation in the academic, social, cultural, and spiritual life of the college faculty and the Dean.

The Academic Program. Bachelor of Science degrees may be earned in civil, electrical, and mechanical engineering. The curriculum in each degree program consists of a balance of mathematics and physical science, basic engineering sciences, engineering design and practice, and humanities and social sciences. Faculty supervised laboratory experiences provide the opportunity for first-hand observation of physical phenomena, and experience in teamwork, data collection and analysis, and technical communication. All students have the opportunity for significant professional practice experience through either a year-long senior project or an approved Cooperative Education assignment.

History. As early as 1873, civil engineering was taught at Valparaiso University. Sisters Ethel and Merle McCall were the first women engineering graduates each receiving Civil Engineering degrees in 1915. Full four-year programs were established in 1920, with offerings in Civil, Electrical and Mechanical Engineering. During World War II, with the shortage of male students, the program was temporarily reduced to two years at Valparaiso University followed by two years at Purdue University.
After the war, four-year engineering programs were reinstated on campus through the initiative of students who raised funds and then designed and built a new engineering laboratory building. The first post World War II degrees were offered in 1951 in Civil, Electrical and Mechanical Engineering. The Indiana Delta Chapter of Tau Beta Pi, the national engineering honor society, was chartered in 1963.

In 1968 the College of Engineering moved to the newly-constructed Gellersen Engineering and Mathematics Center. This facility was provided through the generosity of the late William A. Gellersen of Oakland, California. The building, located on the eastern edge of the campus, contains faculty offices, classrooms and laboratories of the College of Engineering.

The optional cooperative education program was initiated in 1983 and is the first group of cooperative education students graduated in 1986.

Admission Requirements. The requirements for admission of first year students to the College are listed on pages 198-199 of this catalog. Students who do not meet the mathematics and science course requirements for admission to the College of Engineering may be admitted to the Pre-Engineering program in the College of Arts and Sciences as described on page 47. Upon satisfactory completion of the required mathematics and science courses, they may request admission to the College of Engineering.

Transfer Students. Academic work taken at other institutions is evaluated for advanced standing granted by the Registrar. The appropriate departmental chair then determines which credits apply toward the major and a Statement of Equivalence form is completed. Transfer students are urged to communicate with the chair of the department in which they hope to major prior to formally applying for admission to obtain a preliminary assessment of the duration of their course of study.

Accreditation. Bachelor of Science degree programs in Civil Engineering, Electrical Engineering, and Mechanical Engineering are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). The degree program in Computer Engineering is also accredited but is not offered to students who enrolled after June 1994.

Placement. The Career Center arranges on-campus interviews with a variety of employers who are interested in hiring graduates. Comprehensive services are also available to assist students seeking employment opportunities with organizations which do not interview on campus. Assistance is also available within and outside of the College of Engineering for students wishing to find graduate study opportunities, cooperative education positions, summer employment, or part-time employment during the school year. Resource libraries provide information on employment and graduate school opportunities throughout the United States.

Professional Registration. Registration of those who wish to practice professional engineering is required by law in each of the states and the District of Columbia. The purpose of the law is to assure the general public that those professing to practice engineering have been examined and accepted by a State Board of Examiners. Graduate engineers will be able to more fully practice engineering if they are registered as a Professional Engineer (PE). Registration requires passing the Fundamentals of Engineering Examination typically followed by four years of engineering experience, after which the candidate can sit for the PE Examination. Senior engineering students are provided with information about the licensing process and an invitation, which they are urged to accept, to take the Fundamentals of Engineering Examination at Valparaiso University during the spring semester of their senior year.

Computers. Computers are very important tools for the professional practice of engineering. For engineering students, having their own computer is as important as having their own textbooks and calculator. All engineering students are required to have an approved personal computer available for use in residence. An interest-free loan program is available to aid students who purchase a computer through Valparaiso University at the time that they enroll. Information about this program and the range of approved computers is supplied as part of the admissions process. In addition to their own computer, students have direct access to a wide variety of computing environments, e-mail, and the Internet on the rapidly growing campus computer network. Network connected computers for general student use are located in Gellersen Hall, Schnabel Hall, and most residence halls. In addition, work stations and personal computers with applications software for engineering design, analysis, and simulation are located in the Gellersen Computer Center and various engineering laboratories. Several residence halls have direct LAN access from individual rooms. Modern access is available from any location.

Senior Project. All students, with the exception of some cooperative education students, are required to complete a major project under the supervision of a faculty adviser. This year-long project focuses on the investigation of engineering problems and emphasizes oral and written communication skills. Some of the projects are suggested and sponsored by industrial and consulting firms and government agencies. Special research interests of the faculty and of the students are also sources of project topics.

Student Professional Organizations. To heighten student interest in the profession of engineering and in activities of the student body of the College of Engineering, the College provides general interest programs for all engineering students and sponsors social and recreational activities. Upon selecting a major, students are encouraged to join the student chapter of the related professional society. The American Society of Civil Engineers, the Computer Engineering Society, the Institute of Electrical and Electronic Engineers, the American Society of Mechanical Engineers, and the Society of Women Engineers all have active student chapters on campus. Junior and senior students who have distinguished themselves by high scholarship, exemplary character, unselfish activity, and breadth of interest in their profession may be elected to membership in Tau Beta Pi, the national engineering honor society.

THE FRESHMAN PROGRAM

The College of Engineering has instituted a new, innovative Freshman Program which connects mathematics and physics to real engineering issues and seeks to improve the student's motivation and problem-solving abilities.

The Exploring Engineering course provides the structure for coordination with mathematics and physics. The course has these features: Introduction to powerful, easy-to-use software tools; Solving relevant, design-oriented engineering problems; Careers in civil, electrical, and mechanical engineering; Statistics, Ethics; Study skills; Time Management; Field trips.

The Program includes a guided self-discovery approach for learning course material and for solving engineering problems. Students are often assigned to work on problems in teams to encourage collaborative learning. Mentors chosen from upper-division engineering students offer peer instruction and motivation. Student academic success is encouraged by close cooperation with Student Counseling and Development Center, which presents sessions on study skills and time management.

Student Advisement. Each first-semester engineering student is assigned an academic adviser. This adviser assists the student with program planning through the first two-thirds of the first semester of study. Upon selection of a specific engineering major, a new adviser is provided for that degree area.

College Organization. Administratively, the College is an instructional unit under the direction of the Dean of Engineering. The individual programs in Civil Engineering, Electrical Engineering, and Mechanical Engineering are directed by the faculties of the three engineering departments under the leadership of Department chairs. The Freshman Coordinator and the Coordinator of Cooperative Engineering Education report to the Dean.

SPECIAL PROGRAMS OF THE COLLEGE OF ENGINEERING

Cooperative Education. The ABET accredited cooperative education program provides a special five-year program for personal and career development which integrates classroom theory with career-related work experience. Employment in a salaried position allows students to gain valuable experience, to test career interests and to apply classroom knowledge in an environment related to their professional
degree areas. The cooperative education student acquires engineering experience through a planned and supervised program which provides alternating periods of full-time campus study and full-time off-campus employment with one of over 100 co-op partners throughout the United States. The initial work assignment normally starts during the summer after the sophomore year. Academic credit is awarded for each work period. Students typically complete four or five summer and semester work sessions with the same employer, which results in an annotation on their official transcript “ABET Co-op Ed Criteria Met”.

**Co-op Employers**

The Co-operative Education Program enhances the graduating engineer’s placement status and some employers count the time served as a cooperative education student toward fringe benefits provided to employees.

**Interdisciplinary Studies.** Programs can be arranged to meet special needs or interests of students studying engineering at Valparaiso University. Students interested in career fields such as nuclear, electromechanical, biomedical or chemical engineering or medicine can enrich their engineering programs by careful selection of technical and free electives. These programs involve replacing technical and free electives with courses from other disciplines. Each student plans a program of studies in consultation with a faculty adviser and must secure approval of the Dean of the College. Upon graduation, the student receives a Bachelor of Science degree in Civil, Electrical, or Mechanical Engineering.

Students who have an interest in nuclear engineering may take advanced courses in nuclear science offered by the Department of Physics. The Department of Physics has excellent facilities and maintains a modern subcritical nuclear reactor.

**Manufacturing Management Minor.** A minor in Manufacturing Management is offered jointly by the College of Engineering and the College of Business Administration (see page 192 for requirements).

**Double Degree Program.** Some students wish to obtain a Bachelor of Arts or Bachelor of Science degree in the College of Arts and Sciences or the College of Business Administration in addition to their degree in engineering. In general, this will require an additional year or more of study. To earn two degrees, students must earn 168 credit hours and attain a grade point average of at least 2.00 as well as complete all other graduation requirements for each degree. Students desiring double degrees must have their schedules approved by the Deans of both colleges involved. Further information may be obtained from the Deans.

**Majors and Minors.** A student may earn a major or minor in other colleges of the university by satisfying course and credit requirements specified for a major or minor provided that no more than two courses of three or more hours specifically required for the engineering program are used in fulfilling the requirements of the major or minor. The student will take more courses than are required for an engineering degree. The major or minor will be noted on the student’s official academic record.

**Honors College.** Students invited to participate in the program of Christ College take all required engineering courses as well as courses required in the honors program. Because Christ College courses replace certain non-engineering courses, the College of Engineering-Christ College combination normally requires only four years for completion. The Christ College courses provide an enriched program in the humanities and satisfy General Education Requirements for the engineering program. Academic advisers are assigned for both the College of Engineering and Christ College. Engineering students invited to join Christ College are strongly urged to accept the invitation. Additional information is available from the Dean of Engineering.

**International Experiences.** Various optional programs are available through which engineering students may gain improved understanding of and appreciation for the history, geography, language, culture, and engineering practices of other nations. In addition to the study requirements described on pages 12-13 and 18-23 of this catalog, engineering students are permitted to arrange an international cooperative education assignment.

**ACADEMIC POLICIES**

**Graduation Requirements.** Students must complete one of the prescribed engineering curricula as described in the departmental listings. These prescribed courses satisfy the curriculum requirements of the Accreditation Board for Engineering and Technology. The evaluation of advanced standing of transfer students in the Statement of Equivalence is based on meeting these requirements. Substitutions will be made for Freshman Seminar 100 for students with 24 or more credits of advanced standing and for Theology Level II and Level III courses for students with 69 or more credits of advanced standing.

In addition to other requirements set forth on pages 208-210 of this catalog, the student’s grade point average must meet the following minimums for all work taken at Valparaiso University:

1. A cumulative GPA of 2.00 in all work.
2. A cumulative GPA of 2.00 in the engineering major.
3. A cumulative GPA of 2.00 in General Education courses applicable to the desired degree.
4. A cumulative GPA of 2.00 in mathematics, science, general engineering, and other engineering courses outside the major that are applicable to the desired degree.

**Academic Deficiency.** Students whose cumulative resident Grade Point Average in any of the four categories listed above under Graduation Requirements fall below 2.00 are considered academically deficient. Such students may be denied the privilege of continuing their studies by being suspended from College of Engineering unless they succeed in improving the quality of their work to the satisfaction of the faculty during the following semester. These students are considered to be on probation and may be required by their department to take certain prescribed courses and meet specific standards in order to continue their enrollment in the college. It is the policy of the College of Engineering that suspended students may not request reinstatement for one calendar year.

**Guest Policy.** A student not enrolled in the College of Engineering may take one engineering course per semester or summer session on the written recommendation of the Freshman Coordinator or a department chair and with the approval of the Dean of Engineering. Students who have been suspended from the College of Engineering and are presently enrolled in one of the other colleges may not enroll in an engineering course unless they have completed the course at an earlier date with an unsatisfactory grade (C- or lower). Courses that are cross-listed with departments in the other colleges and taken while on academic suspension may not be used to satisfy College of Engineering degree requirements.

**Other Academic Policies.** University academic policies are described on pages 204-208 of this general catalog. The College of Engineering has established additional academic policies and procedures consistent with University Policies and tailored to the needs of the engineering program. Policy and procedure statements are available in the Dean’s office and are included in the student academic guide.

**GENERAL ENGINEERING**

See page 44 for the number of credit hours that may be applied toward a degree in the College of Arts and Sciences.

**GE 100. Exploring Engineering.**

Cr. 3. An introductory course emphasizing the engineering profession, academic success skills and computer literacy. Topics include productivity tools, an intensive survey of the various engineering professions, and academic survival skills. Applications of physics and calculus to engineering problems. Corequisite: MATH 131. PHYS 141L.

**GE 109. Mechanics-Statics.**

Cr. 3. A course in the resolution and composition of forces applied to the free body diagram. Topics include principles of equilibrium, first and second moments of areas, study of trusses, frames and machines, friction. Prerequisite: MATH 131 and PHYS 141.

**GE 209. Mechanics-Dynamics.**

Cr. 3. A study of the motion of a particle and systems of particles in rectilinear, curvilinear and polar coordinates. The course includes motion of a rigid body in translation, rotation and general plane motion; forces involved in moving systems; use of work and energy relations; impulse and momentum. Prerequisites: MATH 132 and GE 109.

**GE 290. Issues in Technology.**

Cr. 3. Introduction to problem solving, decision-making and risk assessment as they relate to the technical decision-making process. Engineering measurements will be explored in the laboratory using conventional and computer-based data collection systems. Utilizing case studies, the relevant technical and non-technical decisions associated with issues and projects will be explored. Not open to engineering majors.
Cr. 2. The theory of economic decision-making based on comparisons of worth of alternative courses of action with respect to cost. It includes time-value mechanics and depreciation methods. Prerequisite: junior standing in the College.

GE 481. Cooperative Education I.
Cr. 2. The application of theoretical and experimental engineering concepts in business, consulting, industrial or government setting. Emphasis is placed on involvement in real world engineering projects requiring analysis, design and investigative skills. Requires satisfactory work performance at a pre-selected employer and the submission of a final report in approved form. Prerequisites: approval of the Cooperative Engineering Education Coordinator and the Department.

GE 482. Cooperative Education II.
Cr. 2. A continuation of GE 481. This course requires a satisfactory employer evaluation and a final report in approved form. An oral presentation before faculty and peers is required if credit is to be waived for the Independent Study Project.

GE 483. Cooperative Education III.
Cr. 1. Application of the concepts of engineering in a business, consulting, industrial or government environment. It requires a final report in approved form. May be repeated for up to three credit hours. Prerequisites: approval of the Cooperative Engineering Education Coordinator and the Department.

GE 495. Special Problem.
Variable Cr. Selected students are permitted to work out a special problem under the supervision of a member of the faculty. Each student is required to keep a progress notebook and to turn in a final report in approved form. Open only to students with permission of the faculty and approval of the Dean of the College.

Civil Engineering

Professors Schueler, Seeley, Spring (Chair), Wales; Associate Professor Tarhini; Assistant Professor Al-Jobeh.

"Civil engineering is the profession in which a knowledge of the mathematical and physical sciences gained by study, experience and practice is applied with judgment to develop ways and means, economically, the materials and forces of nature for the progressive well-being of mankind in creating, improving and protecting the environment, in providing facilities for community living, industry, transportation, and in providing structures for the use of mankind.”

—American Society of Civil Engineers

Civil engineers plan, design, and supervise the construction and maintenance of facilities that transport people and materials, control floods, provide safe, clean drinking water, and provide for the safe, efficient cleanup of wastewater and hazardous waste. Such facilities include highways, airports, bridges, buildings, flood control structures, dams, and landfill disposal sites. In these projects the civil engineer holds paramount the safety, health and welfare of the public they serve. Civil engineering is truly a people-serving profession.

Civil Engineering Laboratories. The Civil Engineering program at Valparaiso University is arranged to maintain proper balance between laboratory and classroom instruction. Over 5000 square feet of modern, well-equipped laboratory space is available in five laboratories for materials testing, fluid mechanics, concrete and soil mechanics, environmental engineering and experimental stress analysis. In addition, field exercises in surveying are conducted outdoors except in the case of unusually inclement weather. The laboratory experience is vital to the interpretation and application of classroom theory.

Graduation Requirements. The following courses and electives are required to earn the Bachelor of Science in Civil Engineering degree. A typical plan of study for each semester is published in the Student Guide to University Life.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 115 Essentials of Chemistry</td>
<td>4 Cr.</td>
</tr>
<tr>
<td>CHEM 200 Quantitative Analysis</td>
<td>4 Cr.</td>
</tr>
<tr>
<td>COMM 140 Public Speaking</td>
<td>2 Cr.</td>
</tr>
<tr>
<td>ECON 221 or 222</td>
<td>3 Cr.</td>
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<tr>
<td>Principles of Economics</td>
<td></td>
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<tr>
<td>ENGL 100 Exposition and Argument</td>
<td>3 Cr.</td>
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<tr>
<td>ENGL 200 Literary Studies</td>
<td>4 Cr.</td>
</tr>
<tr>
<td>FS 100 Freshman Seminar</td>
<td>3 Cr.</td>
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<tr>
<td>HIST 100 The Western World in Global Perspectiwe</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>MATH 131 Analytic Geometry and Calculus I</td>
<td>5 Cr.</td>
</tr>
<tr>
<td>MATH 132 Analytic Geometry and Calculus II</td>
<td>5 Cr.</td>
</tr>
<tr>
<td>MATH 234 Differential Equations and Linear Algebra</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>PE 101-105 Physical Education</td>
<td>1 Cr.</td>
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<tr>
<td>PHYS 141 Mechanics and Heat</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>PHYS 141L Experimental Physics</td>
<td>1 Cr.</td>
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<tr>
<td>THEO 100 Introduction to Christian Theology</td>
<td>3 Cr.</td>
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<tr>
<td>THEO II Theology Elective</td>
<td>3 Cr.</td>
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<tr>
<td>THEO III Theology Elective</td>
<td>3 Cr.</td>
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<tr>
<td>Career Enhancement Electives</td>
<td>6 Cr.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities/Social Science Elective</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>Mathematics/Science Elective</td>
<td>4 Cr.</td>
</tr>
<tr>
<td>GE 100 Exploring Engineering</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>GE 109 Mechanics-Statistics</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>GE 209 Mechanics-Dynamics</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>CE 151 Construction Surveying</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>CE 202 Statistical Application in Civil Engineering</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>CE 212 Materials of Engineering</td>
<td>3 Cr.</td>
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<tr>
<td>CE 215 Mechanics of Materials</td>
<td>3 Cr.</td>
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<tr>
<td>CE 253 Transportation</td>
<td>3 Cr.</td>
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<tr>
<td>CE 315 Structural Analysis I</td>
<td>4 Cr.</td>
</tr>
<tr>
<td>CE 316 Structural Design I</td>
<td>4 Cr.</td>
</tr>
<tr>
<td>CE 320 Soil Mechanics</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>CE 322 Soil &amp; Foundation Engineering</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>CE 332 Hydrology</td>
<td>3 Cr.</td>
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<tr>
<td>CE 334 Fluid Mechanics</td>
<td>3 Cr.</td>
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<tr>
<td>CE 364 Environmental Engineering I</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>GE 365 Environmental Engineering II</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>CE 417 Structural Design II</td>
<td>4 Cr.</td>
</tr>
<tr>
<td>CE 444 Engineering Management</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>CE 495 Independent Study Project</td>
<td>2 Cr.</td>
</tr>
<tr>
<td>CE 496 Independent Study Project II</td>
<td>2 Cr.</td>
</tr>
<tr>
<td>Civil Engineering Electives</td>
<td>9 Cr.</td>
</tr>
</tbody>
</table>

Total required for graduation . . . . . . 137 Cr.

Cooperative Education. Students may request to substitute up to six credits of GE 481 through GE 483 for the Civil Engineering career enhancement electives.

Career Enhancement Electives.
These six credits must be consistent with the student's written statement of career goals. Approval by the student's advisor is required.

Mathematics/Science Elective.
These four credits will be satisfied by Mathematics 253, Physics 142, Biology 171, Chemistry 221, or other selections approved by the student's advisor.

Civil Engineering Electives.
These four credits are to be selected from the array of Civil Engineering electives provided.

Courses which fulfill civil engineering elective requirements are indicated with a * superscript.

CIVIL ENGINEERING

See page 44 for the number of credit hours that may be applied toward degree requirements in the College of Arts and Sciences. Courses with * have a laboratory or three hour design period.

CE 151. Construction Surveying.
2-3+ Cr. 3. A study of the science and art of relative spatial measurements for engineering purposes. Special emphasis is placed on the theory of errors, use of surveying instruments, and field practice in transit-tape traversing, leveling and route surveying.

CE 202. Statistical Applications in Civil Engineering.
Cr. 3. An introduction to the planned procurement, property description, analysis, and presentation of engineering data. A study of the continuous and discrete distributions most commonly encountered in engineering quality control, experimentation, and design. Emphasis is given to the Central Limit Theorem and its applicability in many areas of Civil Engineering, to the estimation of the sample size required to achieve desired levels of confidence in the conclusions reached by the engineer, to probabilistic methods used in experimental design and quality control, and to a variety of applications of probabilistic theories in engineering practice and research. Prerequisite: MATH 132 or 152.

CE 212. Materials Engineering.
2+3, Cr. 3. (1 cr. Design) Study of the mechanical and physical properties of construction materials: Introduction to concrete mix design and non-destructive testing techniques. Laboratory experiments include the measurement of strains using mechanical gages and electrical resistance strain gages; behavior and failure of ductile and brittle materials subjected to axial, bending, torsional forces; introduction to creep, impact and hardness testing; stability of columns. A design project required, as well as written reports. Prerequisite: CE 215 (may be taken concurrently).

Cr. 3. Concepts of stress and strain, stress-strain relationships, states of plane stress and strain at a point; elementary analysis of stress distributions and deformations for axial loading of prismatic members, torsional loading of circular shafts and bending of beams, combination loading; plastic action, and an introduction to statically indeterminate problems. Prerequisites: GE 109.

CE 283. Transportation.
Cr. 3. (1 cr. Design) Introduction to transportation engineering from a multidimensional perspective. Topics include transportation resources, survey of various transportation modes, and planning and design of highways, railroads, airfields, airports; expansion, and computer methods. Prerequisite: CE 215.

CE 315. Structural Analysis I.
Cr. 4. Analysis of statically determinate and indeterminate structures using classical and computer methods. Prerequisite: CE 215.

CE 316. Structural Design I.
3+3, Cr. 4. (2 cr. Design) Principles of the design of steel structures. Design includes axial tension and compression members, flexural members, beam-columns, connections, and composite design. LRFD methods are used. A comprehensive design project is required. Prerequisite: CE 315.
CE 320. Soil Mechanics. 2+3, Cr. 3. (1 cr. Design) The study of index, structural, mechanical and hydraulic properties of soils. Compaction and stabilization. Theoretical soil mechanics, including shear strength, pressure distribution, consolidation, active and passive states of plastic equilibrium and flow-through permeability. Elementary principles of laboratory identification and testing of soils. Prerequisites: CE 212, 215 and 332 (may be taken concurrently).


CE 417. Structural Design II. 3+4, Cr. 4. (4 cr. Design) Principles of the design of reinforced concrete structures. Design includes flexural members, compression members, one-way slabs and floors. ACI Strength Design Method. Continuation of the comprehensive design project from CE 316. Prerequisites: CE 315 and CE 316.

CE 418. Structural Design III. 3+4, Cr. 3. (Design) Analysis and design of masonry structural system components. The use of appropriate specifications in design. Design projects may be required. Taught in alternate years. Prerequisite: CE 315.

CE 420. Geotechnical Practice. 3+4, Cr. 3. (2 cr. Design) Presentation and discussion of principal components of the art of geotechnical engineering practice. Includes planning subsurface investigations, performance predictions, probabilistic applications, presenting results and conclusions to clients, forensic practice, ethical considerations, and case studies. Prerequisite: CE 322.

CE 436. Water Resources Engineering. 3+4, Cr. 3. (1 cr. design) Application of the principles of fluid mechanics to analysis and design of water resources projects. Topics include open channel hydraulics, water conveyance, water quality analysis, pipe networks, fluid mechanics and hydraulic transition. Prerequisite: CE 334 or ME 373.

CE 444. Engineering Management. 3+3, Cr. 3. Presentation of management concepts, knowledge, and skills to help the technically prepared engineer to be immediately productive as a practitioner. Systems analysis, process control, economics, maintenance, environment, quality assurance, risk analysis, computer applications. Prerequisite: senior standing in College of Engineering.

CE 457. Traffic Engineering. 3+4, Cr. 3. (1 cr. Design) Fundamental traffic analysis. Behavior of pedestrians and vehicles. Analysis of traffic flows and traffic control. Prerequisite: senior standing in College of Engineering.

Electrical and Computer Engineering

Professors Gelopolus (Chair), Kraft, Luecke; Associate Professors Goodman, Hart; Assistant Professors E. Johnson, Tougaw.

The Electrical Engineering program is designed to provide a variety of career opportunities in industries as diverse as aerospace, computers, manufacturing, communications, and electric power. It is based on required work in circuit theory, analysis and digital electronics and the structure of computers and computer languages. Students may select either a computer emphasis track or an electrical emphasis track. The computer emphasis track allows the student to pursue studies in both computer software and hardware and their relationship in engineering computer systems. The electrical emphasis track provides additional work in control and communication system theory, power applications, and electromagnetic theory and applications.

The program contains a significant laboratory component. Emphasis is placed on developing skills in the design, construction and testing of circuits and systems. The laboratory course sequence is correlated with lecture courses which are normally taken concurrently. The following laboratory facilities are supported in the department. The electric circuits laboratory serves for basic instruction in electrical circuit concepts and use of instruments. The electronic systems laboratory supports intermediate level work in digital and analog systems. Rotating machines, power electronics, power systems, and controls are studied in the power systems laboratory. The communication laboratory is used for studies in communication electronics and microwave communication systems. The computer laboratories contain a network of workstations, PCs, peripherals, and software and hardware development systems. Senior design projects use the facilities of the Department as required.

ELECTRICAL ENGINEERING
**College of Engineering**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE 100</td>
<td>Exploring Engineering</td>
<td>3</td>
</tr>
<tr>
<td>GE 407</td>
<td>Engineering Economics</td>
<td>2</td>
</tr>
<tr>
<td>ECE 110</td>
<td>Exploring Electrical Engineering</td>
<td>2</td>
</tr>
<tr>
<td>ECE 111</td>
<td>Exploring Electrical Engineering Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ECE 155</td>
<td>Algorithms and Programming I</td>
<td>3</td>
</tr>
<tr>
<td>ECE 202</td>
<td>Computer Techniques for Electrical Engineers</td>
<td>3</td>
</tr>
<tr>
<td>ECE 212</td>
<td>Electrical and Computer Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>ECE 213</td>
<td>Electrical and Computer Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>ECE 220</td>
<td>Digital System Design</td>
<td>3</td>
</tr>
<tr>
<td>ECE 233</td>
<td>Advanced Logic Design</td>
<td>3</td>
</tr>
<tr>
<td>ECE 246</td>
<td>Computer Architecture and Programming</td>
<td>3</td>
</tr>
<tr>
<td>ECE 250</td>
<td>Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>ECE 261</td>
<td>Linear Circuit Theory I</td>
<td>3</td>
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<tr>
<td>ECE 262</td>
<td>Linear Circuit Theory II</td>
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<tr>
<td>ECE 310</td>
<td>Electrical and Computer Laboratory III</td>
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<td>ECE 340</td>
<td>Electronics</td>
<td>3</td>
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<tr>
<td>ECE 341</td>
<td>Analog System Design</td>
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<tr>
<td>ECE 495</td>
<td>Senior Design Project I</td>
<td>2</td>
</tr>
<tr>
<td>ECE 496</td>
<td>Senior Design Project II</td>
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<tr>
<td>ECE 498</td>
<td>Design Electives</td>
<td>6</td>
</tr>
<tr>
<td>ECE 267</td>
<td>Elective Requirement</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives.** Specific recommendations regarding the selection of electives are available from the Department and should be made in consultation with a departmental academic adviser.

**Technical Electives.** The technical elective requirement may be met with additional Electrical and Computer Engineering electives or with courses from the following departments: Civil Engineering, Mechanical Engineering, Biology, Chemistry, Mathematics and Computer Science or Physics. Courses used to fulfill this requirement must be approved by the academic adviser.

**Engineering Science Electives.** The engineering science elective requirement may be met by taking one of the following courses: GE 109, GE 209, ME 252, ME 253, CE 332, CE 364, or ME 370.

**ECE Design Electives.** Courses of three credits each from the 400 level elective courses, which are identified as design courses by the superscript *, satisfy this requirement.

**Cooperative Education.** Students may request that up to three credits of GE 481 through GE 484 be used to satisfy the "Technical Elective." Other cooperative education credits may be used as free electives.

**ELECTRICAL AND COMPUTER ENGINEERING**

See page 44 for the number of credit hours that may be applied toward a degree in the College of Arts and Sciences.

**ECE 110. Exploring Electrical Engineering.**
Cr. 2. An introductory course emphasizing basic circuit analysis, characteristics of common electrical devices, computer tools including simulations, and problem-solving techniques. Prerequisite: MATH 122 or 152 and PHYS 142.

**ECE 111. Exploring Electrical Engineering Laboratory.**
0+3, Cr. 1. A complement to ECE 110 with emphasis on laboratory technique and the characteristics of electrical devices. Corequisite: ECE 110.

**ECE 155. Algorithms and Programming I.**
Cr. 3. (1 cr. Design) Introduction to the design of sequential and concurrent algorithms. Software engineering principles and practices relating to program design and implementation. Corequisite: ECE 156.

**ECE 158. Algorithms and Programming II.**
Cr. 3. (Also offered as Computer Science 158.) (1 cr. Design) Emphasis on the development of structure and discipline in program design and style, especially for intermediate size programs. Prerequisite: ECE 155 or ECE 202 or CS 157.

**ECE 202. Computational Techniques for Electrical Engineers.**
Cr. 3. Introduction to the solution of electrical and computer engineering problems using computers. In addition to structured languages, important software packages such as PC Solve, Matlab, and Pspice are used. The course is designed to complement ECE 261 and MATH 234.

**ECE 212. Electrical and Computer Laboratory I.**
0+3, Cr. 1. An introduction to basic instrumentation and measurement in the investigation of electrical circuits. Technical writing and presentations are required. Corequisite: ECE 261.

**ECE 213. Electrical and Computer Laboratory II.**
0+3, Cr. 1. A continuation of ECE 210, with more advanced measurement techniques. Technical writing and presentations are required. Corequisite: ECE 262.

**ECE 220. Digital System Design.**
Cr. 3. (Also offered as Computer Science 220.) (1 cr. Design) A logic design course covering combinational and sequential logic, controller specification and design using MSI and LSI devices.

**ECE 223. Advanced Logic Design.**
Cr. 3. (2 cr. Design) A course in register transfer system integration logic design. Logic family characteristics and application. PLA and PLD design practice to meet logic requirements. Micro-controllers and MSI structures. Prerequisite: ECE 220.

**ECE 235. Data Structures.**
Cr. 3. (Also offered as CS 235.) (1 cr. Design) A detailed study of various data structures, including stacks, queues, linked lists and trees. The emphasis is on algorithms to build and manipulate the data structures, various implementations, time analysis of the algorithms and applications. Prerequisites: ECE 158 and MATH 122 or 132 or 152.

**ECE 246. Computer Architecture and Programming.**
2+3, Cr. 3. (Also offered as Computer Science 246.) (2 cr. Design) Fundamentals of the structure of digital computers and an introduction to assembly language programming. Topics include machine instructions, data representation, addressing techniques and program segmentation and linkage. Prerequisite: ECE 155.

**ECE 250. Probability for Electrical and Computer Engineering.**
Cr. 3. Basic probability theory (discrete and continuous) with applications, sampling correlation and regression, multiple random variables, introduction to stochastic processes. Prerequisite: MATH 131.

**ECE 261. Linear Circuit Theory I.**
Cr. 3. A study of the fundamental methods and theorems of electric circuit analysis with emphasis on analytical and computer-aided methods. AC and DC analysis, transient and complete response. Prerequisite: MATH 131.

**ECE 262. Linear Circuit Theory II.**
Cr. 3. A continuation of ECE 261. The complex frequency plane; resonance, coupled circuits, two-port parameters. A study of polyphase analysis; Fourier series; Laplace transform. Prerequisite: ECE 261 with a minimum grade of C.

**ECE 281. Fundamentals of Electrical Engineering.**
2.5+1.5, Cr. 3. A study of the fundamental methods of electrical circuit analysis with emphasis on computer-aided analysis. AC and DC circuits, operational amplifiers. Laboratory exercises emphasize measurement techniques and reinforce lecture material. Not applicable to a degree in electrical or computer engineering. Prerequisite: PHYS 142.

**ECE 310. Electrical and Computer Laboratory III.**
0+3, Cr. 1. The study of analog and digital signal processing circuits emphasizing measurement techniques. Prerequisite: ECE 219; corequisite: ECE 340.

**ECE 311. Electrical Laboratory IV.**
0+3, Cr. 1. An introduction to the construction and laboratory evaluation of analog and digital electronic systems and rotating machines. Prerequisite: ECE 310; corequisites: ECE 341 and 370.

**ECE 317. Computer Laboratory IV.**
0+3, Cr. 1. Measurements in computer systems. Study of computer subsystems, buses, input/output interfaces, and memory organization. Prerequisite: ECE 213 and junior standing in the Computer Engineering program.

**ECE 324. Architecture of Computer Systems.**
Cr. 3. (1 cr. Design) The description, organization and design of computer elements to perform specific tasks effectively. Arithmetic and string processing machines and the influence of software on their structure. Prerequisite: ECE 223.

**ECE 340. Electronics.**
Cr. 3. (1 cr. Design) An introduction to semiconductor theory and the application of diodes, transistors and integrated circuits in the design of amplifiers and multiple transistor circuits. Prerequisite: ECE 261.

**ECE 341. Analog System Design.**
Cr. 3. (2 cr. Design) The design of analog electronic systems using discrete and integrated devices. Topics include discrete and integrated amplifier circuits, active filters, waveform generators, power amplifiers, power supplies and regulators. Prerequisite: ECE 340.
ECE 355. Organization of Programming Languages. Cr. 3. (Also offered as Computer Science 355.) (1 cr. Design) Formal language constructs as exhibited in a variety of programming languages. Topics include syntax and basic characteristics of grammars, parsing, data types and structure run-time consideration. Corequisite: ECE 235.

ECE 360. Linear System Theory I. Cr. 3. (1 cr. Design) An introduction to design and analysis of linear time invariant systems using state difference equations and linear transform techniques. Prerequisite: ECE 262.

ECE 361. Linear System Theory II. Cr. 3. (1 cr. Design) A continuation of ECE 360 with emphasis on continuous systems and the digital representation of continuous systems. Topics include state space representation of continuous systems, Fourier series, and Laplace and Fourier transforms. Prerequisite: ECE 360.

ECE 370. Energy Conversion. Cr. 3. (1 cr. Design) A study of electromagnetic devices with emphasis on the principles and operating characteristics of transformers and rotating electrical machines. Prerequisite: ECE 260.

ECE 418. Computer Laboratory V. 3.0+1 Cr. 1. Network administration and maintenance, software and hardware development for computer, microcontroller, and microprocessor systems. Prerequisite: ECE 317 or permission of the instructor.

ECE 420. Microprocessor Applications. Cr. 2.7+1 Cr. 3. (2 cr. Design) The application of microprocessors and microcontrollers in embedded system design, emphasizing the interconnection of available components into systems and case studies of existing applications. Prerequisite: ECE 248 or ECE 223.

ECE 429. VLSI Design Principles and Tools. Cr. 2.7+1 Cr. 3. (2 cr. Design) A course in VLSI design tools with emphasis on the device, layout, and circuit design required to develop integrated circuits. Specific courses cover CAD tools and layout techniques, synthesizable VHDL, and interface design. Prerequisite: ECE 248 or ECE 223.

ECE 430. Electromagnetic Field Theory. Cr. 3. The study of fundamental laws of static and dynamic electric and magnetic fields using vector methods. Topics include boundary value problems, Maxwell’s equations and electromagnetic radiation. Prerequisite: MATH 233.

ECE 431. Microwaves. Cr. 2.7+1 Cr. 3. (2 cr. Design) An introduction to the principles and applications of microwave devices and circuits. Topics include microwave circuit theory, wave-guiding techniques, components and solid state devices. Prerequisite: ECE 430.

ECE 440. Communication Electronics. Cr. 2.7+1 Cr. 3. (2 cr. Design) A course in the analysis and design of electronic circuits used in the transmission of information by electric signals. Topics include RF amplifiers, oscillators, mixers, modulators, demodulators and coupling circuits. Prerequisite: ECE 430 and 453.

ECE 450. Digital Communication Systems. Cr. 2.7+1 Cr. 3. (2 cr. Design) Theory of interconnected digital systems including information flow control by packet and circuit-switching techniques and standards for communication between network nodes. Prerequisite: ECE 248 or 324.

ECE 482. Digital Signal Processing. Cr. 2.7+1 Cr. 3. (2 cr. Design) Overview of the theory and techniques of digital signal processing. Prerequisite: ECE 360.

ECE 483. Communication Theory. Cr. 3. Methods of transmission of information by electrical signals through channels limited by bandwidth and additive noise. The characteristics of standard analog and digital modulation schemes such as AM, FM, PAM, PCM are investigated and related to their channel requirements. Prerequisites: ECE 250 and ECE 360.

ECE 460. Control System Design. Cr. 2.7+1 Cr. 3. (2 cr. Design) Classical design of feedback control systems using root-locus and frequency response methods. Introduction to modern control theory and state space representation, Luenberger observers and pole-placement solutions. Prerequisite: ECE 361.

ECE 470. Power System Engineering. Cr. 2.7+1 Cr. 3. (2 cr. Design) Power system components, system modeling and computer methods for power system analysis are studied. Design topics include transmission lines, protection systems and voltage control. Prerequisite: ECE 262.

ECE 471. Power Electronics. Cr. 2.7+1 Cr. 3. (2 cr. Design) A course in the application and design of power semiconductor circuits. Topics include rectifiers, AC controllers, inverters and switched-mode power supplies. Prerequisites: ECE 262 and ECE 340.

ECE 490. Topics in Electrical and Computer Engineering. Cr. 1-3. The investigation of electrical engineering or computer engineering topics of special interest. Depending on the syllabus, this course may qualify as a Design Elective. Prerequisite: consent of the Chair of the Department.

ECE 495. Senior Design Project I. 1-3 Cr. 2. (1 cr. Design) A course in the application and design of engineering systems. Topics may include research in a specialized area of engineering or a design activity which will introduce the student to the design and development of new products or systems. Prerequisite: ECE 430.

ECE 496. Senior Design Project II. 1-3 Cr. 2. (1 cr. Design) An introduction to the design and development of new products or systems. Prerequisite: senior standing in Electrical Engineering or Computer Engineering.

Mechanical Engineering

Professors Schoech, Steffen; Associate Professors Doria, Palumbo (Chair); Assistant Professors Jensen, Yap.

The practice of mechanical engineering includes a wide range of technical activities in the areas of energy conversion, automatic control of engineering processes, and the design, development and manufacture of mechanical components or systems. These broad categories can be divided into many sub-specialties. For example, mechanical engineers play an important role in the development of environmentally sound energy resources and energy efficient devices, or in improving the design and manufacturing techniques for products ranging from delicate medical instruments to reliable, safe automobiles. Mechanical engineering contributes to almost every aspect of our society.

The Mechanical Engineering graduate is able to apply scientific and engineering knowledge in either graduate school or industry. Industrial careers are as varied as sales and product applications, planning and supervision of manufacturing, designing new products or systems, improving existing products or systems and general company management. Employment opportunities are available in all areas of the economy, including private industry, government service and consulting firms.
Cooperative Education. Students who successfully complete the co-op program may petition the Department to substitute GE 481 and GE 482 co-op credit hours for GE 495 and ME 496 course credit hours. Additional co-op credits for GE 483 may be substituted for free elective credit. Students placed after their junior year may petition to substitute GE 482 and two GE 483 credits for GE 495 and ME 496 course credit hours. A faculty advisor will monitor the academic progress of each student's co-op experience to meet departmental requirements.

Manufacturing Management Minor. This interdisciplinary minor is described on page 192.

Mechanical Engineering Electives. Twelve credits are to be selected from the range of mechanical engineering courses to provide areas of individual study emphasis. Up to three credits may be substituted for students taking an approved technical concentration outside the College of Engineering. Courses which fulfill mechanical engineering elective requirements are indicated with a superscript *.

MECHANICAL ENGINEERING

See page 44 for the number of credit hours that may be applied toward a degree in the College of Arts and Sciences.

ME 104. Computer-Aided Design. 3+3, Cr. 4. A course in the theory and technique of engineering graphics related to the design process. Emphasis is placed on theoretical geometric projections, lines and planes in space, orthographic projections, intersections, oblique and sectional views, and dimensioning. Students use both computer-aided and manual drawing procedures. Laboratory projects will emphasize the mechanical design process.

ME 225. Computer Languages and Applications. Cr. 3. This course encompasses the use of computers and software to solve problems in mechanical engineering. The fundamentals of structured programming in Pascal are covered. Selected methods of numerical analysis include root finding, curve fitting, interpolations and solution of ordinary differential equations. Prerequisite: Mathematics 132; corequisite: MATH 234.

ME 223. Mechatronics. 3+3, Cr. 4. (1 cr. Design) A study of digital logic design, actuators, sensors and controllers applied to the design of mechanical systems. Emphasis is placed on digital logic design, pneumatic components and circuits, programmable logic controllers, and characteristics and applications of motors. Prerequisite: ECE 261.

ME 252. Materials Science. 2+3, Cr. 3. (0.5 cr. Design) A study of structure-property-processing relationships of engineering materials related to their selection in design and manufacturing processes. Based on an understanding of elastic and crystal structure, the methods of controlling structure and mechanical properties of materials are studied with an emphasis on the strengthening mechanisms. Processes studied include solidification, phase transformation, and mechanical working of metals. A field trip to an industrial facility is arranged. Prerequisite: MATH 132 or 152; corequisite: CHEM 115.

ME 253. Manufacturing Processes. 3+3, Cr. 4. (2 cr. Design) Also offered as ME 354. A study of manufacturing emphasizing metal cutting, operation planning, fabrication techniques, and a field trip to an industrial facility. A study of the design process. Emphasis is placed on the selection of a metal for a given application. A field trip to an industrial facility is arranged. Prerequisite: MATH 132 or 152; corequisite: CHEM 115.

ME 333. Mechanical Measurements Laboratory. 3+3, Cr. 4. (0.5 cr. Design) A study of the fundamentals and principles of measurement in the sciences of technology. Emphasis is placed on the selection of a metal for a given application. A field trip to an industrial facility is arranged. Prerequisite: MATH 132 or 152; corequisite: CHEM 115.

ME 354. Manufacturing Processes. 3+3, Cr. 4. (Also offered as Mechanical Engineering 252) A study of the manufacturing processes in manufacturing techniques, and inspection. Machinability of materials, application of machine tool, and Computer Numerical Control (CNC) are introduced through lecture and laboratory work. Field trips to industrial facilities are arranged. Open only to business majors in the Manufacturing Management Minor program. Prerequisite: MATH 124 and official advancement to upper division in the College of Business Administration.

ME 362. Mechanisms. Cr. 3. (1 cr. Design) Graphical and analytical approaches to kinematic analysis and synthesis of linkages, gears and cams. Linkage topics include displacement, velocity and acceleration analysis along with type, number and dimensional synthesis. Fundamentals of gears and gear trains are investigated. Cam design and application of motion programs to cam design are considered. Prerequisites: ME 225, GE 209, and concurrent registration in MATH 232 or 233.

ME 370. Thermodynamics I. Cr. 3. (0.5 cr. Design) A study of the first and second law of thermodynamics. Extensive use of these laws is made in analyzing process and cycles. Work is done with vapor power and refrigeration cycles. Additional topics covered are ideal gases, non-reactive gas and gas vapor mixtures as well as other simple compressible substances. Prerequisites: MATH 132 and PHYS 141.

ME 373. Fluid Mechanics. Cr. 3. (0.5 cr. Design) The basic conservation equations in control volume form are developed and used in engineering applications of fluid motion. Topics include fluid statics and the dynamics of both compressible and incompressible flows. Prerequisite: GE 209.

ME 374. Heat Power Laboratory. 0+3, Cr. 1. Experimental studies designed to reinforce theory presented in the areas of heat transfer, thermodynamics and fluid mechanics. Experiments deal with topics such as flow and heat transfer mechanisms, refrigeration and internal combustion engines. Prerequisite: ME 370; corequisite: ME 376.

ME 376. Heat Transfer. Cr. 3. (1 cr. Design) The fundamentals of heat transfer by conduction, radiation and forced and free convection are developed and applied to engineering problems. Analytical and graphical solutions for heat exchangers are studied. Corequisite: ME 370.

ME 444. Automatic Control. 2+1.5, Cr. 3. (1.5 cr. Design) Fundamentals of instrumentation and control with particular application to the process industries. System dynamics are analyzed using step, ramp and frequency response techniques. Laboratory experiments involve system identification, controller selection and adjustment, numerical analysis techniques and system sequencing to achieve specific control objectives. Prerequisites: ME 333 and MATH 234.

ME 456. Robotics/Automation System Design. 2+1.5, Cr. 3. (2 cr. Design) A study of the application of Computer-Aided Design/Computer-Aided Manufacturing (CAD/CAM), robots, computer-numerically-controlled (CNC) machine tools, and computers to the design of hard and soft automation systems. These systems are applied to automation, manufacturing, and assembly for economic production of mechanical components and systems. Prerequisites: ME 252, and MATH 333.
ME 458. Production Operations and Systems. 2.5+1.5, Cr. 3, (2 cr. Design) Also offered as Mechanical Engineering 457. The design of production systems which produce goods and services, computerized systems which integrate information, and the management systems which provide decisions, information and control data. Emphasis is placed on management strategies for analysis, synthesis and optimization of the production system through a laboratory experience in which students design the production system for a product. Open only to business majors in the Manufacturing Management Minor program. Prerequisite: ME 354.

ME 462. Vibrations. 2.5+1.5, Cr. 3, (1 cr. Design) Single and multiple degree of freedom systems and continuous media are analyzed with regard to natural frequencies, free, forced and damped vibrations. Practical aspects of vibration isolation, absorption, damping and noise measurement and reduction are considered. Frequency analysis and modal analysis techniques are presented. Prerequisites: Mathematics 234, ME 225, and GE 209.

ME 463. Machine Design I. 2.5+1.5, Cr. 3, (2 cr. Design) The application of specialized topics in mechanics of materials to the design and analysis of machine elements. Topics considered include combined stress, contact stress, stress concentration, fatigue, deflection and theories of failure. Stress principles are applied to springs, bolts, welded joints and general mechanical elements. Prerequisite: CE 215.

ME 464. Machine Design II. 2.5+1.5, Cr. 3, (2 cr. Design) A comprehensive study in the design and analysis of belt and chain drives, gearing, gear trains, antifriction and journal bearings. Shaft critical speeds, dynamic balancing and rolls are considered. Prerequisite: senior standing in Mechanical Engineering.

ME 468. Experimental Stress Analysis. 2.5+1.5, Cr. 3, (1 cr. Design) An introduction to experimental, theoretical, and computational methods for determining stress distributions in structures and machine components. Topics include photomechanics techniques, electrical resistance strain gages, finite element analysis with a review of stress and strain at a point, and biaxial stress-strain relations. Prerequisite: CE 215.

ME 470. Thermodynamics II. Cr. 3, (2 cr. Design) Continuation of ME 370. Topics include combustion principles and cycle optimization using the second law of thermodynamics. Prerequisites: ME 370 and CHEM 115.

ME 475. Advanced Thermodynamics. Cr. 3, (1-2 cr. Design) The study of advanced topical matter in thermal sciences. Topics to be determined by instructor prior to course offering. Topics may include compressible fluid flow, computational fluid dynamics, or the design of heating, ventilating, and air conditioning systems. Prerequisites: ME 370, ME 373, and ME 376.

ME 478. Heat Power Design. 2+2, Cr. 3, (2 cr. Design) A design-oriented course using a team approach. Open-ended problems are assigned which involve the synthesis of heat transfer, flow, and energy conversion components. Presentation of oral and written reports is an important part of the course. Prerequisites: ME 370, 373, and 376.

ME 490. Topics in Mechanical Engineering. Cr. 2-3, Seven weeks or semester. The investigation of mechanical engineering topics of special interest. Prerequisite: consent of the Chair of the Department. Offered upon sufficient demand.

ME 498. Senior Design Project I. 1-3, Cr. 2, (2 cr. Design) The application of theoretical and experimental engineering concepts and mathematical principles in the analysis, design or investigation of engineering systems. Design problems for the field of mechanical engineering to be selected by students with the approval of the Mechanical Engineering faculty. Prerequisite: senior classification in Mechanical Engineering, corequisite: ME 253.

ME 499. Senior Design Project II. 1-3, Cr. 2, (2 cr. Design) A continuation of ME 498.
College of Nursing

Permeating the curriculum is cultivation of the spirit of the University's Christian tradition in the student's quest for excellence in all areas of personal and professional life. Graduation Requirements. In order to realize its objectives, the College holds the student to the following requirements:

A. Nursing. A minimum of 57 credit hours in nursing. Courses in which the student is required to earn a grade of C or better are:

- **NUR 205** Professional Role in Nursing .................... 3 Cr.
- **NUR 206** Health Assessment .................................. 2 Cr.
- **NUR 219** Clinical Application of the Professional Role ....... 4 Cr.
- **NUR 220** Primary Care of the Family .......................... 3 Cr.
- **NUR 310** U.S. Health Care Systems (Social Analysis) ...... 3 Cr.
- **NUR 319** Introduction to Nursing Research .................... 3 Cr.
- **NUR 320** Secondary Care of the Parent, Child and Adolescent 5 Cr.
- **NUR 330** Secondary Care of the Adult/Long-Lived Adult ... 4 Cr.
- **NUR 340** Secondary Care in Psychiatric Nursing ............. 4 Cr.
- **NUR 410** Tertiary Care in the Community ...................... 5 Cr.
- **NUR 420** Tertiary Care Issues Related to the Family ......... 3 Cr.
- **NUR 430** Secondary Care of the Adult/Long-Lived Adult ...... 4 Cr.
- **NUR 435** Tertiary Care of the Adult/Long-Lived Adult .......... 4 Cr.
- **NUR 440** Tertiary Care in Psychiatric Nursing ................. 2 Cr.
- **NUR 450** Nursing Management in Health Care System ....... 4 Cr.
- **NUR 480** Professional Role Practicum .......................... 4 Cr.

Total: 57 Cr.

B. Arts and Sciences. A minimum of 57 credit hours from the College of Arts and Sciences. Courses in which the student is required to earn a grade of C or better are marked with an asterisk *. The specific requirements are:

- **FS 100** Freshman Seminar ...................................... 3 Cr.
- **ENGL 100** Exposition and Argument .......................... 3 Cr.
- **HIST 100** The Western World in Global Perspectives .......... 3 Cr.
- **THEO 100** Introduction to Christian Theology ............... 3 Cr.
- **ENGL 200** Literary Studies ..................................... 4 Cr.
- **THEO Level II and III** ......................................... 6 Cr.

Academic Area Studies Option (defined on pages 39-40) ........ 3 Cr.

PE 101-108 ................................................................. 1 Cr.

Global Cultures and Perspectives ..................................... 3 Cr.

**CHEM 111, 121, or 131** General Chemistry* .................. 4 Cr.

**BIO 151 and 152** Human Biology* ............................... 8 Cr.

**BIO 210** Microbiology* ........................................... 4 Cr.

**BIO 260** Human Nutrition* ....................................... 3 Cr.

**PSY 110** General Psychology* ................................... 3 Cr.

**PSY 201** Statistical Methods* .................................... 3 Cr.

**PSY 330** Child and Adolescent Development* .................... 3 Cr.

Total: 57 Cr.

C. Electives. In addition to meeting the requirements in Nursing and Arts and Sciences listed above, the student must present for graduation a sufficient number of electives to bring the total number of credit hours to 126. No more than 6 credits may be baccalaureate nursing credits.

One elective must meet the Academic Area Studies requirement of a three credit hour course in one of the areas listed below: Fine Arts or Fine Arts-Literature Foreign Language 102 or 103 Global Cultures and Perspectives Philosophical and Historical Studies Social Analysis

*Note: No more than four credit hours in applied music, including ensemble, and no more than four credit hours of PE 101-149 may be applied toward a Bachelor of Science in Nursing degree.

D. Requirements for Admission to Nursing Courses. For admission to the first clinical nursing course, students must attain a minimum cumulative grade point average of 2.00 and no grade lower than C in the courses designated in sections A and B of graduation requirements.

Students are required to present annually evidence of a recent (within the year) physical examination, current immunization (rubella and HBV included), current communicable disease screening (rubella titer, Mantoux test) and current CPR certification or recertification. The College of Nursing does not make arrangements for meeting these requirements.

E. Progression. Students must maintain a minimum cumulative grade point average of 2.00 in all coursework and in the nursing major to remain in the College of Nursing. Students must earn a grade of C or better in courses designated in sections A and B of Graduation Requirements.

A grade of less than 2.00 in any two required courses with a nursing number will result in dismissal from the nursing program. The College of Nursing's Academic Standards Committee reviews petitions of students who are eligible and request a hearing for appeal of the committee's decision.

Students may enroll in no more than two clinical courses during each semester, or one clinical course per each seven week rotation.

Senior students take a required NCLEX Review Course at the College of Nursing before graduation. Fee: $250-$350.

Minor. A Nursing student may declare a minor provided that no more than six credit hours of courses required for the Nursing major are used in fulfilling requirements of the minor. The minor is noted on the student's academic record.

Student Nurses Association. All student nurses are invited to membership in the Student Nurses Association.

Sigma Theta Tau International. Students who have completed at least one-half of the required Nursing courses and who have demonstrated superior scholastic achievement and evidence of professional leadership potential may be elected to membership in this international honor society of nursing. The Zeta Epsilon Chapter was installed at Valparaiso University in 1982.

*Note: Students are responsible for transportation to and from all clinical agencies and for transportation associated with home visits. The College of Nursing uses a variety of accredited health facilities to provide broad clinical experience for students; consequently, access to a car is necessary in most clinical courses.

*Note: Prerequisites for the following courses listed under Requirements for Admission to Nursing Courses and at least sophomore standing, which includes completion of BIO 151, BIO 152, and CHEM 111.

**NUR 205. Professional Role in Nursing.**

Cr. 3. Introduction of person, health, nursing and environment and their interrelationship as the basis for nursing practice. Examines the expanding role of the nurse including caregiver, teacher, researcher, manager, and lifelong learner. Explores the interpersonal skills used in the provision of health care.

**NUR 206. Health Assessment.**

1-3 Cr. 2. Clinical practice in assessment skills of interview, inspection, palpation, percussion and auscultation of the healthy adult. Emphasis is placed on utilizing techniques that assist in an organized and comprehensive health assessment and relating it to the nursing process.

**NUR 215. Clinical Application of the Professional Role.**

2+Cr. 4. Clinical application of concepts relevant to professional nursing. Focus is on the use of the nursing process and its framework for assessment, planning, implementing, and evaluating clinical phenomena and the nurse's role as caregiver, manager, teacher, researcher, and lifelong learner. Prerequisite: MATH 110 or placement higher than MATH 110.

**NUR 220. Primary Care of the Family.**

2.5+1.5 Cr. 3. Focuses on promotion and maintenance of health care for the family.

**NUR 260. Transition to Professional Nursing I.**

Cr. 4. Concepts relevant to professional nursing are discussed. Nursing process, interpersonal communication skills, research process, teaching-learning theory, and leadership theories are included. Prerequisite: Registered Nurse Status.

**NUR 261. Transition to Professional Nursing II.**

Cr. 4. Clinical application of concepts relevant to professional nursing. Prerequisite: concurrent enrollment in NUR 260.

*Note: Prerequisites for the following courses are NUR 205, 206, 215, and 220 (or 260 and 261), and at least junior standing, which includes completion of BIO 210.

**NUR 310. U.S. Health Care Systems.**

Cr. 3. Presents an overview of the health care delivery system in the United States and the professional role within that system. The impact of social and political events on the health care system is examined including health policy, personnel, financing, federal and state legislation, the political process, and racial and cultural diversity. Fulfills social analysis requirement for nursing majors.

**NUR 315. Introduction to Nursing Research.**

Cr. 3. A study of scientific research as applied to nursing. An overview of the scientific method, the purposes of research, research problems, and approaches to solving research problems are examined.

**NUR 318. Global Health Issues.**

Cr. 3. Provides the student with an opportunity to explore health issues in a global perspective. Health issues that may be discussed are basic needs for health, nutrition, preventing diseases, health care delivery, and preparation of health care workers. No prerequisite. May be used to fulfill the Global Cultures and Perspectives component of the General Education Requirements.

**NUR 320. Secondary Care of the Parent, Child, and Adolescent.**

3+6 Cr. 5. Focuses on the nursing care of families in a secondary care setting. The course examines responses of the family to childbirth, illness, and hospitalization during childbearing and childrearing.

**NUR 322. Women and Their Health.**

Cr. 3. A study of women's health with a scope beyond childbearing and childrearing that promotes a comprehensive view of the health care needs of women. Health concerns of women are examined both within the medical model and self-help framework. Emphasis is placed on the promotion and support of women's involvement in decision making and responsibilities for their health. No prerequisite. May be used for the Gender Studies Minor.
College of Nursing

NUR 330. Secondary Care of the Adult/Long-lived Adult I.
3+3, Cr. 4. Study and practice of the nursing care of young, middle and long-lived adults. The course examines the responses of adults of all ages and their families to health problems and hospitalization.

NUR 340. Secondary Care in Psychiatric Nursing.
3+3, Cr. 4. Study and practice in the nursing care of clients experiencing psychiatric disturbances with an emphasis on secondary care.

Cr. 3. An introduction to dimensions of aging with special emphasis on biologic aging and the developmental, functional, and environmental factors that influence adaptability to age-related changes. Open to all students with advanced standing. May be used for the Human Aging Minor.

NUR 381. Cooperative Education in Nursing.
Cr. 1-3. Application of the concepts of professional nursing in a health care setting. Requires satisfactory work performance for a preselected employer and submission of a final project. Prerequisite: NUR 215. May be taken on a satisfactory/unsatisfactory basis.

NUR 390/490. Topics in Nursing and Health Care.
Cr. 1-3. An open topic course which may cover specialized areas of nursing, current concepts, nursing concerns of delivery of health services. The course may be taken more than once for a maximum of six credit hours provided there is not duplication of topics. Prerequisites: junior or senior standing, consent of the instructor and the adviser.

NUR 395/495. Independent Study in Nursing.
Cr. 1-6. Independent study to be approved by the adviser and the guiding nursing professor. Prerequisite: junior or senior standing in the Nursing major. May be taken on a S/U basis.

Note: Prerequisites for the following courses are NUR 310, 315, 320, 330, 340 and at least senior standing.

NUR 410. Tertiary Care in the Community.
3+4, Cr. 5. Current issues and trends in home care, public health, school health, and occupational health are examined as they relate to community health nursing. Community assessment and epidemiological concepts provide the basis for identifying populations at risk. Comprehensive health care is provided to clients/families/groups in a variety of community settings with an emphasis on tertiary care.

NUR 420. Tertiary Care Issues Related to the Family.
Cr. 3. Study of the family at risk. The course focuses on long-term health problems of children, exceptional children, terminally ill children, legal and ethical issues of reproductive health care, and psychosocial problems of individuals and families.

NUR 430. Secondary Care of the Adult/Long-lived Adult II.
3+3, Cr. 4. Emphasis placed on care of the young, middle, and long-lived adult experiencing complex health problems in the secondary setting.

NUR 435. Tertiary Care of the Adult/Long-lived Adult.
3+3, Cr. 4. A study of rehabilitation and gerontological nursing. Emphasis is on tertiary care of adults who have long-term health alterations. Field Trip.

NUR 440. Tertiary Care in Psychiatric Nursing.
Cr. 2. Study of the nursing care of clients experiencing psychiatric disturbances with an emphasis on tertiary care.

NUR 450. Nursing Management in a Health Care System.
Cr. 4. An overview of management theories and roles as applied by a nurse manager in a health care setting. Issues relevant to socialization of the student into the professional role of the nurse are discussed.

Cr. 3. Explores theories, metaphors, and structures which can be used to analyze and understand health care organizations. The potential influence of various environments on health care organizations is addressed.

NUR 470/570. Finance and Marketing for Nursing Practice.
Cr. 3. An analysis of financial and marketing concepts as they relate to issues of health care delivery. Application of these concepts to real-world situations is emphasized.

NUR 475/575. Human Resource Management for Patient Care Delivery.
Cr. 3. An analysis of the ethical, legal, and professional issues involved in managing licensed and unlicensed nursing personnel. Issues of motivation, conflict resolution, performance appraisal, and collective bargaining are analyzed.

NUR 480. Professional Role Practicum.
0-12, Cr. 4. Focuses on role transition from student to professional nurse facilitating synthesis of knowledge and experience in a clinical setting. Fee assessed for required NCLEX review: $250-$350, and NLN comprehensive examination: $15-$20. Prerequisite: satisfactory completion of all required nursing courses. Co-requisite NUR 450.

The University encourages cooperation among the various branches of learning and is pleased to announce these programs which are designed to enhance the student's major area of study. These interdisciplinary minors may be presented in partial fulfillment of the Major Field Requirements for the Bachelor of Arts degree (see page 40), with the exception of the Manufacturing Management Minor which is intended for business and engineering students only.

Restrictions. No more than two courses for these minors may overlap with other requirements whether within general education or within courses in any majors or other minors.

Applied Statistics Minor

Administrative Committee: Associate Professor Ozgur (Decision Science-College of Business Administration, Chair); Associate Professors Hull (Mathematics), Strasser (Decision Science-College of Business Administration); Assistant Professor Shingleton (Economics).

Objectives. The applied statistics minor utilizes an interdisciplinary perspective to develop the student's ability to perform statistical analysis. The impact of statistics profoundly affects society today. Statistical tables, survey results, and the language of probability are used with increasing frequency by the media. Statistics also has a strong influence on physical sciences, social sciences, engineering, business, and industry. The improvements in computer technology make it easier than ever to use statistical methods and to manipulate massive amounts of data. This minor will prepare students to analyze data in their professional work. In addition, it will also provide background for those students who intend to pursue work in applied disciplines.

Administration. This minor is jointly administered by the College of Arts and Sciences and the College of Business Administration.

Requirements. A total of 15 credit hours is required to complete this minor.
Students who intend to complete this minor are strongly encouraged to consult their academic advisor before they begin their junior year. Depending on their major, students are advised to include specific courses as electives in their plans of study. Students should consult their academic advisors to determine which requirements these other courses fulfill. There may not be more than a total of two course overlap with other requirements whether within general education or within a major or a minor.

Students in the minor must complete the requirements for a degree program and the following courses:

- **DS 205** Business Statistics or
- **MATH 240** Statistical Analysis 3 or 4 Cr.
- **DS/MATH 340** Statistics for Decision Making or **ECON 325** Econometrics 3 Cr.
- **MATH 262** Vectors and Linear Algebra 3 Cr.
- **MATH 344** Applied Probability and Statistical Decision Theory 3 Cr.
- **ECON/DS/MATH 493** Seminar in Applied Statistics 3 Cr.

MATH 234 or MATH 264 may be substituted for MATH 262.
Program 2 mathematics majors may substitute MATH 341 for MATH 344.
Decision Science majors may not use DS/MATH 340 to fulfill the minor requirements.

**Environmental Studies Minor**

**Administrative Committee:**
- Professors Arkkelin (Psychology)
- Janie (Geography; Associate Professors Bradstreet, Geiman (Philosophy), Kohlhoff (History); Assistant Professors Al-Jobeh (Civil Engineering), Eberhardt (Biology), Shingleton (Economics).

**Objective.** This minor will broaden the experiences of students with traditional majors in the College of Arts and Sciences by exposing them to approaches used by various disciplines and sectors of society that are attempting to solve complex environmental problems.

**Requirements.** A total of 16 credit hours is required to complete this minor.

**General Education**

For non-science majors the General Education requirements for a natural science should be fulfilled with at least:
- **BIO 172** Diversity of Life 4 Cr. (No prerequisite with instructor's approval)
- **CHEM 111** Introduction to Chemistry 4 Cr.
- **GEO 104** Geomorphology 4 Cr.

**Required Courses**

- **BIO 370** Human Environmental Biology 3 Cr.
- **ECON 210** Environmental Economics and Policy 3 Cr.
- **PHIL 290** Environmental Philosophy and Ethics 3 Cr.

One of the following: 3 Cr.
- **ENGL 390** Topics: Environmental Literature
- **GEO 210** Topics: American Indian on Film
- **GEO 210** Topics: Human Impacts on the Environment
- **GEO 210** Topics: National Parks
- **GEO 230** Air Photo Interpretation and Remote Sensing
- **HIST 492** American Environmentalism
- **PSY 395** Environmental Psychology

One Field Studies Course 3 Cr.

**ENVS 499** Colloquium on Environmental Management 1 Cr.

**Ethnic Studies Minor**

**Administrative Committee:**
- Professors Berg (History), Janke (Geography), J. Peters (Foreign Languages); Associate Professors Venturelli (Sociology), Walton (Social Work).

**Objectives.** The Ethnic Studies minor offers an interdisciplinary perspective on race, ethnicity, and culture, especially on the nature of historical and social constructs that define group and individual experiences, attitudes, and identities. The focus of the minor will be on the following North American ethnic groups: African-American, Chicano/Latino, Native American, and Asian-American. The objectives of the minor have two complementary components. One, more narrowly academic, aims at helping students develop critical thinking using a multicultural perspective with reference to their own backgrounds and those of others, and with materials from within and without the traditional canon. The other, more social and experiential, involves becoming familiar with and appreciating diversity among students and the larger community. Both aim at providing knowledge and understanding which will help students reach across racial and cultural barriers and equip them to function effectively, both professionally and personally, in a multicultural and multiracial world.

**Requirements.** A minimum of 15 credit hours constitutes the minor.

**Program Core**

- **HIST 225** Alternative Perspectives of United States History: Racial Minorities and Mainstream America 3 Cr.

**Elective Courses**

- **ENGL 365** Fiction by American Women 3 Cr.
- **GEO 174** North American Indian 3 Cr.
- **GEO 210** American Ethnic Geography 3 Cr.
- **HIST 322** Slavery, Abolitionism, and Sectionalism 3 Cr.
- **HIST 323** Civil War and Reconstruction 3 Cr.
- **MUS 101** Introduction to Music 3 Cr.
- **SOCW 210** Social Welfare: Policy and Services 3 Cr.
- **SOCW 330** American Minority Lifestyles and Human Rights 3 Cr.
- **SOC 160** Contemporary Social Problems (approval by committee with consultation with instructor required) 3 Cr.
- **SOC 347** Race and Ethnic Relations 3 Cr.
- **THEO 337** Black Theology and Black Church 3 Cr.
- **THEO 356** Christian Response to Social Victims 3 Cr.
- **THEO 368** American Indian Religions 3 Cr.

Additional courses for the minor will consist of topics courses and departmental seminars, each of which must be approved and will be publicized by the administrative committee. Students wishing to use a course not listed must have the course approved by the administrative committee prior to enrolling in the course. No more than one course at the 100 level may apply towards the minor. At least two of the courses applying towards the minor must be at the 300 level or above.

**Film Studies Minor**

**Administrative Committee:**
- Professor Maxwell (English, Chair);
- Professors Falkenstein (Foreign Languages), Juneja (English), Schoppa (History), Sponberg (English), and Trout (Political Science); Associate Professor Byrne (English).

**Objectives.** The film studies minor offers an opportunity to discover the place and
significance of an important twentieth century art which has also been a social force. Film can be studied for its artistry, its historical development, its influence on human perceptions of the world and its relation to such subjects as national cultures, technology, politics, mass media, theater and religion. The minor in Film Studies allows the small scale but concentrated study of one important art, and through it, modern times.

Requirements. At least 15 credit hours in film studies courses constitute a minor. The requirements include:

- ENGL 231 Film Aesthetics: 3 Cr.
- At least one course from each of the following three areas: 9 Cr.
  - Film and Literature
  - Film and Society
  - History of Film

A second course from one of these three areas may be counted toward the minor. Other options include a special topics course (e.g., Film and Religion) approved by the Chair of the Committee.

Film and Literature Area. Offered by the Department of English and the Department of Foreign Languages and Literatures: ENGL 390, FLF 250, FLGR 250, FLS 250. These are special topics courses which from time to time offer appropriate topics, such as Shakespeare on Film, The Novel and Film, Storytelling in Film and Literature. These courses scrutinize both similarities and differences in the handling of a theme and show how literary analysis may be used in understanding the cinema.

Film and Society Area. Offered by the Department of History and the Department of Political Science: HIST 393, POLS 490 (Film and Politics). These courses consider film from the viewpoint of the historian and the social scientist, emphasizing the use of socio-historical themes in film and the effect of film on society and history.

History of Film Area. Offered by the Department of Foreign Languages and Literatures, the Department of History and Christ College: FLGR 260, HIST 390, CC 300. Topics such as History of the German Film, History of the American Film and Film in Asia are offered. These courses consider the historical development of film art and the film industry in the context of one or more national traditions of cinema.

Gender Studies Minor

Administrative Committee: Associate Professor Corazzo (Art, Chair); Associate Professors Esper (Psychology), Logothetis (Nursing), J. Moore (Theology), Rubchak (History), Sandock (English); Assistant Professors Bhattacharya (English), Merchant (Social Work).

Objectives. The Gender Studies minor offers an interdisciplinary perspective on the lives of women and men, especially on the nature of social and cultural constructs that give meaning to the biological difference of sex. The fact that persons are male and female takes on a complex of meaning that can be explored through study of literature and the arts, religion, history, society and social institutions, the professions, human psychology and development, and life sciences. This program, by including courses that study women in culture, society, and history, and that include the best of a growing body of feminist theory and research, also intends to help correct a tradition of scholarship and teaching that has ignored the contributions and concerns of women. Overall, the program will give both men and women a better sense of identity and possibility, and will foster greater understanding of the complex ways in which we, for good and for ill, are influenced by culture and society.

Requirements. A minimum of 15 credit hours (normally five courses) constitutes a minor. Each student must take GNST 201, Introduction to Gender Studies, plus one course in social or life sciences and one course in the humanities or fine arts. The remainder of the program (normally two courses) are elective. All courses should be chosen from a list of courses approved each year by the committee. Regularly offered courses approved by the committee include:

Core Requirement

- GNST 201 Introduction to Gender Studies: 3 Cr.

Social and Life Sciences

- ECON 233 Economics of Race and Gender: 3 Cr.
- PSY 390 Topics: Psychology of Women: 3 Cr.

Humanities and Fine Arts

- ART 311 Art History and Feminism: 3 Cr.
- ART 318 Nineteenth Century European Art: 3 Cr.
- ENGL 390 Women's Writing/Women's Lives: 3 Cr.
- HIST 390 Topics: The Great Witchcraft: 3 Cr.
- THEO 326 History of Women in the Church: 3 Cr.
- THEO 334 Theology of Marriage and Sexuality: 3 Cr.
- CC 300 Love and Friendship: 3 Cr.
- CC 300 Inventing the Body: 3 Cr.
- GNST 201 Introduction to Gender Studies: 3 Cr.

Many additional courses for the minor will be offered as topics courses and departmental seminars, each of which must be approved and will be publicized by the administrative committee each year. Students wishing to use a course not listed above must have the course approved by the administrative committee prior to enrolling in the course.

Human Aging Minor

Administrative Committee:

- Assistant Professor Pepa (Nursing, Chair); Associate Professors G. Evans (Biology), Nelson (Psychology); additional faculty from Sociology, Social Work, and Theology.

Objectives. The Human Aging minor offers an interdisciplinary perspective on the nature of the aging process and the needs of older adults. Aging involves a complex set of changes that involve biological and psychological processes, as well as the role of the older individual in society. The premise of the program is that these changes are best understood and explored in an interdisciplinary context. As the average human lifespan grows longer and the proportion of elderly people in our country increases, study in human aging will become very important to those seeking to understand and render service to our society. Individuals interested in careers in the biomedical or social sciences who are interested in working with older adults will find this minor to be an essential part of their preparation.

Requirements. A minimum of 18 credit hours constitutes a minor. In addition to the core program courses, at least two elective classes (6 credit hours) must also be taken. Acceptable elective classes include the courses listed on the Elective Courses list. Other University classes such as experiential learning and special topics courses may also be allowed as elective classes if they are deemed by the Administrative Committee to have a primary focus on issues related to human aging. Students wishing to use a course not listed on the Elective Courses list to meet elective requirements for the minor must have the course approved by the Administrative Committee prior to enrolling in the course. Examples of classes which may qualify include PSY 485 (Psychology Practicum), SOSC 390 (Social Work Colloquium), and SOC 396 (Internship in Sociology).

Program Core

- PSY 332 Psychology of Adulthood and Aging: 3 Cr.
- SOC 327 Aging in American Society: 3 Cr.
- THEO 359 Theology of Aging: 3 Cr.
- NUR 351 The Aging Process: 3 Cr.

Elective Courses

- BIO 260 Human Nutrition: 3 Cr.
- SOSC 410 Analysis of Social Policy: 3 Cr.
- THEO 338 Understanding Death and Dying: 3 Cr.
- THEO 325 Christian Response to Social Issues: 3 Cr.
- NUR 310 U.S. Health Care Systems: 3 Cr.

Liberal Arts Business Minor

Administrative Committee:

- Associate Dean Antommaria (Chair); Professor Henderson (Economics); Associate Professors Reichardt (Accounting), Schroeder (Decision Science), Steiger (Physical Education).

Objective. The objective of the Liberal Arts Business Minor is to introduce
program is designed to provide the opportunity for students to focus their study in manufacturing planning and control. It will prepare students for entry level positions in manufacturing and the related areas of production scheduling, quality control, production control, and production design. It complements a major area of study in either engineering or business.

Administration. This minor is jointly administered by the College of Engineering and the College of Business Administration. It is limited to students in either of these two colleges.

Requirements. A total of 16 credit hours is required to complete this minor. Students who intend to complete this minor are strongly encouraged to consult their academic adviser before they begin their junior year. A cumulative grade point average of 2.00 or better in the minor is required to earn this minor.

Students are advised to include specific courses as electives in their plans of study. Students should consult their academic advisers to determine which requirements these other courses fulfill.

Business students must complete these courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS 305</td>
<td>Production/Operations Management</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>DS 320</td>
<td>Management Science</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>DS 340</td>
<td>Statistics for Decision Making</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>ACC 320</td>
<td>Cost Accounting</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>ME 354</td>
<td>Manufacturing Processes</td>
<td>4 Cr.</td>
</tr>
<tr>
<td>ME 457</td>
<td>Production Operations and Systems</td>
<td>3 Cr.</td>
</tr>
</tbody>
</table>

The 16 credits earned for the minor by business students may be applied toward the 125 credits required for graduation. Decision Science majors may not use DS/MATH 340 to fulfill the minor requirements. Before taking the minor requirements, students must advance to upper division.

Engineering students must complete these courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS 305</td>
<td>Production/Operations Management</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>DS 320</td>
<td>Management Science</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>ME 253</td>
<td>Manufacturing Processes</td>
<td>4 Cr.</td>
</tr>
<tr>
<td>ME 456</td>
<td>Robotic/automation Systems</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>ME 458</td>
<td>Production Operations and Systems</td>
<td>3 Cr.</td>
</tr>
</tbody>
</table>

No more than seven hours of all specific courses required for an engineering program, excluding free electives, may be used in fulfilling the requirements for this minor.

The Political Communication Minor is a joint program offered through the Departments of Communication and Political Science. The focus is on the electoral process and the role of media in political life. It is intended to address the interests and needs of students considering a career as political reporters, or a career in political life, either as candidates or employees in political organizations. Additionally, it would facilitate the development of skills necessary for effective political action by citizen participants.

Students electing this minor will have access to the Pentium workstation in the Department of Communication, which is available for student projects involving the Internet, as well as access to general campus computing facilities. The global Internet provides excellent resources in political science, communication, and journalism.

Program requirements. A total of 18 credit hours is required for this minor. The required courses are:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 110</td>
<td>Introduction to Internet Communication</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>COMM 336</td>
<td>Internship</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>COMM 369</td>
<td>Mass Media Law and Ethics</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>POLS 220</td>
<td>State and Local Politics in the United States</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>POLS 270</td>
<td>Political Behavior</td>
<td>3 Cr.</td>
</tr>
<tr>
<td>POLS 361</td>
<td>Public Policy</td>
<td>3 Cr.</td>
</tr>
</tbody>
</table>
James W. Albers, Th.D., Dean

The program of graduate studies was initiated by Valparaiso University in 1963 to serve a variety of educational needs, including those of residents of Northwest Indiana. The schedule of courses is structured to meet the needs of part-time and most full-time students.

More than 1500 students have received a master's degree since the inception of this program. Since many of these alumni reside in Northern Indiana and teach in community schools, the University has, through this program, made a major contribution to the lives of the larger community in which it lives.

The following degrees are offered: Master of Arts with concentrations in Applied Behavioral Science: Counseling and in School Psychology, Master of Arts in Liberal Studies, Master of Education, Master of Science in Special Education, Master of Music, and Master of Science in Nursing. Details concerning the requirements for these degrees can be found in the Graduate Division Bulletin, which may be obtained by contacting the Graduate Division, Valparaiso University.

The graduate programs are under the general supervision of the President and Faculty of the University. Its policies are determined by the Graduate Council. The programs and regulations, as defined by the Council, are administered by the Dean of the Graduate Division.

Edward McGlynn Gaffney, Jr., LL.M., Dean
David E. Vandercoy, LL.M., Associate Dean
Curtis W. Cichowski, J.D., Assistant Dean

For more than a century, the School of Law of Valparaiso University has sent its graduates into private and corporate practice as well as government service.

The School was founded in 1879 as the School of Law. In 1905, by keeping pace with advances in legal education and the legal profession, the School of Law has outgrown the three buildings since 1905. In the summer of 1986, the School of Law moved into Wesemann Hall, a new and comprehensive facility located on the wooded western edge of campus.

By limiting enrollment, the School provides a learning environment where the rigors of legal education can be experienced with the help of careful guidance and support by the faculty. The School seeks a sense of community of individuals with mutual interests working together toward shared objectives. Together with these values, the School respects each person's individuality and the importance of analytic, conceptual and interpersonal skills in the training of new lawyers. Classes range from small seminars with fewer than ten students, to large classes conducted according to the traditional Socratic method with approximately eighty students.

As a law school in a church-related university, it seeks to manifest concern for the total needs of its students and awareness of the problems faced by society and the profession.

The School was approved by the American Bar Association in 1929 and since that time it has been accredited continuously by that Association. In 1930, it was admitted to membership in the Association of American Law Schools. The degree of Juris Doctor, which is granted by the School of Law, is approved by the Board of Regents of the University of the State of New York.

The School offers both the traditional three-year, full-time curriculum and a five-year, part-time program. Detailed information concerning the School's admission policies, costs and curriculum can be found in the School of Law Bulletin, which may be obtained at the Office of Law Admissions at the School of Law: 1-800-262-0656; or 219-465-7829.
SUMMER SESSION

EVENING PROGRAM

SUMMER SESSIONS

The University offers two six-week sessions. Although most courses are six weeks, within each six-week term there are usually a number of specialized courses which are offered in shorter periods of time. The dates for Summer I in 1997 are May 20 - June 27, and for Summer II are July 1 - August 8. These sessions are an integral part of the year-round program of course offerings for both graduate and undergraduate students. They are specifically designed to serve a variety of publics: regular Valparaiso University students accelerating their study, in-service teachers desiring further professional education, visiting students from other colleges earning credit while on summer vacation, high school graduates beginning their college careers early and other interested persons who would like to take course work toward degree objectives or simply for personal enrichment.

Students may earn a maximum of seven credit hours in each six-week term, or 14 for the entire summer, which is nearly the equivalent of the amount of credit that can be earned during a regular semester. Students enrolled in a two or four-week intensive course may not be simultaneously enrolled for any other course, except by petition.

Each session features a variety of courses in the morning and in the evening to accommodate the student who wishes to take course work while employed full- or part-time. Also offered in the summer for academic credit are several one-week workshops and other abbreviated format courses.

Educational tours, both domestic and international, are regularly offered during the summer. Information regarding tours is normally included in the Summer Session bulletin, as well as in special descriptive brochures.

Valparaiso University features the three-year baccalaureate program which offers students in selected programs the opportunity to complete their degree in three years by careful planning and the utilization of summer sessions. To complete their program as planned, students must apply for participation in the spring of their freshman year to make certain that they have the proper advising. Students should contact their academic adviser or the Office of the Dean of the College of Arts and Sciences for more information.

THE EVENING DIVISION

The Evening Division is designed primarily to serve the needs of adults who desire to work toward a college degree or to take courses for self-improvement and who must do so in the evening on a part-time basis (eleven or fewer credit hours). The evening program for adult students is also referred to as "VU at Night." Evening courses are the same in content, objectives and credit hours as corresponding day courses.

Through the Evening Division, the University offers selected majors and minors for adult students who wish to complete a baccalaureate program. Students who desire to complete a major that is not offered in the evening may use the Evening Division to complete their general education courses and then transfer to the day division. Students who wish to complete a degree in the Evening Division must work closely with their adviser to develop a plan of study.

Students should consult with the Office of Continuing Education for information about the majors and minors that can be completed through the Evening Division. Since the Evening Division program has been developed with the adult, working student in mind, the courses necessary to complete the major are offered so that a major can ordinarily be completed on a part-time basis over a four-year period. Students who wish to complete a major in less time must consult with their academic adviser. Minors can normally be completed in two or three years, depending on the minor. It is assumed that students who wish to complete their work within these periods will take courses during the fall, spring and summer terms.

Admission to the Evening Division.

Application to the VU at Night program is made through the Office of Continuing Education. Students who are twenty-five years or older, or who have interrupted their formal education for more than three years, are eligible to apply for admission to the Evening Division. Students who do not meet these criteria but wish to be admitted to the Evening Division should consult with the Dean of Continuing Education. Students must complete an application, present proof of graduation from high school (diploma, transcript, or G.E.D.), official transcripts of all previous collegiate work, and have a predilection interview with an Evening Division counselor; College board scores are not required. The final decision for admission to the Evening Division rests with the Dean of Continuing Education, whose decision will be based on a judgment of the student's ability to benefit from the program. The Evening Division also registers students in the INTERLINK (ESL) & SAGE (Senior Adult Growth through Education) programs and guest students from other universities.

Registration in the Evening Division.

Registration in the Evening Division for those adult students taking only evening courses is conducted according to the schedule announced in the brochure published in advance for each semester.

Matriculated undergraduate day students may register for up to six credit hours in the Evening Division, provided that their total course load in evening and day courses does not exceed the maximum load permitted (pages 202-203). Any undergraduate student who registers for a given semester in both day and Evening Division undergraduate courses is considered to be a day student and is charged the regular tuition and fees applicable to a day student for all courses. Graduate students who register for undergraduate courses are charged the appropriate undergraduate rate for undergraduate courses and the appropriate graduate rate for graduate courses. Students who take twelve or more undergraduate credits will be assessed the general fee and must meet the health requirement (page 202).

The Schedule of Classes bulletin lists all courses offered by all departments and colleges of the University in numerical order with evening course sections indicated by "EV" or an abbreviation starting with "E" such as EA or EX.
Admission

Formal application for admission on a form provided by the Admissions Office may be filed at any time, but should be filed well in advance of the semester for which admission is desired. Each application must be accompanied by an Application Fee of $30.00, which is non-refundable. Applications for admission to undergraduate programs are sent to the Admissions Office. For admission to the School of Law, consult the bulletin of the School of Law. For admission to the Graduate Division, consult the bulletin of the Graduate Division.

General Requirements

Valparaiso University admits those candidates who demonstrate potential for success in rigorous academic work. Qualified applicants are admitted regardless of gender, disability, race, color, age, veteran status, or national origin or ancestry. The credentials of each applicant are individually evaluated, with consideration given to academic record, entrance examination scores, character, personality and evidence of motivation for college studies. The University reserves the right to deny admission to any applicant.

To provide uniform predictive norms, the University requires candidates for admission to the freshman class to take either the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board or the ACT Assessment of the American College Testing Program (ACT).

The applicant should be a candidate for graduation from an approved secondary school or possess a state high school equivalency certificate. Valparaiso University's course selections offer flexibility and attention to individual talents and needs; therefore, no one specific high school program is required of all applicants. However, a student planning to attend the University should take the strongest possible college preparatory program available. A minimum of four years of English, three years of mathematics (algebra and geometry), two years of social studies, and two years of laboratory sciences are required. Two years of a foreign language are strongly recommended.

SPECIAL REQUIREMENTS

In addition to the above general requirements, the following colleges have additional requirements.

College of Business Administration. Students should have a minimum of two years of high school algebra and one year of geometry. It is strongly recommended that students take a fourth year of mathematics, pre-calculus or calculus, and be enrolled in a mathematics class during the senior year of high school. Students with less than the recommended background in high school may wish to strengthen their preparation for a college mathematics class either at Valparaiso University or at another college.

College of Engineering. At least three and one-half years of mathematics including one and one-half years of algebra, one year of geometry and one-half year of trigonometry (business, general or shop mathematics may not be counted); and one year of either chemistry or physics with regular laboratory work. These requirements are the minimum; applicants are urged to take four years of formal mathematics and both chemistry and physics.

College of Nursing. The laboratory sciences should include chemistry and biology; a second year of biology is strongly recommended.

Christ College, the Honors College. An academically talented student who is admitted to the University may be invited to apply for admission to Christ College by the Christ College Dean. Qualifications include superior academic performance, demonstrated leadership ability, and interest in pursuing stimulating inter-disciplinary study. Students enrolled in Christ College are concurrently enrolled in one of the University's four other colleges.

SPECIAL STUDENT STATUS

An undergraduate applicant who is not admitted as a regularly classified student, but who is working toward a baccalaureate degree, may be admitted as a special student. Registered nurse students and international transfer students are generally admitted with special student status until appropriate classification can be determined. Students admitted to take classes for credit, but not admitted to degree-seeking status, are special, non-matriculated students. High school students concurrently enrolled at Valparaiso University, students who are taking classes for certification, personal enrichment, or as a pre-condition to admission as degree-seeking, and international intensive English language students are generally admitted as "special, non-matriculated students."

Students admitted through the Office of the Evening Division and Summer Sessions are admitted as special, non-matriculated students. For a change from this status to classified, degree-seeking student status, a formal application through the Office of (Undergraduate) Admissions is required. This status is not available to a student dismissed from the University.

INTERNATIONAL STUDENTS

Valparaiso University welcomes applications from qualified international students. At present, over forty nations are represented in the University's international student population.

Application and Fee. The completed international undergraduate application, together with a check for $50.00 payable to Valparaiso University, should be returned to the Admissions (undergraduate) Office at least three months before the term for which the student is applying. The following items must be received before the Admissions Committee acts on the application:

1. Academic records. Certified, official transcripts (original and English translation) of all secondary and university courses that have been completed or attempted;
2. Proof of English proficiency. Successful completion of the INTERLINK program, satisfactory score (550) on the Test of English as a Foreign Language (TOEFL), or the equivalent is generally required for admission. For information about the INTERLINK Program, write to INTERLINK, Valparaiso University, Valparaiso, IN 46383-6493, U.S.A.; FAX number 303-278-4055.
on the TOEFL, write to TOEFL, Box 899, Princeton, NJ 08540, U.S.A.;

3. Affidavit of Financial Support. The University is required by the Immigration and Naturalization Service to determine that international applicants have sufficient financial resources to cover all their expenses while in the United States. A nonattained amount of this financial support must be submitted;

4. Health Statement. A statement from a physician that the applicant is in good health is required.

Transfer Students. To request credit for university-level work successfully completed outside the United States, the applicant must submit a completed international application and the $50.00 application fee. The applicant is required to include a syllabus or detailed description of the previous coursework.

Intensive English Language Program. The INTERLINK program on the campus of Valparaiso University provides intensive English language training, cultural orientation, and academic preparation for qualified international students, scholars, and professionals preparing to study and work in the United States. The program emphasizes cultural awareness and interpersonal skills necessary for successful academic and social adjustment to life at a university in the United States. Its curriculum focuses on reading, writing, grammar, listening, conversation, pronunciation, and study skills.

Admission to the program is open to adults who have completed secondary school in good standing and are able to meet their educational and living expenses. For information, write to the INTERLINK Program, Valparaiso University, Valparaiso, IN, 46383-6493, U.S.A.

Full-Time Enrollment. All international students who are studying on F-1 visas are required by the Immigration and Naturalization Service to successfully complete at least 12 credit hours per semester; otherwise, the continuation of study on the F-1 visa is jeopardized and the visa may be revoked. All decisions to withdraw from a course, to take a leave of absence, or to transfer to another school should first be discussed with the International Student Adviser.

Tuition. See page 211 in this catalog.

Financial Aid. A limited number of international merit scholarships are available, ranging from $2,500 to $4,000 per academic year. Valparaiso University offers no need-based financial aid to international students.

Employment. A limited number of on-campus jobs are available for international students each year; but these jobs are usually for no more than 5 or 6 hours per week. The Immigration and Naturalization Service does not allow off-campus employment during the first academic year in the United States, but after that it is possible in special cases to obtain approval to work off campus. International students should not plan on paying for educational costs in this way.

Health Insurance. All full-time students are automatically covered for emergency medical treatment up to $500.00, but this is not sufficient coverage for international students; therefore Valparaiso University requires that all international students enroll in a special insurance policy (limit $250,000) in case there are major medical expenses. However, if international students can document that they have comparable insurance coverage provided by their parents or sponsor, they need not enroll in the University policy.

For further information regarding admission of international students, please write to: Coordinator of International Admissions, Valparaiso University, Valparaiso, IN 46383-6493, U.S.A.

Housing Application

An application for University housing ("New Student Enrollment Agreement") is mailed to each newly admitted student. This application and a deposit of $200.00 (tuition and housing) should be returned to the Admissions Office as soon as possible. All checks should be made payable to Valparaiso University. A student who occupies a room in a University residence will have $150.00 of the deposit credited toward the housing and the remaining $50.00 toward tuition and fees.

Advanced Standing By Examination

By incorporating four examination programs within its credit-granting structure, Valparaiso University enables students to earn credit and advanced standing for college-level knowledge obtained before enrolling.

Such credit may be earned through satisfactory scores on the Advanced Placement Examination, the College Level Examination Program of the College Entrance Examination Board, the International Baccalaureate Program, or through the University's own Placement Program. Credit earned by examination may achieve advanced standing, meet General Education Requirements, and accelerate progress into advanced areas of study in an intended major or interdisciplinary program. Credit by examination may reduce the time required to earn an undergraduate degree.

ADVANCED PLACEMENT PROGRAM (AP) OF THE CEEB

Applicants for admission who take one or more of the Advanced Placement (AP) Examinations in May will receive credit toward a degree for scores of 3 and 4; in some departments scores of 3 earn credit. AP examinations must be taken before enrollment as a full-time student at Valparaiso University. For more information, contact the Admissions Office.

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP) OF THE CEEB

The CLEP program provides an opportunity to gain college credit for those individuals who, through experience, independent study or enriched high school courses, have attained college-level knowledge in a particular field. It is not recommended that these examinations be taken only on the basis of normal high school courses. Information and test center locations can be obtained from College Entrance Examination Board, Box 1822, Princeton, NJ 08541. Valparaiso University awards credit for CLEP General Examinations in English, Humanities, Social Science-History and Natural Science, subject to the following conditions:

1. The General Examinations must be taken before matriculation at Valparaiso University.
2. Credit for a CLEP General Examination may not be applied to a major nor to any specific course requirement except as listed below items 4, 5, 6 and 7.
3. Credit for a CLEP General Examination is valid only for students who earn a minimum of 500 on the CLEP General Examination.

INTERNATIONAL BACCALAUREATE

In addition to recognizing the International Baccalaureate Diploma as a basis for admission to the University, the University will award college credit or advanced placement or both based on scores earned on the Higher Level Examinations.

UNIVERSITY PLACEMENT TESTING

During the orientation period that precedes each semester, placement tests are offered to incoming students (freshmen and transfers) in the areas listed below. These tests provide an opportunity for students to attain advanced placement, receive credit, or meet certain General Education Requirements at Valparaiso University. Advanced placement and/or credit are awarded in biology, chemistry, foreign languages, and mathematics, as explained in the listings for those departments. Full information on AP, CLEP and Valparaiso University Placement can be obtained from the Office of the Dean of the College of Arts and Sciences.
Advanced Standing—Transfer Students

The University welcomes transfer students from junior colleges, community colleges, and other accredited institutions of higher education. Students planning to transfer to Valparaiso University must apply for admission through the Office of Admissions at least three weeks before the official registration day of the session for which they are applying and must present evidence of honorable dismissal from the institution last attended. Transfer students will not be admitted to Valparaiso University until official transcripts and other required credentials are on file in the Office of Admissions. After the applicants' records are evaluated, they will be notified regarding the courses which are found acceptable for transfer. Courses with grades of C- or above are accepted as transfer credit for graduation. Grades are not transferable; only credit transfers. For students in the College of Business Administration, see page 158. For registered nurses in the degree completion programs of the College of Nursing, see page 184.

Credits earned more than fifteen years before application for admission are accepted toward graduation on a provisional basis, subject to validation by the first thirty semester hours completed in residence at Valparaiso University with a 2.00 (C) average. Advanced standing is the record of courses and credits accepted by Valparaiso University from another institution. The maximum number of advanced standing credits that may be transferred to this University is 94 credits (Colleges of Arts and Sciences, Business Administration or Nursing) or 106 credits (College of Engineering).

Credit for workshops, institutes or travel-study ordinarily will be granted only for work taken at Valparaiso University. In cases of exception to this restriction, transfer credit for institutes or workshops usually will not exceed one credit per calendar week of instruction. Transfer credit for travel-study programs usually will not exceed two credits per calendar week.

A. General Education. A Statement of Equivalence is prepared by the dean of the college in regard to the General Education Requirements for the respective degree. Transfer students may apply a maximum of six credits in theology from their advanced standing to the theology requirement. Otherwise, transfer students with more than 45 credits but less than 75 credits of advanced standing need to complete two courses (six credits) of theology at Valparaiso University. Transfer students with 75 credits or more of advanced standing need to complete one course (three credits) of theology at Valparaiso University. One course in theology must be taken at Valparaiso University. Students who transfer into the University with 24 or more semester hours of credit are excused from the freshman seminar requirement.

B. Concentration Requirements. Statements of equivalence for academic majors, interdisciplinary programs or professional block schedules are prepared by the colleges or departments concerned.

Registration

All students are expected to register on the official registration days of each semester. For students currently enrolled, a registration period is announced during each semester to file a schedule for the next semester with the Registrar's Office. For freshmen, transfer students and students who have been off campus for at least a semester, a registration period is provided at the beginning of each semester as listed in the University Calendar. (For the registration days and the calendar of the School of Law, consult that School's bulletin.)

HEALTH REQUIREMENT

All students entering the University for the first time and all students who have not been registered at this University during the previous sixteen month period must submit to the University Medical Center a report of their medical history, physical examination and required immunizations from a licensed physician.

MAXIMUM AND MINIMUM CREDIT HOURS

A full-time student is one who is registered for at least twelve semester credit hours. Maximum credit hours allowed per semester without petition are given in the following table:

<table>
<thead>
<tr>
<th>Program</th>
<th>Maximum Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Arts and Sciences</td>
<td>17 Cr.</td>
</tr>
<tr>
<td>(except as required in special authorized curricular e.g., the B.M.E. program and students preparing for licenses in elementary and secondary school teaching)</td>
<td></td>
</tr>
<tr>
<td>College of Business Administration</td>
<td>20 Cr.</td>
</tr>
<tr>
<td>(except in approved block schedules)</td>
<td></td>
</tr>
<tr>
<td>College of Nursing</td>
<td>17 Cr.</td>
</tr>
</tbody>
</table>

Students who maintained a grade point average of 3.00 (B) or better during the previous semester may register for extra hours, provided that their formal petitions for such work are granted. Such a petition must bear the signature of the academic adviser and be addressed to the Dean of the appropriate College. Forms are available from the Registrar's Office. Freshmen are not allowed to carry extra hours during the first semester.

COURSE PREREQUISITES

Students are held responsible for meeting the prerequisites of all courses for which they enroll. In unusual cases, a student may petition to waive a prerequisite. Such a petition must bear the signature of the instructor of the course, the student's academic adviser and the Chair of the Department in which the course is offered, and be addressed to the Dean of the student's College. Forms are available from the Registrar's Office.

CHANGE OF SCHEDULE

Students may change the status of their registration in courses up to the time of the calendar deadlines published in the University catalog. Such changes are matters of serious consideration. Before deciding on such an action, students should obtain the counsel of their course instructor, academic adviser and the Chair of the Department in which the course is offered. Forms are available in the Registrar's Office.

Deadlines for course addition, course withdrawal, filing for S/U grade and withdrawal from the University are published in the University Calendar. Once these deadlines have passed, students are held responsible for completion of courses under the terms of the registration they have selected. Changes in registration after these deadlines are allowed only in exceptional cases where students demonstrate that extreme contributory circumstances have rendered their registration in a course invalid. Serious physical disability, prolonged illness or the death of a loved one: documented occurrences of this kind can be considered reasonable grounds for requesting an exception to the regular calendar deadlines. A petition for exception to a deadline may be addressed to the Dean of the appropriate College; such a petition must be accompanied by supporting reasons for its presentation. Petition blanks are provided by the Office of the Registrar. The integrity of the Valparaiso University transcript and ultimately of the University itself demand that special exceptions be permitted only when special circumstances prevail.

Neither unsatisfactory academic performance, whether caused by inability or lack of application, nor lack of adequate evaluation of a student's performance in a course before the deadline are, in and of themselves, sufficient reason for petition.

Students may officially cancel enrollment in a course during the first six class days without reflection on their permanent record. All requests for adding a course during the first six class days remain at the discretion of the appropriate academic dean or department chair. From then until the published deadline, a student may officially withdraw from a course with a grade of W (withdrawal) on the student's permanent record. Students are not permitted, without an approved petition, to cancel enrollment in courses after the end of the ninth week of a semester. Not attending class does not constitute formal withdrawal from a course.

After the drop/add period and until the seventh week of a semester, the tuition fee is prorated according to a schedule which can be viewed in the Office of the Registrar. These rules apply only if students change from full-time to part-time or the reverse, or if part-time students adjust their academic class loads.

APPEALS

Denial of a petition by a student's Dean may be appealed to the Committee on Academic and Professional Standards. The appealing student should append reasons for submitting his appeal to the Committee.
Academic Policies

GRADING SYSTEM AND QUALITY POINTS

For the School of Law and the Graduate Division, refer to the appropriate bulletin. The course grades reported and recorded in the Registrar’s Office are as follows. The corresponding number of quality points per credit hour are also indicated.

Grade | Quality Points
---|---
A+ | 4.0
A | 3.7
A- | 3.3
B+ | 3.0
B | 2.7
B- | 2.3
C+ | 2.0
C | 1.7
D+ | less than satisfactory, but passing
D | 1.3
D- | 1.0
F | 0.7
I | incomplete
W | authorized withdrawal
S | satisfactory
U | unsatisfactory

Grades A through D- give credit toward graduation. A student who receives a grade of D- in a course is advised not to enroll in other courses for which the given course is a prerequisite. Candidates for graduation must have a standing of C (2.00 grade point average) or better in all their work at Valparaiso University.

The grade I (incomplete) may, at the discretion of the instructor, be given to a student under the following conditions:
1. The work completed in the course so far is passing (average D- or better).
2. The student has been unable to complete the remaining work in the course because of circumstances beyond his or her control.

An I (incomplete) received in one semester or summer session must be removed by the beginning of the official examination period of the next succeeding semester or it automatically becomes a grade of F. The student’s deadline for submitting the outstanding work to the instructor shall be one week before that date. No Semester Honors will be given if the student received a grade of Incomplete at the official end of the semester concerned.

Authorized withdrawal from a course or from the University within the published deadlines gives the grade of W to each course withdrawn. This mark carries no credit.

The satisfactory grade, S, is given under the following conditions:
1. The course is designated in this catalog to be graded S/U or the student officially opts or petitions to have the S/U grade in the course.
2. The student’s work in the course is satisfactory, of a quality which is comparable to a grade of C (1.7 quality points per credit hour) or better.

Course credit hours with grades of S count toward graduation but are not counted in computing the student’s grade point average.

The unsatisfactory grade, U, is given under the S/U grade option (condition 1 above) when the student’s work does not meet the course objectives (condition 2 above). Course credit hours with grades of U do not count toward graduation and are not counted in computing the student’s grade point average.

The failing grade, F, is given under any of the following circumstances:
1. Work done in a course is below a minimum standard required for passing.
2. A student fails to complete work to remove a grade of I (incomplete) before the deadline stated above.
3. A student withdraws from a course without filing the necessary form and obtaining the necessary approval.
4. A student withdraws from a course after the published deadline.
5. A student withdraws from the university without giving official notification. F grades are given in all courses thus dropped.

Only in exceptional cases, such as prolonged or serious illness, does the appropriate committee permit a student to withdraw from a course without a grade of F after the deadline for withdrawing from a course with a grade of W. To withdraw from a course a student requires the filing of the appropriate form with the signatures of the student’s academic adviser, the instructor, and the Chair of the department of the course dropped and the Dean of the student’s College. Withdrawal from the University requires notification of the Office of the Vice President for Student Affairs. The appropriate form is obtainable from that office.

ADMISSION TO COURSES ON A SATISFACTORY/UNSATISFACTORY BASIS

Undergraduate students are encouraged to venture outside the areas of their concentration, investigate new disciplines, and discover new, perhaps unsuspected, interests. If a student chooses, the Satisfactory/Unsatisfactory grading option may reduce the anxiety about electing a course in an area in which the student has had little or no prior experience. Students who are interested in conveying maximum information on their transcripts to professional and graduate school should speak to their advisers and the dean of their college prior to electing this option.

Certain courses normally result in S/U grades, as noted in the catalog descriptions. Physical Education courses 101-105 have the S/U option which the student may elect by declaring this choice in the usual way. In addition to any of these courses, the student may take one course, normally a letter grade (i.e., A to F), each semester on a satisfactory/unsatisfactory basis subject to the following conditions:
1. Such courses must not be selected from:
   a. The student’s major or minor field or fields;
   b. The required courses for any professional degree or pre-professional program, except for liberal arts electives or other courses approved by the Dean of the student’s College;
   c. A repeated course, if not originally taken on the S/U basis;
2. Such registration must be signed by the student’s academic adviser;
3. A decision to elect a course on an S/U basis must be made by the end of the fourth full week of the semester for courses of usual length. After this deadline, the S/U grading basis may not be changed. This deadline applies proportionately to Mini, Summer Session or seven-week courses.

NOTE: In selection of the S/U option, students are strongly advised to discuss the implications of that option with their adviser concerning entrance into professional schools.

ADMISSION TO THE COURSE INTENSIFICATION PLAN

Students may propose a special project for earning one extra credit in one liberal arts course in which they are enrolled in a given semester. This opportunity is part of the University’s Course Intensification Plan. The following regulations pertain to this option for a student:
1. The course must be offered in the College of Arts and Sciences.
2. The course must be offered in the Schedule of Classes for three or more credits.
3. The initiative and responsibility for developing a satisfactory proposal lie with the student.
4. The proposal is subject to the approval of the instructor of the course.
5. Approved proposals must be filed in the Registrar’s Office during the period specified in the academic calendar.

The Course Intensification Plan is a type of honors work, and under no circumstances should be considered a substitute for regular course work.

ADMISSION TO COURSES AS AN AUDITOR

A regularly classified student may register in a course as an auditor only with the permission of his adviser and the chair of the department which offers the course. An auditor may not be admitted to the final examination and is never granted credit for the course audited. No additional fee is charged when the student pays full tuition. Once in a course as an auditor, the student cannot change the status of his enrollment to get any kind of grade in the course.

CREDIT HOURS

A credit hour (abbreviated Cr. in lists of courses) represents one hour of recitation or lecture, or two or more hours of laboratory, each week for one semester. If time outside the laboratory is required to prepare laboratory notes or reports, two hours may be equivalent to one period of class work. Drawing, shop work and other courses
demanding no outside preparation require a minimum of three hours for one credit hour. See specific course descriptions for the exact number of hours required.

For short (seven weeks) courses, the time per week per credit hour is twice that for the semester.

**REPETITION OF RESIDENT COURSES FOR CREDIT**

Unless repetition of a course for credit is permitted as shown in its catalog description, only the credits, grade and quality points received the last time the course is taken by a student at Valparaiso University shall be used in determining credit for graduation and the cumulative grade point average. A grade of W shall be excluded from this policy. The student's transcript shall record all grades, original, and repeat.

A student who elects to repeat a course must secure the appropriate signature on the form provided for this purpose before repeating the course. The form is available in the Registrar's Office.

**STANDING OF A STUDENT**

A student's standing is determined by the ratio of the total number of quality points to the total number of credit hours attempted in all work at Valparaiso University except courses graded S/U. Thus, a student who makes an average mark of C (2.0 quality points per credit hour) throughout the course of 124 semester hours will have 248 quality points, 124 credit hours and a standing of 2.00. The standing for a semester's work is understood to be the ratio of the number of quality points gained to the number of credit hours scheduled. Standing is also referred to as the grade point average.

Note the above exception regarding repetition of a course.

**CLASSIFICATION OF A STUDENT**

In the College of Arts and Sciences, College of Business Administration and College of Nursing, a student must have 24 semester credits and 48 quality points to be classified as a sophomore; 60 semester credits and 120 quality points to be classified as a junior; 94 semester credits and 188 quality points to be classified as a senior.

A student in the School of Law should consult that School's bulletin.

**SEMESTER GRADE REPORT**

Such a report is sent only to the student and only to the address indicated by the student on the official biographical form. This report is considered by the University to be a progress report maintained by the University.

**CLASSIFICATION OF COURSES**

The courses offered by the University are classified as follows:

- Lower division courses, numbered 100-299;
- Upper division courses, numbered 300-499;
- Graduate- undergraduate courses, numbered 500-599;
- Graduate only courses, numbered 600-699.

**LEAVE OF ABSENCE- UNDERGRADUATE STUDENTS**

At the end of a semester, a student who has completed at least one full semester of work in residence and who is in good academic standing may apply for a leave of absence. This absence requires approval of the academic adviser and the academic dean. The necessary form may be obtained from the Registrar's Office. This student may return to Valparaiso University without formally applying for readmission within a period of two years following the start of the leave of absence. However, the student must notify the Registrar's Office if the return date as originally stated is changed within the two year period. Leaves are not given to students who withdraw from the University during a semester.

All leaves must be requested before the beginning of the semester in which they are to take effect.

**READMISSION OF FORMER STUDENTS TO UNDERGRADUATE AND PROFESSIONAL PROGRAMS**

Students who have fully matriculated at Valparaiso University and who have interrupted their studies for whatever reason must apply for readmission to the University through the Readmissions Committee. The request for readmission is to be sent to the Registrar. Exceptions are students who took a formal leave of absence under the conditions specified above, and students enrolled in the Deaconess Training Program, who usually spend one year in in-service training. (Cooperative Program work semesters and off-campus special seminars are considered to be continuation of study, for which students have officially registered.)

Application for readmission must be made at least one week before the registration date of the term in which the student wishes to enroll. Applications will not be accepted after this date. The student being readmitted must present the necessary information such as records of attendance and grades at other colleges, and a new medical examination report if the student has been out of school during the previous sixteen month period, before action will be taken on the request to be readmitted.

Credit hours earned more than fifteen years before application for readmission (at Valparaiso University or at another accredited institution) are subject to reevaluation and, if accepted by the appropriate University standing committee, may be subject to validation by the first year's work (30 semester credits) completed in residence with a 2.00 grade point average.

The case of each student applying for readmission is presented to the Readmissions Committee. The Registrar's Office notifies the student of the Committee's decision. Students with outstanding financial obligations to the University are not considered for readmission until these obligations have been paid in full.

**ADVANCED STANDING- RESIDENT STUDENTS**

Any resident student who has taken academic course work at any other accredited educational institution must request the Registrar of that institution to send an official transcript to the Valparaiso University Registrar's Office. Where an evaluation is made for possible acceptance of transfer credits. Courses with grades of C- or above are accepted for transfer credit. Grades are not transferable; only credit transfers.

Credit for workshops, institutes or travel-study ordinarily is granted only for work taken at Valparaiso University. In cases of exception to the preceding restriction, transfer credit for institutes or workshops will not exceed one credit per calendar week of instruction. Transfer credit for travel-study programs will usually not exceed two credits per calendar week.

Resident students who wish to take courses at other approved schools concurrently with their Valparaiso work should refer to the appropriate paragraph under Residence Requirements on page 209.

**DECLARATION OF A MINOR IN THE PROFESSIONAL COLLEGES**

Students in the professional colleges may declare a minor in the College of Arts and Sciences and may have this minor noted on their official transcripts. No more than six hours (seven in the College of Engineering) are required of the professional program may be used in fulfilling a minor offered by the College of Arts and Sciences.

**TRANSFER TO ANOTHER PROGRAM**

If a student transfers from one major or interdisciplinary program to another, all requirements of the new specialization must be met. Such a transfer subjects credits previously earned to a reevaluation. In certain cases the change of program may result in some loss of credit (e.g., a course taken as a General Education Requirement is superseded by another course required for the new major). Therefore, such transfers may not be made without the written approval of the advisers and deans concerned. Necessary forms may be obtained from the Registrar’s Office.

In the case of transfer from one college to another, note well in the requirements for the degree of the new college all restrictions on credit hours which may be transferred from the former college.

**EXAMINATIONS**

Written tests and quizzes are given from time to time during the semester at the discretion of the instructor.

A final examination is required in all courses of 3 credit hours or more. Exceptions may be made for such courses as independent study, practica and internships, performance, studio and activity courses. Final examinations are held at the close of each semester and, for courses of 3 credit
hours or more, must be conducted according to a schedule published by the Registrar.

Final examinations in courses of less than three credits are conducted during regularly scheduled class periods.

In order to give students adequate opportunity to prepare for final examinations, no tests may be given in courses of 3 credit hours or more within seven days before the beginning of the examination period.

Exceptions to these policies require the written approval of the Dean of the College in which the course is offered. Exceptions to the schedule are usually approved when a student has three or more examinations scheduled on the same day.

ACADEMIC DEFICIENCY

In the College of Arts and Sciences, College of Business Administration, College of Engineering and College of Nursing, students whose cumulative resident grade point average falls below 2.00 are considered academically deficient. Such students may be denied the privilege of continuing their studies at the University unless they succeed in improving the quality of their academic work to the satisfaction of the faculty during the following semester. The Dean of each College establishes procedures to give students who are academically deficient timely warning of their being denied continuation of their studies.

Deficiency warnings are sent to parents and guardians of all undergraduate students in the day program who are less than twenty-one years of age, unless the students who are not a dependent of their parents or guardians notifies their academic dean to the contrary.

For regulations concerning academic deficiency in the School of Law, see School's bulletin.

Dropped for Low Scholarship.

Whenever, in the judgment of an academic dean, students who are academically deficient would benefit from an interruption of their work in a particular college of the University, the dean will notify the students in writing that they have been dropped and will specify the period of time for which they have been dropped and the conditions which they must satisfy in order to be readmitted.

ABSENCE FROM CLASS

All students are expected to attend every one of their classes unless their absence has been approved by the instructor concerned or the appropriate dean. Absence from class is primarily a matter between the student and the instructor of the class. It is the students' responsibility to discuss with their instructors the reason for their absence and to learn what make-up work may be required.

WITHDRAWAL FROM THE UNIVERSITY

For the School of Law, consult that School's bulletin.

A student who wishes to withdraw from the University for the remainder of a semester or session must apply to the Vice President for Student Affairs before the deadline date for a permit to withdraw (see calendar at front of catalog). Upon return of the permit properly signed to the Registrar's Office, the Registrar authorizes the return of such fees as are refundable. In the case of a student who is less than twenty-one years of age, the parent or guardian is notified of the withdrawal by University Registrar. If students withdraw after the seventh week of the semester, they are ordinarily not granted readmission for the following semester, unless extreme contributory circumstances such as severe illness caused the withdrawal.

The term "honorable dismissal" refers to conduct and character only, not to class standing and grades. It is not granted unless the students' conduct and character are such as would entitle them to continue in the University.

A student who withdraws from the University without authorization, or after the published deadline, is not entitled to refunds of any kind and the instructor of each course in which the student is enrolled is required to report a final grade of F to the registrar. For the School of Law, consult that School's bulletin.

Graduation

RESPONSIBILITY OF THE STUDENT

Every candidate for a degree is personally responsible for meeting all requirements for graduation. No University official or adviser can relieve the student of this responsibility. Students in the undergraduate program of the University may fulfill the requirements for graduation under any catalog issued during their years of attendance, beginning with the year they first entered the University, provided there is no absence of five or more years between periods of attendance. (For the School of Law, consult that School's bulletin.) All requirements in one catalog issue must be met.

Students who return to the University after an absence of five or more years may no longer be a candidate for a degree on the basis of the catalog requirements covered by their previous years of attendance, but must fulfill for graduation all the requirements and provisions beginning with the catalog of the year in which they reenter the University. In addition, credits earned at Valparaiso University more than fifteen years before reentry are subject to reevaluation and shall not be accepted toward graduation requirements unless approved by the appropriate Faculty or University Senate Standing Committee.

SECOND DEGREES

In order to receive a second degree, a student must earn at least thirty semester credits and sixty quality points in excess of the total number of semester credits required for the first degree and, in addition, must fulfill all the specific course requirements for the second degree. Students in the Graduate Division should refer to that Division's bulletin for specific information.

CREDIT AND QUALITY POINT REQUIREMENTS

Candidates for graduation with the Associate in Science degree or a bachelor's degree must have a standing of 2.00 or more in all their work at Valparaiso University. In addition, candidates for a bachelor's degree must have a standing of 2.00 or more in any major, minor or interdisciplinary program, based on their work at Valparaiso University. Also, candidates for the Associate in Science degree must have a standing of 2.00 in all of their science courses at Valparaiso University. In the computation of the students' standings, grades of D+, D, D- and F are included. Grades of S, U and W are not included.

Candidates for a master's degree or the Juris Doctor degree should consult the appropriate bulletin for the corresponding requirement.

 Residence Requirements

Regardless of other degree requirements, candidates for bachelor's degrees must meet the following requirements in residence at Valparaiso University:

1. At least one-half the number of credit hours required for any major, minor or interdisciplinary program (a minimum of 15 credit hours in the area of foreign languages);
2. At least three credits in theology;
3. One course designated as Integrative Studies for degrees in the College of Arts and Sciences;
4. At least thirty of the last forty credits presented for the degree.

Residence requirements for master's degrees and the Juris Doctor degree may be found in the appropriate bulletins.

Ordinarily, credit is not given for courses taken concurrently at other approved schools or for correspondence courses taken during a student's enrollment at this University. Any exception to this policy must have the approval of the student's academic adviser, the Dean of the appropriate College and the Committee on Academic and Professional Standards. Note that credit for courses taken under one of the International Study Seminars or Summer Semester programs described on pages 12-13 and 18-23 apply as taken in residence at this University.

Application for a Degree

A student who wishes to receive a degree at the end of a Fall Semester must formally apply for the degree on a form provided for this purpose by the Registrar's Office not later than the preceding April fifteenth. A student who wishes to receive a degree at the end of a Spring Semester or a Summer Session must formally apply for the degree on a form provided for this purpose by the Registrar's Office not later than the preceding October first.

A summer session student, not enrolled in the previous academic year, who expects to receive a degree at the end of a Summer Session must formally apply for the degree at the beginning of that Summer Session. If, for any reason, students (except a graduate student) do not meet the requirements for graduation after filing their application, the students must file a new formal application by the beginning of the session in which they then expect to receive a degree.
Candidates for degrees in August or December, who expect to complete requirements in absentia, must be sure that all course work is completed and the session ended by the deadline date set for candidates who are registered on campus. Official transcripts must be on file in the Registrar’s Office no later than ten days after the close of a semester or session. This does not apply to May candidates, as these candidates must be certified before the May Commencement. Further information will be furnished upon request from those candidates completing degree requirements in absentia.

PRESENCE AT COMMENCEMENT
A candidate for graduation at the end of the Spring Semester must be present at commencement in order to receive a degree. Degrees are not conferred in absentia, except on special permission from the President of the University. Students who complete their work toward a degree at the end of a Fall Semester or of a Summer Session may be granted the degree at that time.

BACHELOR’S DEGREES WITH HONORS
Students who have been in attendance at Valparaiso University at least two years (a minimum of sixty credit hours) and who have maintained a standing of 3.80 in their work at this institution will be graduated Summa Cum Laude.

Students who have been in attendance at Valparaiso University at least two years (a minimum of sixty credit hours) and who have maintained a standing of 3.60 in their work at this institution will be graduated Magna Cum Laude.

Students who have been in attendance at Valparaiso University at least two years (a minimum of sixty credit hours) and who have maintained a standing of 3.40 in their work at this institution will be graduated Cum Laude.

See the bulletin of the School of Law for the Juris Doctor degree with honors.

SEMESTER HONORS
An undergraduate student (freshman through senior) who achieves a standing of 3.50 in any semester except the last semester before graduation will be awarded honors under the following restrictions:

1. The student received no grades of I or U at the official end of the semester concerned.
2. The student was registered for at least fourteen credit hours of work for that semester on campus in the Colleges of Arts and Sciences, Business Administration or Nursing, at least fifteen credit hours in the College of Engineering, or at least twelve credit hours in an International Studies Semester, Special Off-Campus Semester or any other approved cooperating program (pages 12-13 and 19-23).

Graduating senior honors are announced at Commencement and are based on the work of the last two semesters. The standing must be 3.50 cumulatively for the two semesters; restriction 1 above applies, and the total credit hours for both semesters must be at least the cumulative total from restriction two above (for example, in the College of Arts and Sciences, a total of twenty-eight credit hours for two semesters on campus or a total of twenty-six hours for one semester on campus and one semester special off-campus program, e.g., the Washington Semester).

For honors in scholarship in the School of Law, consult that School’s bulletin.

TRANSCRIPTS OF ACADEMIC RECORDS
The Family Educational Rights and Privacy Act of 1974 (Buckley Amendment) provides, in part, that the institution will maintain the confidentiality of student academic records. The University’s entire policy may be found in the Student Handbook.

No one outside the University shall have access to, nor will the University disclose any information from, student academic records without the written consent of students, except to persons, organizations or agencies which are permitted to receive such information under the Act.

With regard to transcripts of academic records, the University’s policy covering “dependency” determination is to consider all undergraduate students in the day program as “dependent,” unless they specifically inform the Registrar’s Office in writing at the beginning of each academic year that they consider themselves to be “independent.”

Official transcripts of academic records are released only upon the written request of the student.

TUITION AND FEES

EXPENSES

HOUSING REGULATIONS

REFUNDS

Tuition and Fees

Undergraduate and Professional Tuition, Full-Time Students

TUITION AND FEES EXPENSES

HOUSING REGULATIONS

REFUNDS

Tuition and Fees

Undergraduate and Professional Tuition, Full-Time Students

VU COLLEGE OR SCHOOL EACI SEMESTER ACADEMIC YEAR (TWO SEMESTERS)

College of Arts and Sciences $6,755.00 $13,510.00

College of Business Administration 6,755.00 13,510.00

College of Nursing 6,755.00 13,510.00

College of Engineering 7,305.00 14,610.00

Returning Students* 7,030.00 14,060.00

School of Law 7,830.00 15,660.00

* Enrolled before 8/93.

FEES

The general fee for each semester amounts to $235.00 for all full-time undergraduate students and $225.00 for all full-time law students. The fee is paid by all full-time undergraduate students registered for at least 12 credit hours per semester. The fee is used to defray the cost of the following services: health and hospitalization program, co-curricular activities, and Student Senate. Laboratory fees are not charged for regular courses. Students enrolling in laboratory courses are financially responsible for breakage or damage to equipment.

Performance Music Fees. The University encourages students to continue performance music instruction by charging modest fees for private lessons. Students pay a fee of $190.00 per semester per course for instruction in private or class lessons in performance music. There is no additional charge for use of an instrument or practice room.
Tuition and Fees, Expenses, Housing Regulations, Refunds

Students taking private lessons are held responsible for making arrangements with the instructor to complete all lessons during the semester. If the student is unable to complete within the semester the series of lessons for which he was assessed, a report should be made immediately to the Chairman of the Department of Music by the student. The performance music fee is not refundable after the tenth class day of a semester.

Tuition and Fees For Part-Time Day Students, Undergraduate and Professional Programs

Students who register for less than 12 credit hours are classified as part-time students. Such students pay a tuition charge of $565.00 per credit hour except in the School of Law. For the School of Law, see the appropriate bulletin. This charge does not include the use of facilities of the health service nor participation in the student insurance plan.

Auditore pay $585.00 per credit hour equivalent.

Tuition for students enrolled only in courses in the Evening Division offered by the University is $175 per credit hour.

Students taking more than 11 credit hours in the Evening Division classes is considered to be a day student and is charged the regular charges applicable for a day student. A day student may not take more than 6 credit hours in the Evening Division program.

Tuition charges for certain special programs for registered nurses sponsored by the College of Nursing may be determined by contacting the Dean, College of Nursing, or the Office of Admissions.

SPECIAL FEES

Application—$30.00. This fee is payable at the time of application for admission to the University. It is not refundable.

Readmission—$20.00. This fee is payable at the time of application for readmission to the University. It is not refundable.

Tuition Deposit—$50.00. This fee is required of all new students, both resident and commuter. For the School of Law, see the appropriate bulletin. A refund of $25.00 is given if a written notice of cancellation is received before July 15 for the fall semester or before December 1 for the spring semester.

Housing Deposit—$200.00 ($50.00 for returning students). This fee is required of all students requesting University housing. In case of cancellation, see Refunds on pages 214-215.

Nursing Liability Insurance—$25.00. In connection with the clinical practice component of the nursing program, all students in the College of Nursing, beginning with the sophomore year, must secure and provide proof of professional and personal liability insurance.

Vehicle Registration—$25.00 per year.

Study Abroad, Cambridge, England—$630.00. Each participant pays this fee.

Study Abroad, Reutlingen, Germany—$690.00. Each participant pays this fee.

Study Abroad, Puebla, Mexico—$575.00. Each participant pays this fee.

Study Abroad, Hangzhou, China—$530.00. Each participant pays this fee.

Study Abroad, Namibia—$420.00. Each participant pays this fee.

Transcript—No charge is made for any transcript issued. No transcript of a student’s record is released until the student has met in full all obligations to the University, financial or otherwise.

Late Registration or Confirmation—$40.00. This fee becomes effective on the first day of classes for fall and spring semesters only. In no case are students who register or confirm late exempted from this fee, unless for valid reasons they have been given written authorization for exemptions by the Dean of Men or Dean of Women.

International Student Transfer Credit Evaluation—$125.00. This fee is payable by each international student who transfers college level work for credit. The fee is used for the professional evaluation of the work to be transferred. This fee must accompany the transcript or certified copy sent to the Office of Admissions.

PAYEE

Drafts, checks and money orders should be made payable to Valparaiso University.

Expenses

An estimate of normal expenses for a semester in each college is given below.

<table>
<thead>
<tr>
<th>College and Category</th>
<th>Average Cost Per Semester</th>
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<tbody>
<tr>
<td>College of Arts and Sciences</td>
<td></td>
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<tr>
<td>Tuition</td>
<td>$6,755.00</td>
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<tr>
<td>General Fee</td>
<td>235.00</td>
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<tr>
<td>Rent of Room and Board</td>
<td>1725.00</td>
</tr>
<tr>
<td>Books and Supplies</td>
<td>200.00</td>
</tr>
<tr>
<td></td>
<td>$8,315.00</td>
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<tr>
<td>College of Business Administration</td>
<td></td>
</tr>
<tr>
<td>Tuition</td>
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</tr>
<tr>
<td>General Fee</td>
<td>235.00</td>
</tr>
<tr>
<td>Rent of Room and Board</td>
<td>1725.00</td>
</tr>
<tr>
<td>Books and Supplies</td>
<td>200.00</td>
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<tr>
<td></td>
<td>$8,315.00</td>
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<tr>
<td>College of Engineering</td>
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<tr>
<td>Tuition</td>
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<tr>
<td>General Fee</td>
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<tr>
<td>Rent of Room and Board</td>
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<tr>
<td>Books and Supplies</td>
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<td></td>
<td>$8,315.00</td>
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<tr>
<td>College of Nursing</td>
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<td>Tuition</td>
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<tr>
<td>General Fee</td>
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<td>Rent of Room and Board</td>
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<tr>
<td>School of Law</td>
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<td>Tuition</td>
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<tr>
<td></td>
<td>$8,355.00</td>
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</tbody>
</table>

*Enrolled after 8/93.

Estimated expenses for room and board are based upon a minimum meal plan buy-in of $675.00 per semester and double occupancy room rent of $1,050.00 per semester; Wehrenberg Hall is $1200.00 per semester. A limited number of single rooms may be made available at an additional cost of $525.00 per semester.

The expenses for each academic year (two semesters) are approximately twice the above semester figures.

Clothing, travel, incidental expenses, fees for performance music lessons and special fees (page 212) are not included in these estimates.

Amounts due the University are payable in full at the time of registration for each semester.

Parents and students are billed approximately three weeks before registration with an invoice containing the estimated charges for the coming semester. Either payment or evidence of participating in a deferred payment plan as outlined below must be received in the Student Accounts Office one week before registration. The minor adjustments in the billing required by additional course fees, for example, are detailed in a statement forwarded to parents and students approximately one month after registration. Credits for scholarships, loans, grants, etc., may be deducted in arriving at the balance due before registration.

Amounts to be earned through campus employment may not be deducted, as these are paid during the course of the semester directly to the student through the University’s regular payroll procedure.

Each student registering at Valparaiso University assumes responsibility to pay all college-related expenses not covered by financial aid.

Students who withdraw from the University must make arrangements to meet all outstanding financial obligations to the University. Examples of such obligations are tuition and fees, room and board, library fines, health fees, etc. The student’s transcript is not released until payment of all obligations has been made.

Each graduating student must pay any remaining financial obligations to the University before graduation.

No degree is conferred upon and no transcript is given for a student whose account with the University or the Student Senate has not been settled in full.

Loans such as the Federal Perkins Program or Valparaiso University Student Loans become due as stated in the promissory note signed by the student. Transcripts are not released to students who are in arrears on these loans.

EDUCATIONAL EXPENSE PAYMENT PLANS

Valparaiso University participates in a deferred payment plan for the convenience of those students and parents who may wish to spread out payment over the school year or beyond. Under this plan, monthly payments may be arranged for the payment of tuition, fees, room and board.
Listed below, along with a brief description, is the plan approved for use by the University. Detailed information is normally sent directly to each admitted applicant by the plan sponsor. Should a student not receive this information or should a student have further questions, the address and phone number of the plan is also provided.

Academic Management Services, Inc. 50 Vision Boulevard, East Providence, Rhode Island 02914-0506. Phone: 1-800-635-0120. This plan is a monthly payment plan designed to relieve the pressure of “lump sum” payments by allowing participants to spread the cost over a period of months without borrowing or paying interest charges. The plan does require payment of an application fee.

**Housing Regulations**

The University requires first-year students, sophomores and juniors to live in residence halls. Class standing is determined by student classification policy, page 206. Exceptions are made for veterans, those who will be 21 before the next January 1, those living with parents or spouse, and sophomore and junior fraternity men who live in approved fraternity houses. All sophomore and junior students who return from their fall semester of International Studies or other cooperative off-campus programs are required to live in University operated residence halls during the spring semester.

Senior, graduate and law students may apply to live in University residence halls. The Housing Office also maintains a listing of rooms in private homes, apartments and homes for sale or rent. Students desiring such accommodations should plan to visit the campus at least six weeks before the semester of enrollment to inspect the available listings and make arrangements with the individual landlords. Every landlord whose property is listed has signed a non-discrimination statement. The University is not involved in arrangements between students and landlords, except in the event of racial discrimination.

**Application.** An application form for University housing is mailed to each new student with the New Student Enrollment Agreement. This application and the $200.00 deposit (tuition and housing) should be returned to the Office of Admissions as soon as possible. All checks should be made payable to Valparaiso University. A student who occupies a room in a University residence hall will have $150.00 of the deposit credited toward housing costs and the remaining $50.00 toward tuition and fees.

All returning students who are required to live in University residence halls according to University housing regulations must complete an Upperclass Housing Agreement form and make an advance room deposit of $50.00 at the Business Office on or before the housing deadline date indicated by the Housing Office.

**Assignment Policy.** New freshman and transfer student assignments are made by the Housing Office in the order in which their New Student Enrollment Agreements and deposits are received according to space availability.

Returning upperclass student assignments are made according to the guidelines established by the Housing Office. Assignments are made with the goal of establishing and developing positive residence hall communities. In those halls where the number of applicants exceeds the number of spaces available, assignment is made by class standing and/or lottery. All Upperclass Housing Agreements received before the deadline indicated by the Housing Office will be given equal consideration.

The University will endeavor, but cannot guarantee, to assign accommodations according to the preferences indicated by the student.

Any request for a change in residence hall assignment must be submitted in writing and approved by the Housing Office.

The University reserves the right to make changes in residence hall assignments if necessary for the most effective accommodation of the student body.

**Refunds—New Students.** The Housing Deposit is refunded in full if written notice of cancellation is received by the Admissions Office on or before May 1 for the fall semester, or on or before November 1 for the spring semester. No refund will be given if enrollment cancellation notice is given after these respective dates.

**Refunds—Returning Students.** The full deposit is refunded if written notice is given to the Housing Office on or before the application deadline. One-half of the housing deposit is refunded if written notice of cancellation is received by the Housing Office on or before July 1 for the fall semester, or on or before December 1 for the spring semester. No refund is given if cancellation is given after July 1 for fall semester and December 1 for spring semester. The Upper Class Housing Agreement may not be cancelled after July 31 for fall semester and December 31 for spring semester by students not required to live in University housing.

If a student is denied readmission or if the University is unable to provide housing, the full amount of the deposit will be refunded.

**Vacation Periods.** The residence halls close during the Thanksgiving and spring vacation periods, as well as during the break between the fall and spring semesters. Residence hall accommodations are available during vacation periods for international students and other residents who meet certain criteria. Contact the Housing Office for more information.

**Roommate** Preferences should be listed on the housing application. New students are notified in July of their roommate assignments.

Arrival at the residence hall for new students and new transfer students should coincide with the first day of orientation activities, to be announced later. All students are expected to report immediately to their assigned residence halls when they arrive on campus.

**Furnishings.** All rooms in the University residence halls are provided with the necessary basic furniture. Occupants supply their own bedding, pillows, towels, lamps and floor coverings if desired. Coin-operated washers and dryers and ironing boards are also provided within each residence hall. Draperies are provided. Further information is available from the Housing Office.

University residence halls are staffed by full-time professional Residential Living Coordinators, undergraduate paraprofessional Assistant Coordinators, and Resident Assistants.

All students residing in University owned residence halls are financially responsible for damage to rooms and equipment. Residence Hall staff members report such damage to the Business Office and the student or the parent is billed for the cost of repair or replacement.

**Dining Facilities**

The University operates dining facilities in the Valparaiso Union and selected residence halls for the convenience of the students. Service is available during periods of scheduled classes. When service is not provided in a residence hall, students residing in such halls may participate at a neighboring dining facility.

All students living in residence halls other than sorority members living in Scheele Hall must buy into the a’la carte board plan at the set mandatory rate until they have completed six semesters of college attendance.

Transfer students living in residence halls will also be required to take part in the a’la carte board plan based on the number of semesters of attendance completed as a full-time student. Participation requirements are mandatory until the completion of six semesters of such attendance.

The mandatory rate for 1996-1997 is $675.00 per semester. Those dollars may be used to purchase food in any of the residence hall dining rooms, Union cafeteria (during designated hours) or campus grocery stores during the semester. All items for sale are individually priced.

Non-mandatory meal plan students, during the 1996-1997 academic year, may purchase an initial meal plan credit for a minimum of $205.00. Further purchases may be made in $25.00 increments.

When a meal plan account is reopened for spring semester, any unused a’la carte balance of $50.00 or less from fall will be automatically added to the required buy-in level. No remaining balances will be refunded or carried over at the end of spring semester. To supplement or reduce a food plan account, students can sell funds to or buy funds from other students already on the food plan. These transfers are handled by the meal Plan Office (located in the Union (lester’s). If a new account is not reopened for spring semester, the remaining balance from the fall semester will not be refunded or carried over.
Refunds

For those students who withdraw from all courses at Valparaiso University in a given semester, the refund of charges and of financial aid, if any, will be determined according to the following:

**NOTE:** Federal Title IV aid is defined as the Pell Grant, the Supplemental Educational Opportunity Grant, the Perkins Loan, the Federal Direct Stafford/Ford Loan (subsidized and unsubsidized), or the PLUS loan programs.

Two different formulas exist for determining the amount of the refund. They are as follows:

**The Federal Pro Rata Refund Policy.** This policy provides a refund if a student attending Valparaiso University for the first time is receiving Federal Title IV aid and withdraws on or before completing 60% of his/her first semester of enrollment. The percentage of the refund is equal to the number of weeks remaining in the semester divided by the number of weeks in the semester, rounded down to the nearest 10%.

**The Standard Refund Policy (Federal).** This refund policy applies to the student for whom the Federal Pro Rata Refund Policy does not apply. The standard Refund Policy (Federal) allows for a refund of tuition, fees, room and board if the student leaves school before completing 50% of the semester. The percentage of refund is 100% if the student leaves on or before the first day of classes; 90% if the student withdraws between the first day of class, but on or before 10% of the semester has been completed; 50% if the student withdraws after 10%, but on or before 25% of the semester has been completed; and 25% if the student withdraws after 25%, but on or before 50% of the semester has been completed. After 50% of the semester has been completed, there is no refund under this policy.

Examples of the application of the refund policy may be obtained at the Business Office.

Financial Aid

Valparaiso University is committed to providing resources necessary to help students complete their education. In selecting the students to receive this assistance, the University places primary emphasis on the student's academic achievement, character, future promise, and financial need. Financial aid consists of scholarships, grants, loans and campus employment, which may be offered to a student singly or in various combinations. The family of a student is expected to make a maximum effort to assist with college expenses.

**METHOD OF APPLICATION**

The following procedure should be followed by any student entering the University for the first time who wishes to apply for financial aid:

1. File an Application for Admission with the Office of Admissions. No student will be considered for assistance until the formal application has been approved.
2. Submit the Free Application for Federal Student Aid (FAFSA). The FAFSA requires no fee and can be secured from your high school guidance office or by writing to the Office of Financial Aid, Valparaiso University. **Indiana residents must file the Free Application for Federal Student Aid before March 1 to be eligible for Indiana awards.** Students who filed a FAFSA for the previous year may receive a Renewal Application for Federal Student Aid. This may be filed in lieu of the FAFSA. The filing of the FAFSA should be completed as soon after January 1 as possible. The Office of Financial Aid cannot guarantee full consideration for students whose FAFSA is filed later than March 1 of the spring before matriculation.
RENEWAL

All need-based financial assistance requires the annual filing of the Free Application for Federal Student Aid (FAFSA) or the Renewal Application. Renewal depends on continued need, the availability of funds, and satisfactory academic progress.

FINANCIAL AID PROGRAMS

Financial aid packages may include gift aid (grants and scholarships) and/or self-help loans (loans and employment).

Financial aid Eligibility. To be eligible for most financial assistance, undergraduate students must be enrolled full-time in a degree or certificate program with at least twelve credits per semester; maintain satisfactory academic progress; demonstrate financial need as determined by filing the FAFSA; be a U.S. citizen or an eligible noncitizen; not be in default on a federal loan or owe a refund or repayment on any federal or state program.

Graduate students also must meet the above requirements. However, they must be enrolled as half-time in a degree program with at least five credits per semester.

Original financial aid awards are based on the assumption that the recipient will be enrolled as a full-time student. Students who enroll for less than full time or who withdraw during a semester could have their financial aid award reduced or canceled. Enrollment status is determined at the beginning of each semester. For students who receive Federal Direct Loans, enrollment status is determined when the loan is disbursed.

SCHOLARSHIPS AND SPECIAL AWARD

Valparaiso University makes available new students a variety of scholarships and awards. Eligibility for all scholarships and grants is determined by the University committee whose decision is final. Scholarships and awards are offered in good faith by the University with the intent that they will be renewed under the conditions specified. The University does reserve the right to alter any scholarship or award should circumstances dictate. Since funds are limited, students must apply for admission by January 15 of the year preceding matriculation for priority consideration.

MERIT SCHOLARSHIPS

Founders Scholarships, Board of Directors Scholarships, Presidential Scholarships, University Scholarships, Honors Scholarships. High school seniors with outstanding scholastic achievement. Awarded according to financial need. Awards range in size from $2,000 to full tuition. Renewed if the annual grade point average at Valparaiso University is 3.0 or above. Awarded to eligible candidates who apply for admission by January 15.

SPECIAL AWARDS

These special awards require full-time undergraduate attendance and grade point requirements for renewal.

The following awards require a 3.00 cumulative grade point average for renewal:
- Awards for Excellence, $500 annual award, for outstanding Lutheran High School performance.
- Chemistry Scholarships, $1,000 annual award, selected by the Chemistry Department.
- Foreign Language Scholarships, $1,000 annual award, selected by the Foreign Language Department.
- Lutheran Leadership Awards, full tuition selected for outstanding leadership, one new student from the LCMS, and one from the ELCA.
- Lutheran Principal’s Christus Scholars, $2,000 annual award, selected in cooperation with Lutheran High School Principals.
- NASA/JOVE Physics Scholarships, $1,000 annual award, selected by the Physics Department.
-Phi Theta Kappa Awards, up to $3,000 annual award, to selected transfer students who are Phi Theta Kappa members.

The following awards require a 2.70 cumulative grade point average for renewal:
- Art Department Scholarships, $1,000 annual award, selected by the Art Department.
- Theatre and Television Arts Scholarships, $1,000 annual award, selected by the TTVA Department.

The following awards require a 2.00 cumulative grade point average for renewal:
- Alumni Heritage Awards, $250 annually, to children of Valparaiso University alumni.
- Deaconess Grants, $500 annually, to students selected by the Lutheran Deaconess Association.
- Diversity Awards, varying award amounts, to students of multicultural background who display exceptional promise.
- International Scholarships, varying award amounts, to selected international students.
- Lutheran High School Awards, $1,000 annual award, to students who graduate in the top 50% of their Lutheran High School graduating class.
- Martin Luther Awards, $4,000 annual award, to children of full-time Lutheran professional church workers.
- Music Grants, varying award amounts, selected by the Music Department based on auditions.
- Valparaiso University National Merit Awards, $750 annually award, to National Merit finalists in addition to other merit scholarships the student may be awarded.
- Prisms Scholarships, $1,000 annual award, to students who participated in the Prisms program in high school.
- Siblings Awards, $500 annual award, to each sibling. Each sibling must be full-time, undergraduate, and one sibling must have matriculated at VU in fall 1995 or later.
- Westside High School Award, full tuition, room, and board, to selected Gary West Side High School graduate.
- Athletic Grants, varying award amounts, selected by the Athletic Department and individual coaches.

CAMPUS EMPLOYMENT

Students are employed in a variety of positions on campus. Open positions are posted in the Financial Aid Office throughout the year. Students should contact the individual departments with job openings to apply for positions. Students with demonstrated financial need may work under the Federal Work Study Program (FWS). FWS students may also apply for off-campus jobs in the Community Service component of the program. Students may work on campus under the VU Work Study Program regardless of financial need.

NEED-BASED AID PROGRAMS: GRANTS

Valparaiso University Grants are institutional awards that are not repaid. All students who file the FAFSA and demonstrate need will be considered. Valparaiso University Grants generally make up the difference between calculated need, the self-help portion of the award, and other federal, state, and University assistance.

Federal Pell Grants are federal grants that are available to all students who have demonstrated financial need according to a federal formula. The FAFSA is required.

State Grants are for eligible Indiana residents and may be used at Valparaiso University. Non-Indiana residents should contact their state agencies for information and application procedures for any state grants for which they may be eligible. Indiana residents must file the FAFSA by March 1st. Awards are based on need, and are determined annually by state formula.

Federal Supplemental Educational Opportunity Grants (SEOG) are federal grants, awarded to Valparaiso University students with the greatest financial need. Amount of the awards depends on availability of funds.

NEED-BASED AID PROGRAMS: LOANS

Need-based student loans feature below-market interest rates, subsidized interest, and deferred payments. Repayment of these loans does not begin until six to nine months after graduation or after dropping below half-time status. Payments can be deferred for attending graduate school or for a variety of special circumstances. Repayment usually extend over a period of ten years although extended terms and income-contingent plans are also offered. There is no penalty in student loan programs for prepaying interest and principal. Many Valparaiso University students receive loans as part of their financial aid packages.

In addition to the loans listed above, there are other private lenders who specialize in educational loans that are not based upon financial need. Contact the Office of Financial Aid for further information. The following need-based educational loans are available through Valparaiso University.
Federal Perkins Loans. Students enrolled full-time who have exceptional need. Monies come from the federal government and are administered by Valparaiso University. The interest rate is 5% and repayment begins nine (9) months after the student completes enrolment. Entrance and exit counseling required. Complete and submit the FAFSA before March 1st.

Federal Direct Student Loans. Students enrolled at least half-time who demonstrate financial need. Monies come from the federal government. The federal government pays interest while the borrower is in school. Repayment begins six (6) months after the borrower is no longer enrolled in college at least half-time. Entrance and exit counseling is required. A variable interest rate adjusts every July 1, capped at 8.25% for new borrowers. Previous borrowers keep the same rate. The loan limits are up to the cost of education, less other aid, per student. Repayment of the principle and interest begins 60 days after disbursement of funds. Contact the Office of Financial Aid to apply.

Loan Repayment Information. Sensible borrowing can not only help pay for college but also help establish a good credit history. Similarly, not making regular payments can result in a poor credit rating or even default status on student loans. To estimate future repayment obligations for student loans, use the factors listed below, multiplied by each $1,000 in debt, to estimate a ten year repayment amount. For example, the estimated monthly payment on $20,000 in Direct Loans at 8% interest would be $12.13 X 20 or $242.60. These results are estimates only; many programs have minimum monthly payments, and the Perkins program is usually repaid in quarterly installments. In addition, extended repayment plans and income-contingent plans are available.

Factors: 5% interest, 10.61
7% interest, 11.61
8% interest, 12.13
9% interest, 12.67

Veterans Programs. Contact the Veteran's Administration about programs for veterans and dependents.

Valparaiso University Loans. Limited, low interest loans are administered by Valparaiso University. The amounts vary. Students must be enrolled full-time at Valparaiso University. Contact the Office of Financial Aid for details.

Academic Management Services, Inc. This service offers an insured monthly payment plan. A $50 annual participation fee is charged to participants. Contact Academic management Services, Inc., 80 Vision Blvd., East Providence, RI 02914 (Telephone: 800-635-0120 or 410-431-1290).

Vocational Rehabilitation. Under the provision of Public Law 565, the federal government and the State of Indiana jointly provide funds for scholarship grants-in-aid to students who have a physical or mental impairment which constitutes a vocational handicap. The State Vocational Rehabilitation Division is responsible for the determination of the grants.

PAYMENT OF FINANCIAL AID
Most aid is divided and credited to student accounts in equal amounts for each semester. Most aid is ready to disburse at the beginning of each semester, although the actual date that funds are disbursed varies. Aid is credited regularly throughout the semester.

If a student's financial aid exceeds the University charges for the semester, he or she may, on request, receive a refund check from Student Accounts. It is each student's responsibility to verify semester charges, financial aid credits, and refund check amounts for accuracy.

Students receive work-study awards as a paycheck every two weeks for hours worked in the previous pay period, not as a credit on their student account.

Financial aid for students who withdraw from Valparaiso University will be adjusted based on refund policy. Specific information may be found in the Refund Policy section of this catalog.

SPECIAL STUDENTS
Certain restrictions apply to financial aid for students who are considered to have "special" status. These are students in certification programs such as teacher/diakonal certification programs or students who have earned a bachelor's degree and return to school to enroll in undergraduate courses necessary as prerequisites to specific graduate programs. In any case, the student is eligible only for Federal (Unsubsidized or Subsidized) Direct and PLUS loans or employment. It is advised that students with "special student" status meet with a financial aid counselor for detailed information.

EXIT INTERVIEWS
Prior to graduation, leaves of absence, or withdrawal from the University, students who have accepted loans must participate in separate interviews for Federal Direct Loans and Perkins Loans.

APPEAL PROCEDURE
A review of any decision concerning a financial aid package may be requested. First, contact the Office of Financial Aid. If the outcome of the initial review is unsatisfactory, then a case review by the Financial Aid Appeals Committee may be requested. If the decision of the Financial Aid Appeals Committee is unsatisfactory, then an appeal may be presented to the Vice President for Admissions and Financial Aid. The decision of the Vice President is final.

FINANCIAL AID REFUND POLICY
If a student is due a refund under the Valparaiso University refund policy, and the student has received any financial aid other than Federal Work-Study, part of the refund must be returned to the sponsoring aid programs. The amount of refund is determined in accordance with the University refund policy listed in the catalog (page 21b). Policies for returning a portion of that refund to sponsoring aid programs are as follows.

Valparaiso University Grants and Scholarships. The student's account will be credited with a prorated grant/scholarship. The percentage used in proration will be the same as the percentage of revised student account liability.

Privately Funded Grants and Scholarships. Some students will be recipients of funds from private donors such as churches, civic groups, foundations, etc. Many of these organizations will provide specific instructions concerning disbursement of their funds to students who withdraw. In the absence of specific instructions from the donor, 100 percent of the semester award will be credited to the student's account. Funds on deposit with the University that the donor designated for future terms of enrollment within the academic year will be returned to the donor.

Title IV Programs (Federal). By law, a percentage of the student's refund must be returned to the Title IV programs. Details will be found on the distribution of federal refunds, contact the Office of Financial Aid.

State Scholarships. Refunding proration is done according to specific regulations of the sponsoring state.

STANDARDS OF SATISFACTORY ACADEMIC PROGRESS
Financial aid recipients must maintain minimum standards of satisfactory academic progress for receipt of federal, state, and most Valparaiso University aid programs. All students receiving financial assistance must maintain matriculated status in a degree program. Regulations require a maximum...
time frame for degree completion, a quantitative measurement (credits earned toward a degree), and a qualitative measurement (cumulative grade point average). The maximum time frame for degree completion is 150% of the number of hours required for completion of the degree. Students who have attempted more than 150% of the required number of hours will no longer be eligible for financial assistance.

Grade point averages are reviewed at the end of each academic year. Minimum cumulative grade point average standards at Valparaiso University are as follows:

<table>
<thead>
<tr>
<th>Completion of</th>
<th>Minimum Cumulative GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>First academic year</td>
<td>1.50 gpa</td>
</tr>
<tr>
<td>Second academic year</td>
<td>2.00 gpa</td>
</tr>
<tr>
<td>Third academic year</td>
<td>2.00 gpa</td>
</tr>
</tbody>
</table>

Credits earned toward the degree are evaluated at the end of every academic year. Full-time aid recipients are expected to complete twenty (20) degree credits every two academic semesters as detailed below:

<table>
<thead>
<tr>
<th>Completion of</th>
<th>Degree Credits Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>First academic year (2 semesters)</td>
<td>20 Cr.</td>
</tr>
<tr>
<td>Second academic year (4 semesters)</td>
<td>40 Cr.</td>
</tr>
<tr>
<td>Third academic year (6 semesters)</td>
<td>60 Cr.</td>
</tr>
<tr>
<td>Fourth academic year (8 semesters)</td>
<td>80 Cr.</td>
</tr>
<tr>
<td>Fifth academic year (10 semesters)</td>
<td>100 Cr.</td>
</tr>
<tr>
<td>Sixth academic year (12 semesters)</td>
<td>120 Cr.</td>
</tr>
</tbody>
</table>

ADDITIONAL REQUIREMENTS

Transfer Students. Cumulative grade point average requirements are the same as for non-transfer students (i.e., students must obtain a 2.00 cumulative grade point average at the end of two academic years - four semesters). Full-time transfer students are also expected to accumulate 20 degree credits for each two semesters, and are subject to the 150% time frame requirement, including Valparaiso University credits and credits transferred from other schools.

Part-Time Students. Students registering for 6 to 11.5 credit hours per semester and receiving financial assistance must meet the same grade point average requirements as full-time students (i.e., attainment of a 2.00 cumulative grade point average after 4 academic semesters). Part-time students must complete at least two-thirds of their attempted credits each year, and are subject to the 150% maximum time frame requirement. Eligibility to receive certain forms of federal assistance may expire in less than the 150% maximum time frame.

In addition to annual limits, both the Perkins Loan and Direct Loan also have cumulative undergraduate limits of $15,000 (Perkins) and $23,000 (Direct). State scholarships and institutional programs may vary somewhat from these standards. Most state and Valparaiso University assistance is limited to eight semesters.

Notification and Appeal. Students whose academic progress is not in compliance with this policy will be notified in writing and advised of the appeal process. Students who are not in compliance with the standards will not be eligible for aid unless an appeal is approved, or they later attain the standards without receiving financial aid.

STUDENT FINANCIAL AID RESPONSIBILITIES

Students have the following responsibilities regarding financial aid assistance:

1. To pay special attention to their application for financial aid, complete it accurately, and submit it on time to the proper place.
2. To know and meet all deadlines for applying or reapplying for aid.
3. To provide all documentation, corrections, and new information requested by the Office of Financial Aid or the agency to which the application is submitted.
4. To notify the institution of any information that has changed since first applying for financial aid.
5. To read, understand, and keep copies of all forms that they are asked to sign.
6. To repay student loans on a timely basis and keep the university informed of current address.
7. To attend any necessary interview sessions related to the loan.
8. To be aware of all published financial aid policies, understand them, and comply with these policies.

STUDENT FINANCIAL AID RIGHTS

1. To know what financial assistance is available, including information on all federal, state, and institutional financial aid programs.
2. To know the procedures and deadlines for submitting applications for each available financial aid program.
3. To know how the institution selects aid recipients.
4. To know how and when payments will be made and to know the refund policy for students who withdraw.
5. To request a review of the financial aid package should there be changes in family's ability to meet costs of attendance.
6. To know how the institution determines whether the student is making satisfactory progress and what happens if he or she is not.
7. To be fully informed of the terms and provisions of loan payments, including typical repayment schedules.
8. To appeal any decisions relating to the determination of financial aid eligibility.

Scholarships

APPLICATION REQUIRED

Students should contact the Office of Admissions and Financial Aid for further information about the following scholarships:

- **Aid Association for Lutherans Scholarships.** All College and Lutheran Campus Scholarships.
- **Alumni Board Endowed Scholarship (PACT).** Established by members of the 1985 Valparaiso Alumni Board. Designated for sons or daughters of alumni(ie). Financial need not a criterion.
- **Ament-Brenner Endowed Scholarships in Nursing.** Preference to undergraduate students in Lutheran congregations in the greater St. Louis area studying nursing, preparing for admission to medical schools, or preparing for any profession that provides direct health care services (physical therapy, occupational therapy, etc.). Preference to students belonging to congregations affiliated with the Lutheran Charities Association and secondly with The Lutheran Church-Missouri Synod. Scholastic ability and financial need will be major criteria.
- **Dow Chemical Undergraduate Scholarship.** Available to outstanding high school students planning to attend a U.S. college or university.
- **Ed. L. Voelz Endowed Scholarship.** Preference to a student who is a resident of Bartholomew County, Indiana, and a graduate of St. Peter's Lutheran School.
- **Jud Memorial Endowed Guild Scholarship.** Fond of memorials to members of the Jud family, now known as the Guild. Preference to candidates who intend to pursue a career in medicine, nursing, occupational therapy, music, art, etc. Preference to students from Lutheran congregations in the greater St. Louis area.
- **Jud Memorial Endowed Guild Scholarship.** Preference to a student who is a resident of Bartholomew County, Indiana, and a graduate of St. Peter's Lutheran School.
- **James S. Kemper Foundation Scholarship.** To be awarded to one freshman each year. Candidates must have substantial academic potential and ability, and the maturity, perspective and motivation to undertake summer work experience in a rigorous business environment each of their undergraduate summers.
- **Lutheran Brotherhood.** Junior and senior college scholarships for Lutheran students and Lutheran Brotherhood Members' scholarships.
- **The Donna Spanopoulos Memorial Scholarship.** Annual award. Preference to senior students enrolled in the College of Nursing at Valparaiso University, who express an interest in specializing in pediatric care and have demonstrated clinical and academic ability. Financial need not a criterion.
- **Valparaiso University Guild (Cookbook) Endowed Scholarship.** Two new scholarships awarded annually to freshmen students with financial need and with academic ability. The $2,000 scholarships may be renewed if the recipients maintain a 3.00 or better grade point average. The scholarship recipients shall be sons or daughters of Guild members. Application must be made for this scholarship. Application forms are available from the Office of Admissions or the Guild Office.
- **Valparaiso University Guild Past National Officers Endowed Scholarship.** Two new scholarships awarded annually to freshmen students with financial need and with academic ability. The $2,000 scholarships may be renewed if the recipients maintain a 3.00 or better grade point average. The scholarship recipients shall be sons or daughters of Guild members. Application must be made for this scholarship. Application forms are available from the Office of Admissions or the Guild Office.
not make a separate application or request to be considered for these awards.

Note: The amount and number of awards given in endowed scholarships varies depending on the earnings of the established fund.

- Anna B. Althans Scholarship.
- Amoco Foundation, Inc. Scholarship.
- John V. Anderson Scholarship.
- Reverend Theodore and Vera Andres Memorial Endowed Scholarship.
- Robert Augustine Memorial Endowed Scholarship.
- Eric Lee Bandick Endowed Scholarship.
- Bank Memorial Endowed Scholarship.
- Mr. and Mrs. Harry B. Barr Endowed Scholarship.
- Herbert C. Bartelt Endowed Scholarship.
- Otto and Gertrude Bartelt Endowed Scholarship (PACT).
- Carl H. Barz Memorial Endowed Scholarship.
- Elmyra and Elise Bauer Endowed Scholarship.
- The Almea M. L. Becker Memorial Endowed Scholarship.
- Dr. and Mrs. Henry Frederick Beckman Endowed Scholarship.
- Victor H. Bergmann Endowed Scholarship.
- Charlotte Bens Scholarship.
- Wilfred and Olga Berntshal Scholarship.
- Bethel Lutheran Church of University City, Missouri, Endowed Scholarship (PACT).
- Inez C. and W. H. Bischel Scholarship.
- W. H. Bischel Scholarship.
- Charles H. and Elizabeth Blume Endowed Scholarship.
- William F. and Martha Boeger Memorial Scholarship.
- Mrs. Amelia Bokerman Endowed Scholarship.
- John V. Borgedtting Endowed Scholarship.
- Mr. and Mrs. Stanley E. Bowman Endowed Scholarship.
- Otis R. and Elizabeth Bowen Endowed Scholarship.
- Otis R. and Elizabeth Bowen Endowed Board of Directors Scholarship.
- Professor John Bowman Endowed Scholarship.
- Daniel M. Brandt Endowed Scholarship.
- Martin W. Brandt, Ph.D., Memorial Endowed Scholarship.
- Paul and Cleo Brandt Endowed Scholarship.
- Carl and Isabelle Brauer Endowed Scholarship.
- A. John & Ruth J. Briel Endowed Scholarship.
- Ruth Brown Memorial Endowed Scholarship (PACT).
- Julius C. Bruenecher Endowed Scholarship.
- William G. Buchinger Endowed Scholarship.
- Luella R. and Herbert P. Buetow Endowed Scholarship.
- Mrs. Ella M. Burkart Endowed Music Scholarship.
- Selma Deekle Busse Endowed Music Scholarship.
- Jose Calderon Memorial Scholarship.
- Kermit H. Carlson Endowed Scholarship (PACT).
- Dr. Eugene J. Chesrow Memorial Endowed Scholarship.
- John E. Cristen Memorial Endowed Scholarship.
- Emma E. Christ College Scholarship.
- Emma E. Claus Law Scholarship.
- Concordia, Wilmington, Delaware, Endowed Scholarship (PACT).
- Concordia Lutheran Church, Kirkwood, Missouri, Endowed Scholarship (PACT).
- Robert F. Connel Memorial Scholarship.
- Delma Covert Memoral Endowed Scholarship.
- Kenneth Bayard Copeland and Todd Cushman.
- Copeland Family Memorial Endowed Scholarship.
- Eugene Crawford Memorial Endowed Scholarship (PACT).
- Chwee Chikaz Company Scholarship.
- Czapske Family Endowed Scholarship.
- Sister M. Hugoline Czapinski Scholarship.
- Arthur Vining Davis Endowed Scholarship.
- Edwin F. Deike Endowed Scholarship.
- Tom and Violet Delassus Scholarship.
- Delta Upsilon Chapter of Eta Sigma Phi Scholarship.
- Deubener-Juennenman Foundation Scholarship.
- John L. DeVoss Memorial Scholarship.
- Donna and Lonnie Dods Endowed Memorial Scholarship.
- Sophie Doern Endowed Scholarship.
- Donald W. Dopp Memorial Endowed Scholarship.
- Wilbur C. Dopp Memorial Endowed Scholarship.
- Wilbur H. and Marguerite M. Doslad Endowed Scholarship.
- Hugo and Edna Duesenberg Endowed Scholarship.
- Richard W. and Phyllis (Buehner) Duesenberg Endowed Scholarship.
- Rupert and Ruth Dunkula Endowed Scholarship.
- Linda Ann Eastmond (Bauer) Memorial Endowed Scholarship (PACT).
- Charles and Ruth Ebenreiter Family Endowed Scholarship (PACT).
- Reverend Ernest H. Eggers Memorial Endowed Scholarship.
- Reverend and Mrs. P. J. (Myrtle E) Eickstedt Endowed Scholarship.
- E. Stanley and Calista Erland Endowed Scholarship.
- Twila Fabrizius Memorial Endowed Scholarship.
- Faith Lutheran Church, Lake Forest, Illinois, Endowed Scholarship (PACT).
- Fedder Scholarship.
- Robert Elmore Finding Memorial Scholarship.
- Helen Finnhaber Memorial Endowed Scholarship (PACT).
- First National Bank of Valparaiso Scholarship.
- Carl Christian Fleischer Memorial Endowed Scholarship.
- Henry W. Flemming Endowed Scholarship.
- Esther H. and Elmer E. Foelber Memorial Endowed Music Scholarship (PACT).
- Herbert J. and Marie Foelber Endowed Scholarship.
- Edith Schuchardt Forsberg Family Memorial Endowed Scholarship.
- Dr. Louis Foster Scholarship.
- Arthur Franke Memorial Endowed Scholarship.
- Paul and Emilie Freitag Endowed Scholarship.
- Paul W.D., Jr. and Alita H. Freitag Endowed Scholarship.
- Leslie F. and Katherine D. Freking Endowed Scholarship.
- Carl R. Fruenling Endowed Scholarship.
- William A. Fuzy Family Endowed Scholarship.
- Daniel and Thomas Gahl Endowed Scholarship (PACT).
- Dr. Ernest G. Galmeyer Memorial Endowed Scholarship.
- Dr. and Mrs. E. C. Galsterer Endowed Scholarship.
- Gamma Phi Anniversary (PACT).
- William C. Gast Memorial Endowed Scholarship.
- Harold C. Gearing Endowed Scholarship.
- Martin and Dorothy Goeglein Memorial Donated Scholarship.
- Dorothy Guoty Memorial Endowed Scholarship.
- Grace Lutheran Church, Winter Haven, Florida, Endowed Scholarship (PACT).
- Grace Lutheran Church, River Forest, Illinois, Endowed Scholarship (PACT).
- Grace Lutheran Church, Tulsa, Oklahoma, Endowed Scholarship (PACT).
- Erwin and Helen Gratter Endowed Scholarship (PACT).
- Erwin and Helen Gratter Endowed Scholarship (PACT) IV and V.
- Earl K. Guoty Memorial Endowed Scholarship.
- Professor Charles R. Gromley Endowed Scholarship.
- Leona M. Groth Memorial Endowed Scholarship.
- Henry C. and Ura E. Guhl Endowed Scholarship.
- Charles Halloch Endowed Scholarship.
- Arthur E. Hallberg Memorial Endowed Scholarship (PACT).
- Elsa and Lloyd Halverson Endowed Scholarship.
- Clarence and Elsie Hansen Endowed Scholarship.
- Rev. Dr. Oliver R. and Bertha Harts Endowed Scholarship.
- Dr. Oliver R. and Bertha Harts Endowed Board of Directors Scholarship.
- Edward W. Hartman Memorial Endowed Scholarship.
- Rev. Harlan Hartner Endowed Scholarship.
- Lilly Hayden Memorial Endowed Scholarship.
- William Randolph Hearst Endowed Scholarship.
- Walther T.F., and Laura M. Heinicke Endowed Scholarship.
- Edward H. Heine Memorial Scholarship.
- John and Dorothea Heine Memorial Endowed Scholarship.
- Dr. Karl H. Henschen Endowed Scholarship.
- Karl H. and Luetta M. Hennichs Endowed Scholarship.
- John and Rosa Herscher Endowed Scholarship.
- Herman C. Hesse Endowed Scholarship.
- Mr. and Mrs. Peter Hessler Endowed Scholarship.
- William and Vera Heyne Endowed Bach Scholarship (PACT).
- Charles H. Hickman Memorial Endowed Scholarship.
- Dee Hildebrandt Memorial Endowed Scholarship (PACT).
- Mary Hilgemeier Endowed Scholarship.
- Dan Hilgendorf Memorial Endowed Scholarship.
- Rose L. Hilt Memorial Endowed Scholarship.
- Helen F. Hiltpold Endowed Scholarship.
- Hoepner, Wagner and Evans Scholarship.
- Richard J. Hoeger Endowed Scholarship.
Financial Aid, Scholarships, Loan Funds

- Helen Langer Memorial Scholarship.
- Edward and Margaret Larson Endowed Scholarship.
- Tommy Lasorda Endowed Scholarship.
- Richard H. Laube Memorial Endowed Scholarship (PACT).
- School of Law Board of Visitors Donated Scholarship.
- Blase Lazarra Memorial Endowed Scholarship Fund.
- Dr. and Mrs. H. A. Leininger Endowed Scholarship.
- George and Florelta Letz, Sr. Endowed Scholarship.
- Ernest and Clara M. Lichtfuss Endowed Scholarship.
- John A. Liechti Endowed Scholarship.
- Nancy Lieneck Memorial Endowed Scholarship.
- David L. Litterer Endowed Scholarship.
- Scott C. Lohr Endowed Scholarship.
- Mr. and Mrs. Orval M. Lohse Endowed Scholarship.
- Lynette and Norman Luakens Endowed Scholarship.
- Lutheran Brotherhood Endowed Scholarship.
- Lutheran Deaconess Endowed Scholarships (PACT).
- Esther and Karl Lutze Minority Endowed Scholarship (PACT).
- Walter A. MacNary Endowed Memorial Scholarship.
- Orval L. and Maud L. Main Memorial Endowed Scholarship.
- Dr. and Mrs. Max K. Mallon Endowed Scholarship.
- Dan and Louise Manika Endowed Chemistry Scholarship.
- Manning/Spannagel Memorial Endowed Scholarship.
- Albert A. and Martha Marks Endowed Education Scholarship (PACT).
- Marowske Endowed Scholarship.
- Dr. and Mrs. E. W. Marquardt Endowed Scholarship.
- G. H. Maskus Endowed Scholarship.
- Russell H. Matthias Endowed Scholarship.
- Irene Mayer Endowed Scholarship.
- Katherine McCallum Endowed Scholarship.
- James H. McGill Memorial Scholarship.
- Kelly Anne McGill Memorial Endowed Scholarship.
- J. Ron & Joanne McLeod Endowed Scholarship.
- Vera M. McLeod Memorial Endowed Scholarship.
- Mr. and Mrs. A. A. Meitz Endowed Scholarship.
- Ernest A. Menzel Endowed Scholarship.
- Memorial Endowed Scholarship.
- Mr. and Mrs. Dirk Meyer Endowed Scholarship.
- Gerhard F. Meyne Endowed Scholarship.
- Michigan Student Donated Scholarship.
- Michigan Student Endowed Scholarship.
- Bertha Miller Memorial Scholarship.
- Helen Miller Endowed Scholarship.
- Minnesota Merit Award.
- Dean H. Mitchell Endowed Scholarship.
- Maria Moehring Endowed Nursing Scholarship.
- Henry F. Moellerling Endowed Scholarship.
- Mr. and Mrs. Henry J. Moellerling Endowed Music Scholarship.
- Dr. and Mrs. Robert C. Moellerling, Sr. Endowed Scholarship.
- Dr. Charles and Florence Monte Endowed Scholarship.
- R. Stuart and Margaret Moore Memorial Endowed Scholarship.
- Morrison Foundation Endowed Scholarship.
- Clara Mueller Endowed Scholarship.
- Ewald H. Mueller Scholarship.
- Gail (née Hendrickson) and Robert Muir Endowed Scholarship (PACT).
- Martin David Munds Memorial Endowed Scholarship (PACT).
- An Endowed Music Scholarship (PACT).
- George L. and Mary S. Myers Endowed Scholarship.
- Max G. and Judith E. Nagel Scholarship.
- Mr. and Mrs. Martin J. Nahring Endowed Scholarship.
- Faye Newton Memorial Endowed Scholarship (PACT).
- Niessick Family Scholarship.
- Marilyn Niequist Memorial Endowed Scholarship.
- Nicholas H. and Marguerite Lilly Noves Endowed Scholarship Fund.
- Nuechterlein Endowed Scholarship (PACT).
- Carl and Arnold C. Nuechterlein Endowed Scholarship.
- Joel S. Oberman Endowed Basketball Scholarship.
- Oberst Family Endowed Scholarship.
- Arnold Oestmann Endowed Scholarship.
- Ohio Annual Endowed Scholarship.
- Rev. Armin and Evelyn Oldsen Endowed Scholarship.
- George S. Olive and Company Outstanding Achievement in Accounting Award at Valparaiso University.
- George S. Olive and Company Donated Scholarship.
- Helen Mae Olson Memorial Endowed Scholarship.
- Walter E. Olson Memorial Scholarship.
- Orting Family Endowed Scholarship (PACT).
- Dr. Richard Oster Scholarship.
- Thomas Otten and Joyce Otten Memorial Endowed Scholarship (PACT).
- Our Savor Lutheran Church Congregation of Raleigh, North Carolina, Endowed Scholarship (PACT).
- Pacific Hills Lutheran Church, Omaha, Nebraska, Endowed Scholarship (PACT).
- Mollie V. Page Endowed Scholarship.
- Pauling Music Endowed Scholarship (PACT).
- Professor Charles G. Peller and His Son, John Van Alstyne Peller, Memorial Endowed Scholarship.
- Peters Family West Michigan Endowed Scholarship.
- Gilbert A. Peters Endowed Scholarship.
- Arthur F. Peterson Endowed Scholarship.
- Ella Pfeifer Endowed Scholarship.
- Margaret A. Pfeifer Endowed Scholarship.
- Irma Pflueger Memorial Endowed Lutheran Deaconess Scholarship (PACT).
- Phi Delta Theta Class of '84 Endowed Scholarship (PACT).
- Phi Mu Alpha Endowed Scholarship (PACT).
- Brenda Phillips Memorial Scholarship.
- Paul F. Philippin Merit in English Endowed Scholarship (PACT).
- Hattie Lowe Pierce Endowed Scholarship.
- Pilgrim Evangelical Lutheran Church of Detroit Memorial Endowed Scholarship.
- Arthur H. Poepp Memorial Endowed Scholarship.
- Arthur E. Pohiman Endowed Scholarship.
- Pohiman Family Endowed Scholarship.
- The Rodney B. Poppe Endowed Scholarship.
- Porter County Cancer Society Endowed Scholarship.
- Porter County Doctors' Scholarship.
- Professor Henry W. and Laura M. Prah Endowed Scholarship.
- Mrs. Hazel Prebesh Memorial Endowed Scholarship.
- Presidential Endowed Scholarship for Minnesota (PACT).
- Vernon F. and Katherine H. Radde Endowed Scholarship.
- Herman R. Rahn Memorial Scholarship.
- Emma and William Rakowsky Memorial Endowed Scholarship.
- Elizabeth Randt Endowed Scholarship.
- Redeker Lutheran Church, South Bend, Indiana, Endowed Scholarship (PACT).
- Rev. and Mrs. Arthur L. Reine and the Rev. and Mrs. Augustus Reineke Memorial Endowed Scholarship.
- Reutlingen Semester Scholarship.
- Richardson Twin Scholarship.
- Alton F. Riehmeyer Memorial Endowed Alumni Scholarship (PACT).
- Mr. and Mrs. Carl Ritterberger Scholarship.
- Sohre Family Roberts Endowed Nursing Scholarship (PACT).
- Walter and Dorothy Rogneshieke Scholarship (PACT).
- Cora H. Rosin Memorial Endowed Scholarship.
- Waldemar M. Roth Memorial Endowed Scholarship.
- Leona Runzli and Elise Skuse Memorial Endowed Scholarship.
- Walter C. and Gudrun M. Rubke Endowed Scholarship.
- Adele Ruettgers Endowed Scholarship.
- Noah B. Ruff Memorial Endowed Scholarship.
- August and Helene Ruhe Endowed Scholarship.
- Bernice Lillie Ruprecht Endowed Scholarship (PACT).
- Freeman and Frances Russell Endowed Scholarship (PACT).
- Climen Zahn Endowed Scholarship.
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- Pohiman Family Endowed Scholarship.
- The Rodney B. Poppe Endowed Scholarship.
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- Porter County Doctors' Scholarship.
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- Herman R. Rahn Memorial Scholarship.
- Emma and William Rakowsky Memorial Endowed Scholarship.
- Elizabeth Randt Endowed Scholarship.
- Redeker Lutheran Church, South Bend, Indiana, Endowed Scholarship (PACT).
- Rev. and Mrs. Arthur L. Reine and the Rev. and Mrs. Augustus Reineke Memorial Endowed Scholarship.
- Reutlingen Semester Scholarship.
- Richardson Twin Scholarship.
- Alton F. Riehmeyer Memorial Endowed Alumni Scholarship (PACT).
- Mr. and Mrs. Carl Ritterberger Scholarship.
- Sohre Family Roberts Endowed Nursing Scholarship (PACT).
- Walter and Dorothy Rogneshieke Scholarship (PACT).
- Cora H. Rosin Memorial Endowed Scholarship.
- Waldemar M. Roth Memorial Endowed Scholarship.
- Leona Runzli and Elise Skuse Memorial Endowed Scholarship.
- Walter C. and Gudrun M. Rubke Endowed Scholarship.
- Adele Ruettgers Endowed Scholarship.
- Noah B. Ruff Memorial Endowed Scholarship.
- August and Helene Ruhe Endowed Scholarship.
- Bernice Lillie Ruprecht Endowed Scholarship (PACT).
- Freeman and Frances Russell Endowed Scholarship (PACT).
- Climen Zahn Endowed Scholarship.
- George S. Olive and Company Outstanding Achievement in Accounting Award at Valparaiso University.
Loan Funds

- **Federal Perkins Program.** Valparaiso University participates in the Federal Perkins Loan Program, and has established a fund consisting of contributions from the government and the University. Details may be obtained from the Office of Student Financial Aid.

- **American Bar Association Fund for Legal Education.** Provides a yearly allotment of funds to be used by students of the School of Law of Valparaiso University. Information pertaining to qualifications for this fund may be obtained from the Dean of the School of Law.

- **Donna Francesca-Cesario Chesrow Loan Fund.** Established for the purpose of making small, short-term loans.

- **The Garland Loan Fund.** Loans for students majoring in the sciences, mathematics, or home economics. These will be non-interest bearing loans.

- **Garman Loan Fund.** A loan fund has been established by Benjamin L. Garman to help students who cannot qualify for a scholarship but who must have financial assistance or those with scholarships who need more help. Details may be obtained from the Office of Student Financial Aid.

- **Edmund C. Laue Student Loan Fund.** The families of Charles E. Laue and Walter R. Rahn have established this fund to provide loans to students with a grade point average of 3.00 or better, enrolled in restricted academic fields of study. Preference to Lutheran students. Details may be obtained from the Office of Student Financial Aid.

- **Alvinia Louise Marker Loan Fund.** This fund was established for the purpose of making loans to students making satisfactory progress toward a degree.

- **Phi Alpha Delta Law Fraternity Endowment Fund.** Loans from this fund are available to worthy student members of the fraternity who are in need of such loans to complete their law school education. The maximum amount of such loans is $500. Terms of the loans, which are prescribed by the national governing board of the fraternity, may be obtained from the Dean of the School of Law.

- **The Herman R. Rahn Memorial Loan Fund.** This fund has been established to provide loan funds to students with a grade point average of 3.00 or better, enrolled in restricted academic fields of study. Preference to Lutheran students, particularly members of St. Peter's Lutheran Church, Arlington Heights, Illinois. Details may be obtained from the Office of Student Financial Aid.

- **Fred Smoke Student Loan Fund.** Administered by the Valparaiso University Alumni Association, this fund was established in January, 1969 to provide funds for loans to students who are residents of Porter County, Indiana. Details may be obtained from the Office of Student Financial Aid.

- **Valparaiso University Law School Alumni Student Assistance Trust.** Loans available to law students through this trust are awarded by the officers of the trust. Information may be obtained from the Dean of the School of Law.

- **Nellie Winifred Cheney Overton Memorial Loan Fund.** This fund was established by Mr. William J. Overton as a memorial to Mrs. Overton. The income from the fund is available for loans to students from Lake County, Indiana.

- **Indiana Federation of Clubs Loan Fund (Lucy D. Putnam Loan Fund and Porter County Federation of Women's Clubs Loan Fund).**

- **Mr. and Mrs. August Schoenherr Memorial Loan Fund.** Established by Mr. and Mrs. Leonard Schoenherr of Ludington, Michigan, as a memorial to his parents.

- **Henry Strong Educational Foundation.** Provides loans to qualified upperclassmen under twenty-five years of age.

- **Mr. and Mrs. Glen Tabor Lawyers Loan Fund.** This fund was established for making loans to students in the School of Law.

- **Mr. and Mrs. Glen Tabor Nursing Loan Fund.** This was established for making loans to students in the College of Nursing.

- **Valparaiso University Association Loan Fund.** A University Loan Fund has been established to help students who cannot qualify for a scholarship but who must have financial assistance or those with scholarships who need more help. Details may be obtained from the Office of Student Financial Aid. In addition to funds provided by special appropriation of the Board of Directors, friends of the University who strongly believe in the principle of lending their resources to students in need have contributed to the University Loan Fund. These contributors are: M.

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**Financial Aid, Scholarships, Loan Funds**

- **E. Dinsmore Memorial, Frank B. Estell, Oscar Homann, Glenn Krabec, Aaron H. Kousa, The Lutheran Ladies Seminary, Anna and Bertha Meyer, Robert Miller Laboratory, Albert and Anna Raether Memorial, Mr. and Mrs. Henry J. Schneider, Mr. Werner Schroeder, Carl and Susan Thompisen, Trinity Tool Company.**

- **Janette G. Wesemann Student Loan Fund.** Established for the purpose of making loans primarily to qualified pre-law and law students, preferably from the State of Illinois, who are in need of financial assistance to continue their education. Loans from this fund are available to students who are making satisfactory progress toward a degree.

- **Betty Rose Wulf Memorial Loan Fund.** Established by her parents, Mr. and Mrs. Walter H. Wulf, to be used by students preparing for church work, such as deaconess training.

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**LOAN REPAYMENT TERMS**

Each of the loan programs contain specific repayment terms and conditions which are a part of the promissory note the student signs upon receipt of the loan fund. Students are responsible for being aware of the various loan provisions and thus should review the terms of the repayment obligation prior to accepting funds under these loan programs.
**UNIVERSITY PERSONNEL**

### Full-Time Faculty 1995-1996

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Department</th>
<th>Institution</th>
<th>Year(s)</th>
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</thead>
<tbody>
<tr>
<td>James William Albers, Ph.D.</td>
<td>1961-1964</td>
<td>Philosophy; History</td>
<td>St. Olaf College</td>
<td>1959</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Tulane University</td>
<td>1962; Ph.D.</td>
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<td></td>
<td>University of Notre Dame and Computer Science</td>
<td>1967</td>
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<td></td>
<td>University of Chicago</td>
<td>1967</td>
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<tr>
<td>Bruce Gilbert Berner, LL.M.</td>
<td>1995-1996</td>
<td>Law</td>
<td>Valparaiso University</td>
<td>1969</td>
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<td></td>
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<td>Yale University</td>
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<td>Eastern School of Music</td>
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<td>University of Rochester</td>
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<td>University of Chicago</td>
<td>1986</td>
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<tr>
<td>Pamela Louise Buxton Blake, R.N., M.S.N.</td>
<td>1986-1987</td>
<td>Nursing</td>
<td>Nursing College</td>
<td>1986</td>
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<td>University of Pennsylvania</td>
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<td>University of Derby</td>
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<td>University of Chicago</td>
<td>1994</td>
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</tbody>
</table>

### President Harre

President Harre

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### On Sabbatical Leave

- On Sabbatical Leave, Spring Semester
- On leave of absence, Spring Semester
Steven Carl Engerer, Ph.D., Assistant Professor of Chemistry; Michigan State University (B.S., 1976); The University of Chicago (Ph.D., 1982)

Jody A. Esper, Ph.D., Assistant Professor of Psychology; Saginaw State University (B.S., 1975; B.A., 1978); Kansas State University (M.S., 1984; Ph.D., 1986)

Gene R. Evans, Ph.D., Associate Professor of Biology; Valparaiso University (B.S. in H.E., 1963); State University of Iowa (M.S., 1966); Purdue University (Ph.D., 1986)

Henning Falkenstein, Ph.D., Professor of Foreign Languages and Literatures; Philips University, Marburg (Staatsexamen in German and English, 1961; Ph.D., 1963)

John William Feaster, Ph.D., Walter G. Friedrich Professor of American Literature; Valparaiso University (B.A., 1963); Northern Illinois University (M.A., 1966); Purdue University (Ph.D., 1970)

Michael Louis Doria, Ph.D., Associate Professor of Mechanical Engineering; Case Institute of Technology (B.S., 1961; M.S., 1963); The Johns Hopkins University (Ph.D., 1965)

Maryann Dudzinski, Ed.D., Associate Professor of Education; Northern Illinois University (B.S.Ed., 1974; M.S.Ed., 1979; Ed.D., 1989)

Randa Jane Davich, Ph.D., Associate Professor of Foreign Languages and Literatures; Luther College, (B.A., 1978), The University of Chicago (M.A., 1982; Ph.D., 1989)

Kristen Lee Easton, R.N., M.S., Assistant Professor of Nursing; Valparaiso University (B.S.N., 1981); Purdue University (M.S., 1991)

Laurie Susan Eberhardt, Ph.D., Assistant Professor of Biology; Earlham College (B.A., 1985); University of Florida (M.S., 1990; Ph.D., 1994)

Charles A. Ehren, J.R., J.D., Professor of Law; Columbia College, New York (A.B., 1984); Columbia University School of Law (J.D., 1986); University of Pennsylvania Law School

James Frank Ehrenberg, Ph.D., Associate Professor of Theology; University of Illinois (B.A., 1976); Princeton Seminary (M.Div., 1980); Columbia University (M.Phil., 1986; Ph.D., 1990)

Sarah Glenn DeMaria, Ph.D., Associate Professor of Foreign Languages and Literatures; University of Illinois (B.A., 1966); Princeton University (M.A., 1984; Ph.D., 1983)

Jeffrey Scott Doebler, Ph.D., Assistant Professor of Music; Luther College (B.A., 1982); Valparaiso University (M.M., 1987); University of Minnesota (Ph.D., 1994)

Laura Gaston Dooley, J.D., Professor of Law; University of Arkansas (B.A., 1982); Washington University (J.D., 1986)

Glenn DeMaris, Ph.D., Leave of Absence; Associate Professor of Accounting; Valparaiso University (B.A., 1966)

Charles Laurie Susan Eberhardt, M.S., Associate Professor of Mathematics and Computer Science; Ball State University (B.S., 1979; M.A., 1981); Idaho State University (Ph.D., 1986)

Philip B. Glaesser, M.S.E.E., Visiting Assistant Professor of Electrical and Computer Engineering; University of Dayton (B.E.E., 1983; M.S.E.E., 1984)

Daniel Kenneth Goodman, Ph.D., Associate Professor of Electrical and Computer Engineering; University of Missouri, Rolla (B.S.E.E., 1969); Stanford University (M.S.E.E., 1967); University of New South Wales (Ph.D., 1971)

Naomi Joy Goodman, Dip. L., Technical Services Librarian with rank of Assistant Professor; University of Queens College (B.A., 1968); University of New South Wales (Library Science Diploma, 1969)

Thomas Evan Goyne, Ph.D., Assistant Professor of Chemistry; Union College (B.S., 1978); University of California, Los Angeles (Ph.D., 1983)

"Dennis Albert Guse, M.A., Assistant Professor of Communication; Wisconsin State University, Oshkosh (B.S., 1959); Indiana University (M.A., 1961)

Donna J. Guedon, M.B.A., J.D., Assistant Professor of Accounting; University of Pittsburgh (B.S., 1972; M.B.A., 1977); Valparaiso University U.D., 1992

Beverly Ruth Haley, R.N., M.S., Assistant Professor of Nursing; Ohio State University (B.S.N., 1971; M.S., 1978)

Thomas Gregg Hall, Ph.D., Professor of English; San Francisco State College (B.A., 1965); University of Indiana (M.A., 1968); Washington State University (Ph.D., 1971)

Alan F. Harre, Ph.D., Professor of Theology; President of the Concordia Senior College (B.A., 1969); Concordia Seminary, St. Louis (M.Div., 1966); Presbyterian School of Christian Education (M.A., 1967); Wayne State University (Ph.D., 1976)

Daniel W. Hart, Ph.D., Associate Professor of Electrical and Computer Engineering; the Frederick F. Jenny Professor of Emerging Technology; Valparaiso University (B.S.E.E., 1970); Purdue University (M.S.E.E., 1975; Ph.D., 1985)

Richard Gordon Hatcher, J.D., Professor of Law; Indiana University (B.S., 1958); Valparaiso University (J.D., 1956)

James P. Henderson, Ph.D., Professor of Economics; Beloit College (B.A., 1966); Northern Illinois University (M.A., 1967; Ph.D., 1977)

Darryl Dwayne Herrmann, Ph.D., Vice President for Student Affairs with rank of Associate Professor; University of Illinois (B.S., 1962); Northwestern University (M.S., 1965; Ph.D., 1969)

Garland Fisher Hicks, Jr., Ph.D., Associate Professor of Biology; St. Lawrence University (B.S., 1967); Michigan State University (Ph.D., 1975)

Jack Arthur Hiller, LL.M., Professor of Law; Valparaiso University (B.A., 1953; J.D., 1956); Yale University (LL.M., 1962)

Jack Merle Hires, J.D., Assistant Professor in the College of Business Administration; Indiana University, South Bend (B.G.S., 1980); Valparaiso University (U.D., 1983)

Patricia Marie Hogan-Vidal, M.L.S., Librarian with rank of Assistant Professor; Saint Mary's College (B.A., 1981); Indiana University (M.L.S., 1985)

Mark E. Holder, Ph.D., Assistant Professor in the College of Business Administration; University of Idaho (B.C., 1983; M.B.A., 1986); Kent State University (Ph.D., 1986)

Thomas Roger Holien, A.M., Visiting Instructor in History; University of Minnesota (B.A., 1985); Stanford University (A.M., 1989)

Sarah Holterhoff, M.L.S., Government Documents Librarian with rank of Associate Professor; Ohio State University (B.S.Ed., 1970); University of Wisconsin-Milwaukee (M.A.L.S., 1975)

Bruce J. Hravnak, Ph.D., Associate Professor of Physics and Astronomy; University of Pennsylvania (B.A., 1971; Ph.D., 1980)

Norman LeRoy Hughes, M.S., Associate Professor of Mathematics and Computer Science; Ohio Northern University (B.S., 1953); University of Wisconsin (M.S., 1953)

Stanley Leake Hughes, Ph.D., Assistant Professor of Psychology; University of Virginia (B.A., 1967; M.Ed., 1971); University of Rhode Island (M.A., 1988; Ph.D., 1991); University of California–San Francisco

David Malcolm Hull, Ph.D., Associate Professor of Mathematics and Computer Science; Wheaton College (B.S., 1960); Illinois Institute of Technology (M.S., 1972); University of Illinois, Chicago (Ph.D., 1982)

Gregory D. Hume, Ph.D., Assistant Professor of Geography and Meteorology; Marquette University (B.A., 1965); University of Wisconsin-Milwaukee (M.A., 1967; Ph.D., 1976)

Martin David Jean, D.M.A., Associate Professor of Music; Concordia College, Ann Arbor (B.A., 1982); University of Michigan (M.M., 1984; D.M.A., 1989)

Norman K. Jensen, M.S.M.E., Assistant Professor of Mechanical Engineering; Michigan Technological University (B.S.M.E., 1956); Purdue University (M.S.M.E., 1971); Illinois Institute of Technology

David Henry Johnson, Ph.D., Professor of Mathematics and Computer Science; Augustana College, Illinois (A.B., 1962); University of Illinois (M.S., 1964; Ph.D., 1971)
Mel Willis Pielko, Ph.D., Professor of Humanities and History in Chicagoland; Valparaiso University (B.A., 1968); Stanford University (M.A., 1970; Ph.D., 1980)

John Joseph Potts, C.P.A., J.D., Professor of Law; University of New Mexico (B.A., 1959); Boston College (J.D., 1974); Northeastern University (M.S., 1977)

Phillip Powell, M.A., Instructor in Communication; Northern Illinois University (B.A., 1982); Governors State University (M.A., 1993)

Renae Denise Prell, Ph.D., Assistant Professor of Geography and Meteorology; University of Wisconsin-Green Bay (B.S., 1983); University of Wisconsin-Milwaukee (M.A., 1988; Ph.D., 1992)

Walter Emil Rast, Ph.D., Professor of Theology; Concordia Seminary, St. Louis (M.Div., 1955; S.T.M., 1958); Harvard University; The University of Chicago (M.A., 1964; Ph.D., 1966)

Warren D. Rees, A.M.L.S., Educational Services and Research Librarian with rank of Assistant Professor; Minnesota Bible College (B.A., 1978); Southern Illinois University (J.D., 1985); University of Michigan (A.M.L.S., 1988)

Karl Edward Reichardt, C.M.A., Ph.D., Associate Professor of Accounting; Kansas State University (B.A., 1968); University of Denver (M.S.B.A., 1967); University of Missouri (Ph.D., 1972)

Ann L. Reiser, Ph.D., Associate Professor of Education; Concordia Teachers College, River Forest (B.S., 1962); Michigan State University (M.A., 1969; Ph.D., 1978)

Donna R. Rosetar, M.A., Assistant University Librarian for Access Services with rank of Assistant Professor; Michigan State University (B.A., 1971); The University of Chicago (M.A., 1977)

Perry W. Riffel, Ed.D., Assistant Professor of Education; Concordia College, Seward (B.S., 1969); Southern Illinois University (M.S.Ed., 1974); Oklahoma State University (Ed.D., 1990)

David L. Rowland, Ph.D., Professor of Psychology; Southern Illinois University (B.A., 1972); The University of Chicago (M.A., 1975; Ph.D., 1977)

Marian Jean Rubchak, Ph.D., Associate Professor of History; Douglass College (B.A., 1971); Rutgers University (M.A., 1972; B.S., 1988)

John Robert Ruff, Ph.D., Assistant Professor of English; St. John's University (B.A., 1973); College of St. Thomas (M.A.T., 1978); University of Wisconsin (B.S., 1985; Ph.D., 1991)

Cynthia Ann Russell, R.N., D.N.S., Associate Professor of Nursing; Acting Dean, College of Nursing; University of Wisconsin (B.S., 1979; M.S., 1982; D.N.S., 1991)

Mollie A. Sandooh, Ph.D., Associate Professor of English; Brown University (A.B., 1972); The University of Chicago (M.A. [Library School], 1976; M.A. [English Literature], 1979; Ph.D., 1985)

Freda Sullivan Scales, R.N., Ph.D., Professor of Nursing; Interim Dean, College of Business Administration; Marquette University (B.S., 1965); Indiana University (M.S.N., 1970; Purdue University (Ph.D., 1977)

Charles George Herbert Schaefer, Ph.D., Assistant Professor of History; Pacific Lutheran University (B.A., 1981); The University of Chicago (M.A., 1982; Ph.D., 1990)

* Nola Ann Schmidt, R.N., M.S.N., Assistant Professor of Nursing; Valparaiso University (B.S.N., 1983); University of Illinois (M.S.N., 1990)

William Joseph Schoech, P.E., Ph.D., Professor of Mechanical Engineering; Valparaiso University (B.S.E.E., 1966); Pennsylvania State University (M.S.I.E., 1969; Purdue University (Ph.D., 1971)

*Robby Creigh Schopp, Ph.D., Professor of History; Valparaiso University (B.A., 1986); University of Hawaii (M.A.); Taiwan National Normal University; University of Michigan (Ph.D., 1975)

David Lee Schroeder, Ph.D., Associate Professor in the College of Business Administration; Oklahoma State University (B.A., 1971; M.S., 1984; Ph.D., 1990)

Dean Manning Schroeder, Ph.D., Associate Professor in the College of Business Administration; Herbert and Agnes Schulz Professor of Management; University of Minnesota (B.S., 1980; Ph.D., 1986); University of Montana (M.B.A., 1980)

James Edward Schuler, P.E., M.S., Professor of Civil Engineering; Valparaiso University (B.S.C.E. 1959); Northwestern University (M.S., 1960)

Mark R. Schroew, Ph.D., Professor of Humanities in Christ College, DePaul College; Valparaiso University (B.A., 1967); Stanford University (M.A., 1969; Ph.D., 1978)

David William Scumpham, Ph.D., Associate Professor of Biology; The University of Chicago (B.A., 1975); Indiana University (Ph.D., 1985)

Gerald Raymond Seelye, P.E., Ph.D., Professor of Civil Engineering; DePaul College; Valparaiso University (B.S.M.E., 1963; M.S., 1966); University of Minnesota (M.S., 1971; Ph.D., 1973)

Virginia Colonnese Shingleton, Ph.D., Assistant Professor of Economics; University of Connecticut (B.A., 1975); University of Notre Dame (M.A., 1990; Ph.D., 1994)

Robert Sirko, M.F.A., Assistant Professor of Art; Indiana University (B.A., 1982; California Institute of the Arts (M.F.A., 1986)

*Dorothy Paulson Smith, R.N., J.D., Ph.D., Vice President for Business Affairs with rank of Professor; Whittier College (B.S., 1959); Western Reserve University (M.S., 1963); Yale University (Ph.D., 1967); Valparaiso University (J.D., 1987)

James Robert Smooff, J.D., Assistant Professor of Law; University of Southern California (B.A., 1986); Yale University (J.D., 1974)

Karen Smucker, Ph.D., Assistant Professor of Education; University of Virginia (B.S., 1987; M.Ed., 1991; Ph.D., 1995)

John Raymond Sorenson, Ph.D., Professor of Mathematics and Computer Science; Valparaiso University (B.S., 1957); Purdue University (M.S., 1959; Ph.D., 1966)

Arvid Frederic Sponberg, Ph.D., Professor of English; Augustana College, Illinois (B.A., 1969); The University of Chicago (M.A., 1977); University of Michigan (Ph.D., 1973)

Bradford Hall Spring, Ph.D., Professor of Civil Engineering; University of Idaho (B.C.E., 1980; M.S., 1981); University of Wisconsin (Ph.D., 1973)

T. D. Shirel Stanislaus, Ph.D., Assistant Professor of Physics and Astronomy; University of Sri Lanka (B.Sc., 1970); University of British Columbia (M.Sc., 1983; Ph.D., 1988)

*James Dill Sturtt, Ph.D., Professor of History; University of Maryland (B.A., 1967; M.A., 1961; Ph.D., 1965)

John Rudolph Steffen, P.E., Ph.D., Professor of Mechanical Engineering; Valparaiso University (B.S.M.E., 1967); University of Notre Dame (M.S.M.E., 1968; Rutgers University (Ph.D., 1974)

William Leroy Steinbrecher, Ed.D., Professor of Physical Education; Valparaiso University (B.A., 1967; B.S. in P.E., 1969); Indiana University (M.S. in P.E., 1963); Florida State University (Ed.D., 1969)

*Curtiss O. Stevers, M.A., Instructor in Geography and Meteorology; Valparaiso University (B.A., 1991); Western Michigan University (M.A., 1994)

Jerome J. Stieger, Ph.D., Associate Professor of Physical Education; Florida State University (B.S., 1964; M.S., 1969; Ph.D., 1978)

Richard Taylor Stith, III, J.D., Ph.D., Professor of Law; Harvard University (B.A., 1965; M.A., 1969); University of California, Berkeley (M.A., 1967); Yale University (M.Phil., 1971; J.D., 1973; Ph.D., 1973)

26On leave of absence, Fall Semester; retired December 31, 1995
27On Sabbatical Leave, Spring Semester
28On Study Leave
29On leave of absence, Spring Semester
30On Sabbatical Leave, Fall Semester
31On Sabbatical Leave, Fall Semester
32On Sabbatical Leave
33On Sabbatical Leave
Adjunct and Part-Time Faculty, 1995-1996

Michael Peter Adamczyk, M.M., Part-Time Instructor in Music
Jane Lilburn Aicher, M.Div., Part-Time Instructor in Theology
Larry D. Allen, M.M., Part-Time Instructor in Music
Elise Marta Alversen, M.S.N., Adjunct Assistant Professor of Nursing
Jose Arredondo, Ed.D., Part-Time Assistant Professor of Education
Susan Ortmeier Bachman, M.A., Part-Time Instructor in Philosophy
Andrew Breeze Baker, Jr., J.D., Adjunct Professor of Law
James Lee Barkow, M.M.Ed., Part-Time Instructor in Music
William R. Barrick, B.S., Part-Time Instructor in Communication
Joshua E. Bartunek, B.A., Part-Time Instructor in Sociology
Dorothy C. Bass, Ph.D., Adjunct Professor of Theology
Elizabeth Marie Beazal, J.D., Adjunct Professor of Law
Deena Sherman Borchers, M.A., Part-Time Instructor in Theology
Roger Bradford, J.D., Adjunct Professor of Law
Janis Breckenridge, M.A., Part-Time Instructor in Foreign Languages and Literatures
Helen Beck Brown, Ph.D., Adjunct Assistant Professor of Communication
Jeffrey C. Brown, M.M., Adjunct Assistant Professor of Music
Scott Arthur Bruzek, Ph.D., Part-Time Assistant Professor of Theology
John J. Burke, J.D., Adjunct Professor of Law
Patrick R. Burnett, M.A., Part-Time Instructor in English
C. L. M. Carmike, Jr., Ph.D., Part-Time Assistant Professor of Psychology
Bernard Arnold Carter, J.D., Adjunct Professor of Law
Curtis W. Cichowski, J.D., Adjunct Professor of Law, Assistant Dean of the School of Law
Craig Andrew Clark, M.S., Part-Time Instructor in Geography and Meteorology
Katherine Greer Clark, M.A., Part-Time Instructor in English

Eileen Nebe Coates, M.A.L.S., Adjunct Instructor in Foreign Languages and Literatures
Maura Elizabeth Cock, M.A., Part-Time Instructor in Music
Michele Corrazo, M.F.A., Part-Time Assistant Professor of Art
H. Jonathon Costas, J.D., Adjunct Professor of Law
Denise Elaine Criswell, M.S., Part-Time Assistant Professor of Physical Education
Barbara Crumpacker-Niedner, M.S.W., Part-Time Assistant Professor of Social Work
Bernice P. Daugherty, M.S.N., Part-Time Assistant Professor of Nursing
James C. Daugherty, B.S., Adjunct Instructor in Physical Education
M. Suzann Davids, M.F.A., Part-Time Instructor in Music
June DeForest, M.M., Part-Time Instructor in Music
Terry Dietz, M.A.L.S., Part-Time Assistant Professor of Education
Christopher Paul Donovan, B.M., Part-Time Instructor in Music
Homer A. Drew, M.S., Part-Time Assistant Professor of Physical Education
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[34] On leave of absence. Spring Semester
[35] On Sabbatical Leave, Fall Semester
[36] On leave of absence. Spring Semester
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Deceased, January 26, 1996

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Louis Franklin Bartelt, Jr., L.L.M., Louis and Anna Seegers Professor Emeritus of Law; Valparaiso University (B.A., 1944; J.D., 1947); Yale University (J.L.M.,1954); University of Wisconsin

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